



THE 13th INTERNATIONAL CONFERENCE OF THE SOCIETY FOR GLOBAL BUSINESS & ECONOMIC DEVELOPMENT

Managing the “Intangibles”: Business and Entrepreneurship
Perspectives in a Global Context

Università Politecnica delle Marche | Ancona, Italy

July 16 | 18 2014

CONFERENCE PROCEEDING

Referred Proceedings of the 13th International Conference of the Society for Global Business
and Economic Development

Managing the “Intangibles”: Business and Entrepreneurship Perspectives in a Global Context

Ancona – Italy, July 16-18, 2014

Università Politecnica delle Marche, Economics Faculty “Giorgio Fuà”

ISBN 978-88-907795-7-2



THE 13th INTERNATIONAL CONFERENCE OF THE SOCIETY FOR GLOBAL BUSINESS & ECONOMIC DEVELOPMENT

Managing the “Intangibles”: Business and Entrepreneurship
Perspectives in a Global Context

Università Politecnica delle Marche | Ancona, Italy

July 16 | 18 2014

Facoltà di Economia “Giorgio Fuà” | Piazzale Martelli, 8 www.sgbed2014.it

Referred Conference Proceedings

by

C. Jayachandran, Gian Luca Gregori

Principal sponsors

The Center for International Business, School of Business
Montclair State University, NJ

&

Department of Management, Economics Faculty “Giorgio Fuà”
Università Politecnica delle Marche, Italy

In cooperation with

Curtin Business School, Perth, Australia

Indian Institute of Management Bangalore, India

EADA Business School, Barcelona, Spain

Comenius University Faculty of Management in Bratislava, Slovakia

Manchester Business School, Manchester, UK

University of International Business & Economics, Beijing, China

The Hongkong Polytechnic University, Hongkong

University of Guadalajara, Guadalajara, Mexico

Sponsors

Major Financial Supporters

School of Management, Curtin University of Technology, Perth, Australia

Private Firms

UBI Banca Popolare di Ancona
Terre Cortesi Moncaro Soc. Coop. Agricola
Eko Music Group

Ethical Partner

Lega del Filo d'Oro

Under the patronage of

Regione Marche
AIDEA Accademia Italiana di Economia Aziendale
SIM Società Italiana Marketing
SIMA Società Italiana di Management
Sinergie – Rivista di studi e ricerche

Managing the “Intangibles”: Business and Entrepreneurship Perspectives in a Global Context

Coordinators

AFRICA

Johan de Jager
Research Professor
Tshwane University of Technology
Private Bag X680, Pretoria 0001, South Africa
Tel: 27 12 382 5627 Fax: 27 12 382 5627
E-mail: dejagerjw@tut.ac.za

Tunisia (Maghreb & North Africa)

Soumendra Kumar Dash
Principal Risk Officer
Financial Management Department
African Development Bank, HQs
BP - 323 - 1002 Tunis Belvedere
Tunis, Tunisia Republic
Mobile Phone +216 27 41 54 72
Email: somendash@gmail.com

ASIA & MIDDLE EAST

Central Asia

Jyldyz Aknazarova
Professor
Osh State University
331 Lenin St., Osh, 714000, Kyrgyz Republic
Tel: 996 777950410; Fax: 996 3222 57558
Email: akjyldyz@mail.ru

China

Ming Men
Professor of Finance
Dean, School of Distance Education
University of International Business & Economics
(UIBE)
Beijing, China
Tel: 86 10 6449 2680
Email: ming_men@yahoo.com

Dubai & the Middle East

Gouher Ahmed
Associate Professor of Strategy & International
Business - College of Business Studies
Al Ghurair University | PO Box 37374 Dubai | UAE.
Tel: 97144200223 Ext: 323 | Fax: 97144200224
Mobile: 971508367165
Email: gouher@agu.ac.ae; gouher@usa.net

Greater China Region

Sherriff T.K. Luk
Director, Brand Strategy & Innovation Centre at
PolyU Shenzhen Base, Dept. of Management &
Marketing, The Hong Kong Polytechnic University.
Tel: 852 2766 7143; Fax: 852 2765 0611
Email: sherriff.luk@polyu.edu.hk

Indian Sub-Continent

Vishnuprasad Nagadevara
Indian Institute of Management Bangalore
Bannerghatta Road, Bangalore 560 076, India
Tel: 91 80 2699 3144; Fax: 91 80 2658 4050
Email : nagadev@iimb.ernet.in

Vasanthi Srinivasan
Indian Institute of Management
Bannerghatta Road
Bangalore, India
Tel: 91-80-2699 3046
Email: vasanthipeter2004@hotmail.com

Indonesia

Nevi Danila
STIE Malangkucecwara College of Economics
(MCE) Jl. Terusan Candi Kalasan
Malang, 65142 Indonesia
Tel: 62-341-491813 Fax 62 341 495619
M+6281334716329/+6281555600726
E-mail: nevida@stie-mce.ac.id

Japan

Takao Fujiwara
Professor, Division of Planning and Management,
Dept. of Humanities & Social Engineering
Toyohashi
University of Technology
1-1 Hibarigaoka, Tenpaku Toyohashi,
Aichi 441-8580, Japan
Tel: 81 532 44 6946; Fax: 81 532 44 6947
E-mail: fujiwara@hse.tut.ac.jp

Macao

Alessandro Lampo, MBA, PhD(c)
Lecturer at University of Saint Joseph
Email: alessandro.lampo@usj.edu.mo

Malaysia

Juhary Ali
Universiti Utara Malaysia, Malaysia
Email: juhary@uum.edu.my

Singapore

Sudhi Seshadri
Associate Professor of Marketing Practice
Lee Kong Chian School of Business
Singapore Management University
50 Stamford Rd, Singapore 178899
Tel : 68280761 Fax : 68280777
E-mail: sudhi@smu.edu.sg

South Korea

Namjae Cho
Director, Digital Business & Management Center,
Chairman, Department of Bus Administration
Hanyang University
Seong-Dong, Hang-Dang #17 Seoul, Korea 133-791
Tel: 82 2 2220 1058; Fax: 82 2 2292 3195
Email: njcho@hanyang.ac.kr

Thailand & Vietnam

Sununta Siengthai
Associate Professor of HRM/Industrial Relations
School of Management,
Asian Institute of Technology
P.O. Box 4, Klong Luang, Pathumthani 12120
Tel: (662)-524-5661 Fax: (662)-524-5667
Email : s.siengthai@ait.asia

EUROPE & RUSSIA

Austria

Christian Stadlmann
Professor of Sales Management and Marketing
Faculty of Management
University of Applied Sciences Upper Austria
Wehrgrabengasse 1-3
4400 Steyr/Austria
Tel.: +43 (0)50804-33512
Email: christian.stadlmann@fh-steyr.at

Andreas Zehetner
Vice President International Affairs
Professor of Marketing
University of Applied Sciences Upper Austria
Wehrgrabengasse 1-3
4400 Steyr/Austria
Tel.: +43 (0)50804-33511
Email: andreas.zehetner@fh-steyr.at

Croatia

Srecko Goic
Full professor in Management and Human resources
Management
Department of Management (Head); Faculty of
Economics, University of Split
Cvite Fiskovica 5, 21000 SPLIT, CROATIA
Tel.: +385 (0)21 430610
Mob.: +385 (0)91 7958540
Email: goic@efst.hr

Czeck Republic

Pavel Štrach, Ph.D.,
Vice-Rector for International Relations
ŠKODA AUTO UNIVERSITY
Na Karmeli 1457 | 293 01 Mladá Boleslav | Czech
Republic
T: +420 326 8 23035 | F: +420 326 8 23113
E-mail: pavel.strach@savs.cz

Finland, Estonia, Norway, Sweden & Denmark

Vesa Routamaa
Professor of Management and Organization
Dept. of Management University of Vaasa
P.O. Box 700, FI-65101 Vaasa, Finland
Tel: 358 29 449 8462; 358 50 552 9696; Fax: 358 6
317 5210
Email: vmr@uwasa.fi

Germany

Harald Kupfer
Professor and Scientific Director of Studies
FOM University of Applied Sciences Nuremberg
City Park Center, Zeltnerstr. 19,
90443 Nuernberg, Germany
Tel: 49 9187 2212; Fax: 49 9187 2212
Email: harald.kupfer@fom.de

Italy

Michela Mason
Department of Economics and Statistics,
University of Udine
Via Tomadini, 30/A; 33100 UDINE, Italy
Tel: +39 0432 249 223
Email: michela.mason@uniud.it

Poland

Pawel Kawa, Ph.D.
Vice-Rector for Scientific Research
Cracow School of Banking and Management
Al. Kijowska 14
30-079 Cracow -Poland
E-mail: kawap@wszib.krakow.pl

Dr. Marcin Skurczynski
University of Gdansk
E-mail: marcin.skurczynski@gmail.com

Romania

Cezar Scarlat
Director, Doctoral School - Entrepreneurship,
Business Engineering and Management
University Politehnica of Bucharest
Splaiul Independentei No. 313, Sector 6
Bucharest, Romania Tel: +40 722 290760
Email: cezarscarlat@yahoo.com

Slovak Republic

Jan Rudy
Professor and Director, MBA Program
Faculty of Management
Comenius University in Bratislava, Slovak Republic
P.O.Box 95 820 05 Bratislava 25
Tel: 421 2 50117521, Fax; 421 2 50117527
E-mail: jan.rudy@fm.uniba.sk

Zuzana Kovacicova,
Faculty of Management,
Comenius University in Bratislava

Slovak Republic
Odbojarov 10
P. O. Box 95
820 05 Bratislava 25
Tel: +421 2 50117 477; +421 902 946 511
zuzana.kovacicova@fm.uniba.sk

Slovenia, Swiss, Lichtenstein, Bosnia and Herzegovina

Štefka Gorenak
Senior Lecturer
Faculty of Commercial and Business Sciences
Toneta Melive 12
3210 Slovenske Konjice, Slovenia
Tel: 00386 3 57 55 238, 00386 3 428 55 59
Mobile: 00386 31 37 77 52
E-mail: gorenak.stefka@siol.net

Spain, Portugal & France

Ramon Noguera
Academic Dean, EADA Business School
C/Aragon, 204, 08011, Barcelona, Spain
Tel: 34 934 520 844-118
Email: rnoguera@eada.edu

United Kingdom & Holland

Nitin Sanghavi
Director, The Retail Centre
Manchester Business School
Booth Street West, Manchester M15 6PB, UK
Tel: 44 161 275 6481 Fax: 44 161 275 65 42
Email: nitin.sanghavi@mbs.ac.uk

Oskar Kayasan
Professor of International Strategy
Director: European Research Centre
45 Russell Square
London WC1B 4JP
Mob: +44 7900865025
Fax: +44 20 79074609
Email: oskarkay@gmail.com

OCEANIA**Australia**

Alan Nankervis
Professor of HRM, School of Management
Curtin Business School
Curtin University of Technology, Perth, Australia
Email: A.Nankervis@curtin.edu.au

New Zealand

Vasanthi Peter
School of Business, Open Polytechnic
Kuratini Tuwhera
3 Cleary Street, Waterloo
Private Bag 31914, Lower Hutt 5040
Tel: +64 4 9135767 or 0508 650200 ext:5767 Fax
+64 4 9135948
Email: Vasanthi.peter@openpolytechnic.ac.nz

The AMERICAS**NORTH AMERICA****Canada**

Bernard M. Wolf
Director, International Business Designation
Professor Emeritus of Economics and International
Business
Schulich School of Business, York University
4700 Keele Street, Toronto, ON, Canada M3J 1P3
Tel: 416-736-2100, ext. 77933 or 416-736-5067
(ECON)
Fax: 416-736-5687
Email: bwolf@schulich.yorku.ca

USA

Yam B. Limbu
Assistant Professor of Marketing
School of Business, Montclair State University
1 Normal Avenue, Montclair, NJ, USA
Tel: 973 655 3361; Fax: 973 655 7673
Email: limbuy@mail.montclair.edu

Philip LeBel
Professor Emeritus,
Montclair State University, School of Business
(PA449)
1 Normal Avenue
Tel: 973 655 7464; Fax: 973 655 7715
Email: lebelp@mail.montclair.edu

Sivakumar Venkataramany
Professor of International Business
Suite 223, Dauch College of Business and Economics
Ashland University
401, College Avenue

Ashland, OH 44805 USA
Phone: (001) 419-289-5956
Fax: (001) 419-289-5910
Email: svenkata@ashland.edu

Vasant H. Raval,
Professor of Accounting
Heider College of Business
Creighton University
Omaha, Nebraska, 68178
Ph: 402 280 5518; Fax: 402 280 5565
Email: vasantraval@creighton.edu

CENTRAL and SUD AMERICA**Mexico**

José Sánchez-Gutiérrez
Jefe del Departamento de Mercadotecnia y Negocios
Internacionales
Centro Universitario de Ciencias Económico
Administrativas U de G.
Presidente de la Red Internacional de Investigadores
en Competitividad
Periférico Norte 799 Edificio G-306
Zapopan, Jalisco C.P. 45100
Tel y fax: (33) 3770 3343
Email: jsanchez@cucea.udg.mx

Ricardo Arechavala Vargas
IDITpyme - CUCEA
Edificio de Vinculación Empresarial
Periférico Nte. 799
Zapopan, Jalisco, México CP 45150
Phone: (52) 33 3770 3499 X 25509
Email: yukoneagle2@yahoo.com

Brazil

Mario Henrique Ogasavara
Professor in International Business Strategy and
Innovation
Master and Doctoral Program in International
Management
ESPM (Escola Superior de Propaganda e Marketing),
Sao Paulo, Brazil
Tel: [+55 11 5085-4689](tel:+551150854689)
Email: mario.ogasavara@espm.br

SGBED President

Dr. C. Jayachandran

Professor and Director, The Center for International Business
Department of International Business
School of Business, Montclair State University, USA

Conference Research Committee

Dr. Gian Luca Gregori

Professor and Vice Rector Università Politecnica delle Marche, Ancona, Italy

Dr. Stefano Marasca

Professor, Department of Management, Università Politecnica delle Marche, Ancona, Italy

Dr. Marco Cucculelli

Professor, Department of Economics and Social Sciences
Università Politecnica delle Marche, Ancona, Italy

Co-chairs

Tony Travaglione, Curtin University, Perth, Australia

Ramon Noguera, EADA Business School, Barcelona, Spain

Dusan Soltes, Comenius University in Bratislava, Slovak Republic

Vishnuprasad Nagadevara, Indian Institute of Management Bangalore

Vesa Routamaa, University of Vaasa, Finland

Sherriff T.K Luk, Hong Kong Polytechnic University

Nitin Sanghavi, Manchester Business School, UK

Vasant H. Raval, Creighton University, USA

Jose Sanchez Gutierrez, University of Guadalajara, Mexico

Harald Kupfer, FOM University, Germany

Johan de Jager, Tshwane University of Technology, South Africa

Pawel Kawa, Cracow School of Banking and Management, Poland

Ivan Russo, University of Verona, Italy

Gianpaolo Vignali, University of Manchester, UK

Tonino Pencarelli, Università degli Studi di Urbino “Carlo Bo”, Italy

Host Coordinator

Dr. Silvio Cardinali, Professor of Marketing and communication
Department of Management
Università Politecnica delle Marche, Italy

Special thanks to the International Reviewers who have cooperated to the review process

Name	Affiliation	Country
Amalia Çipi	University of Vlora	Albania
Gouhar Ahmed	Al Ghurair University	United Arab Emirates
Edward D. Bewayo	Montclair State University	USA
Angelo Bonfanti	Università di Verona	Italy
Silvio Cardinali	Università Politecnica delle Marche	Italy
Enrico Cori	Università Politecnica delle Marche	Italy
Marco Cucculelli	Università Politecnica delle Marche	Italy
Alessia D'Andrea	Università Politecnica delle Marche	Italy
Patrizia De Luca	Università degli Studi di Trieste	Italy
Oscar Domenichelli	Università Politecnica delle Marche	Italy
Piia Edinger	University of Vaasa	Finland
Srecko Goic	University of Split	Croatia
Stefka Gorenak	Faculty of Commercial and Business Sciences	Slovenia
Antonio Iazzi	Università del Salento	Italy
Yam B. Limbu	Montclair State University	USA
Richard Lord	Montclair State University	USA
Stefano Marasca	Università Politecnica delle Marche	Italy
Maria Rosaria Marcone	Università Politecnica delle Marche	Italy
Michela Mason	Università di Udine	Italy
Juan Mejía-Trejo	Universidad de Guadalajara	Mexico
Mirella Migliaccio	Università degli studi del Sannio	Italy
Graziella Pacelli	Università Politecnica delle Marche	Italy
Giovanna Pegan	Università degli Studi di Trieste	Italy
Andrea Perna	Uppsala Universitet	Sweden
Vasant H. Raval	Creighton University	USA
Celestino Robles-Estrada	Universidad de Guadalajara	Mexico
Vesa Routamaa	University of Vaasa	Finland
Ivan Russo	Università di Verona	Italy
Jose Sanchez-Guiterrez	Universidad de Guadalajara	Mexico
Nitin Sanghavi	University of Manchester	UK
Cezar Scarlat	University Politehnica of Bucharest	Romania

Paola Signori	Università di Verona	Italy
Ram Subramanian	Montclair State University	USA
Christian Stadlmann	University of Applied Sciences Upper Austria	Austria
Dewi Tajuddin	Universiti Teknologi MARA	Malaysia
Valerio Temperini	Università Politecnica delle Marche	Italy
Oronzio Trio	Università del Salento	Italy
Juan Antonio Vargas-Barraza	Universidad de Guadalajara	Mexico
Ying Wu	Salisbury University	USA

Special thanks to: Martina Broglietti, Paola Palanga, Alex Bizzarri, Sara Bartoloni, Laura Moscatelli, Luca Marinelli, Lucia Pizzichini, Silvia Borroni, Marco Pierantonelli, Federica De Santis, Daniele Scattolini.

Managing the “Intangibles”: Business and Entrepreneurship Perspectives in a Global Context

Nature and Scope of the Conference

Compared to tangible assets, “intangibles”, or knowledge-based resources, are among the most important determinants of institutions, business and industry performance. Recognizing their role in promoting entrepreneurship, firm performance and socio-economic advancement, several developed countries have recently estimated the economic value of R&D and other forms of innovations, and have integrated them into the measurement of GDP. At the same time, several studies have questioned the net benefits of globalization and the impact of “intangibles” on the level and distribution of income and wealth. These mixed results indicate that the role of intangibles and knowledge resources as a source of equitable development is an open issue and hence of significance for theoretical and empirical research. In this framework, the 13th Conference of the Society for Global Business and Economic Development (SGBED) invites empirical and conceptual research with a focus on the role of the “intangibles” in advancing equitable development in a global business and institutional perspectives.

Topics

- Human Capital Management
- Knowledge Management, Online Education, Higher Education & Executive Training
- Knowledge Transfer within and Across Organizations
- Innovation and knowledge diffusion Role of Information Communication Technologies (ICT), R&D Networks, Technology Clusters, Science Parks, Business Incubators
- Innovation Models: Reverse, Frugal, Incremental & Disruptive
- Managing R&D & Patents & Intellectual Property Rights
- Accounting Standards, Valuation & Reporting of Intangibles
- Transfer Pricing, Taxation Issues of Intangibles
- Marketing of Intangibles: Patents, Designs, Software, Digital Products, Apps
- Brand Management; Brand Equity
- Multi-channel Strategies: Digital Marketing; Customization; Social Media; E-Commerce
- +Managing Global Customer, Supplier and other stakeholder Relationships
- Managing intangibles in the global supply chain and operations management
- Managing intangibles in services businesses
- Financial intangibles
- Entrepreneurship in the Knowledge Economy
- Ethics and Corporate Social Responsibility (CSR), Environmental Protection & Sustainability

Managing the “Intangibles”: Business and Entrepreneurship Perspectives in a Global Context

Supporting Peer reviewed Journals for selected papers

- The International Journal of Business and Globalisation – IJBG (ISSN 1753-3627) – Special Issue: “Internationalisation of SME’s, Globalisation and Intangibles Assets”
- The International Journal of Entrepreneurship and Small Business – IJESB (ISSN 1476-1297) – Special Issue: “Entrepreneurship and Intangibles”
- International Journal of Applied Behavioral Economics (IJABE) (ISSN: 2160-9802)
- International Journal of Management Cases (ISSN 1741-6264) – Special Issue
- International Journal of Sales, Retailing and Marketing (ISSN 2045-810X) – Special Issue
- International Journal of Pharmaceutical and Healthcare Marketing (ISSN 1750-6123)
- Sinergie Rivista di Studi e Ricerche (ISSN 0393-5108)
- Small Business / Piccola impresa (ISSN 0394-7947)

INDEX

Entrepreneurial Capital in the Knowledge Economy

Contextual Success Factors for Social Entrepreneurship: Comparing Africa and India

Edward D. Bewayo, Ram Subramanian

Intangibles and Entrepreneurial Capital

Paola Demartini, Francesca Cesaroni, Mara Del Baldo, Paola Paoloni

Rich-to-poor Diaspora Ventures: How Do They Survive?

Aki Harima, Jörg Freiling, Maria Elo

The impact of entrepreneurship in a modern enterprise

Jože Kocjančič

Accelerating entrepreneurship via intensive learning programs

Mirella Migliaccio, Francesca Rivetti

Entrepreneurs' social skills and access to external resources: the role of social capital

Amina Omrane

Antecedents of entrepreneurial activity : theory & evidence from Asia

Justin Paul, Archana Srivatava

Entrepreneur as an Intangible Asset

P M Rao

Innovative entrepreneurs: who are they?

Vesa Routamaa, Piia Edinger, Tiina Brandt

Development of a Model for Human Capital Management for the Success of Corporates

Arihant Sogani, Aqila Rafiuddin, Anomitra Banerjee

Social entrepreneurship and social innovation through the lens of the value co-creation process

Marco Pellicano, Carmela Tuccillo, Massimiliano Vesci, Orlando Troisi

Valuation & Reporting of Intangibles

An Empirical Analysis to Assess Intangible Assets in Tunisia and Its Relevance in the Knowledge - Based Economy

Soumendra K. Dash, Dhekra Azouzi

Intellectual capital information in sustainability reports: an analysis of Italian Banking sector

Maria Assunta Baldini, Romilda Mazzotta, Giovanni Bronzetti

Managing Intellectual Property in High-tech Services: a case study of an engineering company

Qing Cao

Measuring intangibles through the balanced scorecard: the case of an Italian company

Marco Gatti

Converting knowledge into financial value: lessons from a joint-venture project

Marco Giuliani, Maria Serena Chiucci, Stefano Marasca

Family Ownership Structure and Firm Value (Case study on Big-Cap Public Companies)

Juniarti

The Relationship between Intellectual Capital and Financial Performance of Listed Companies – The case in Hong Kong

Stephen C.Y. Li, Anthony C.T. Ku

The role of intangibles in improving the predictive ability of internal rating systems

Vincenzo Formisano, Michele Modina, Andrea Quintiliani

Is it Time for Internally Generated Intangible Assets to be Recognized in Financial Statements of U.S. Companies?

Ramesh Narasimhan, Shifei Chung

Intellectual Capital as a determinant of Competitiveness: SMEs Manufacturing Industry in Guadalajara, Mexico

Jose Sanchez-Gutierrez, Elsa Georgina Gonzalez-Urbe, Silvio Genaro Hernandez-Coton

Relevance and Development of Intangibles in European Companies' Balance Sheets – an Empirical Perspective

Sebastian Serfas

Why the Future of Transfer Pricing is linked to improving the Valuation of Intangibles

Oliver Treidler

Knowledge management for knowledge development: lessons learnt while implementing international projects by multicultural teams

Carmen-Laura Zarzu, Cezar Scarlat

Human Capital Management and Development

Explaining knowledge sharing behaviours through an organizational form- and motivation-based perspective

Vincenzo Cavaliere, Sara Lombardi

Communities of Practice's dark side. Some evidences from a retailer organization

Fabio Fraticelli, Francesca Negri, Enrico Cori

Impact of Mobbing on Health and Absenteeism among Nurses

Srećko Goić

Intangibles and creation of value in an integrated formal and informal eLearning environment

Sabrina Leone

Executive Compensation in Intangible Intensive Industries

Richard A. Lord

Investigating how inter-firm relational features influence absorptive capacity and content creativity of a joint production team : focusing on media content business

Joonseo Moon, Won Jun Lee

Examining the Role of Short Break on Proactive Behavior: A Self-Regulatory Resource Perspective

Kan Ouyang, Wing Lam, Ziguang Chen, Libin Shen

Get Strategic Human Resource Management Really Strategic Strategic HRM in Practice

Ján Rudy, Jana Fratričová

The multiple attributes of professional workers in engineering consulting and design services firms

Gabriel Sorin Stroe

Turning Talent Strategy as a Successful Business Strategy for Malaysian Banking Industry: A Quantitative Analysis

Dewi Tajuddin, Rosalan Ali, Badrul Hisham Kamaruddin

Psychological Aspects of the Business Development: Personality Factors of the Successful Innovative Activity

Sergey Yagolkovskiy

Leadership & Education

Relationship between leadership and variable compensation with psychological empowerment and the effectiveness of mid-level employees of Mexico's largest companies

Mónica Blanco-Jiménez, Adriana Segovia-Romo, Joel Mendoza-Gómez

Knowledge transfer & development across entrepreneurial generations: evidence from historical family-owned SMEs

Mariacristina Bonti, Enrico Cori

Leadership expectations ranked by different personalities

Tiina Brandt, Piia Edinger

The construction of knowledge based in online education: a case study in a Brazilian Public University

Aline Santos De Almeida, Maria Conceição Melo Silva Luft, Rafael Fernandes De Mesquita

The use of the ICT and its impact on the educational process of teaching

Araceli Duran-Hernandez, Juan Gaytan-Cortes, Judith Mireya Cornejo-Macias

Eight years into career after business degree – Influences of gender and personality on career success

Piia Edinger, Tiina Brandt, Vesa Routamaa

Constructing leadership with Generation Y

Susanna Kultalahti

To study the concept of transformational and Transactional leadership on employees with special reference to Hindustan Computer Limited Noida

Rajeshwari Narendran, Shreshtha Dabral

Perspective of American Students after the Deep Recession of 2008

Harbans Singh

How Sensitive Is Schooling Achievement to Instructional Time?

Ying Wu, Derek D. Wu

Innovation capital, spin off, start up and incubators

How do SMEs appropriate the value from innovation? An empirical analysis in medium high-tech industries

Lara Agostini, Anna Nosella, Benedetta Soranzo

Internationalization of Technology Startup Firms from Emerging Economies: Leveraging Intangible Assets in Turbulent Environments

Ricardo Arechavala-Vargas, Francisco Leonel-de-Cervantes, Mónica García-Mora

Next generation Manufacturing: the Mediterranean Fab Lab case study

Antonio Botti, Enzo Marinato

Innovation as a competitiveness factor in Guadalajara's SME's manufacturing Industry

Cinthy Karina Camacho-Sotelo, Jose Sanchez-Gutierrez, Paola Irene Mayorga-Salamanca

Regional Context and Academic Spin off: Effective or Critical Cooperation?

Christian Corsi, Daniela Di Bernardino

Knowledge Management & Generational Change: the impact on local SMEs

Concetta Lucia Cristofaro, Anna Maria Melina, Rocco Reina, Marzia Ventura

A framework for frugal innovation in medical device industry

Arvinder P. S. Loomba

Complementary and Synergistic Competencies in Technology Transfer: A New Model of a Spin-off Creation Program

Chiara Mazzi, Riccardo Passeri, Marco Bellandi

Segmenting, targeting and positioning the mobile payment services

Andreea Raluca Wurster, Cezar Scarlat

Analysis of operations in the context of manufacturing, and its impact on the competitiveness of the manufacturing SMEs in the metropolitan area of Guadalajara, Mexico

Guillermo Vazquez-Avila, Jose Sanchez-Gutierrez, Juan Francisco Gomez-Cardenas, Dario Montoya-de la Torre

Relational capital & communication

Branded Apps for high-involvement products: the results of an empirical study

Sara Bartoloni, Federica Pascucci

Analyzing Brand Values with a Semiotic Approach

Marianna Boero

How Companies can contribute to the Territory-identity Development: Empirical Evidences from Italian Businesses Cases

Angelo Bonfanti, Paola Castellani, Chiara Rossato

Does communication support intangibles? Empirical evidences on Monza and Brianza' SMEs

Roberto Chierici, Maria Cristina Morra

The Relationship between Brand Equity and Country of Origin from the Retailer's Perspective: A Literature Review

Laura Grazzini, Gaetano Aiello, Raffaele Donvito

When the Museum tells the Company

Floriana Iannone

Joint effects of message framing and evidence type on early disease detection and prevention messages

Yam B. Limbu

Corporate Success: an Analysis of Customer Engagement and Brand Loyalty

Deeksha Madhusudhan, Aqila Rafiuddin

Managing and evaluating the corporate brand: a model suggestion through the case analysis

Fabrizio Mosca, Cecilia Casalegno

Symbolically valuable for the customer? A longitudinal analysis of the interlinkages between brand and relationship development activities of a furniture manufacturer

Anu Norrgrann

Marketing Communication and the Semantics of Information

André Stuth

User's attitude to publicity in social webs. A study developed in Mexico

Juan Antonio Vargas-Barraza, Yolanda Araceli Martinez-Padilla, Juan Gaytan-Cortes

Brand Preferences of Slovak Consumers, *Lucia Vilčeková*

Service marketing & Relationship marketing

Service quality and profitability. An empirical study on clients and financial advisors of the Allianz Bank F.A

Antonella Angelini, Martina Bianchi

The implementation of the concept of relationship marketing in cluster management

Bogusław Bembenek

Barriers for effective International Relationship Marketing in Emerging Markets

Federica Bressan, Paola Signori

From product to service: exploring the main barriers of the servitization for the Italian footwear manufacturing companies

Ilenia Confente, Andrea Buratti

The trigger for positive word of mouth in the after sales service

Ilenia Confente, Ivan Russo

Innovation Propensity and Performance in Tourism Industry: the Mediating Role of Trust in Public Authorities and Market Structure Perception

Giacomo Di Foggia

Understanding Sequences of Business Interactions and their Influence on Cross-Cultural Inter-Team and Intra-Team Negotiations

Cheryl Dowie, Claudio De Mattos, Oscar De Bruijn

Customer Participation Behavior for Value Co-creation in High- Versus Low- Contact Services: The Roles of Trust-in-Personnel and Trust-in-Brand

Sherriff T. K. Luk, Esther L.Y. Li, Ben S. Liu

Suppliers' Segmentation Process: a business-relationship perspective

Maria Rosaria Marcone

The customer Relationship Management (CRM) and its impact on competitiveness in the Restaurant industry of Guadalajara, Mexico

Ileana Elizabeth Ruvalcaba Rivas, Jose Sanchez-Gutierrez, Juan Mejia-Trejo

The Role of Service Provider in Place Management

Marcello Sansone

The importance of automotive services in the distribution business and their critical factors for success

Christian Stadlmann, Barbara Ehrenstorfer

The intangible resources in the relationship between real estate agents and customers. What is the role of trust?

Oronzo Trio

Marketing of Intangibles

Global sourcing and back-shoring: towards a possible shift of sourcing strategies?

Fabrizio Baldassarre, Raffaele Campo

Applying the *Geomarketing* Concept to Develop a Car Dealership Network In Iasi, Romania

Ovidiu Dascălu

Innovation, Internationalisation, and Business Performance: Case Studies from the Italian Furniture Industry

Giovanna Pegan, Patrizia De Luca

Creative cities: emerging Italian cases

Maria Della Lucia

An ugly store in a beautiful place? Exploring the effect of store interior and urban design on consumers' inferences and store patronage intentions

Alessandro De Nisco, Michela C Mason

Who Needs Big Data Computing?

Thomas Lenhard

An evaluation of the effects of consumer cultural values on self-congruity: the case of "Apple" in the Chinese market

Longfei Li, Nitin Sanghavi, Claudio De Mattos

B2B vs B2C, which different approaches to social media marketing. Empirical evidence from the Marche Region

Luca Marinelli, Laura Moscatelli

Customer Knowledge to improve the Innovation: The Relationship in México

Juan Mejía-Trejo, Jose Sanchez-Gutierrez, José Francisco Haro-Beas

The effect of visual layout of assortment breadth and depth on individual perceptions of assortment size and evaluations

Gabriele Pizzi, Daniele Scarpì

Internet of Things and value co-creation in the cultural industry towards Service Dominant logic perspective

Aurelio Tommasetti, Massimiliano Vesci, Carmela Tuccillo, Orlando Troisi

The Impact of Information technology, Information and Communication Flow and Storage Control

Michal Gregus, Filip Petrinec

Business strategy

TQM firms, risks identification and the use of non-financial performance measures: an empirical investigation

Antonio Costantini, Filippo Zanin

Managing intangible assets in international contexts: an empirical analysis on Monza and Brianza SMEs

Laura Gavinelli, Alice Mazzucchelli

Hybrid Strategy, Ambidexterity And Environment: Toward An Integrated Typology

Alexandre Lapersonne, Nitin Sanghavi, Claudio De Mattos

Micro-enterprises and the internet adoption: an Italian case study

Federica Pascucci, Marina Gagliarano, Gian Luca Gregori, Silvio Cardinali

A Structural Model to Explain Customer Repurchase Intentions in Co-operative Banks

Rubens Pauluzzo, Enrico Geretto

Development and exploitation of relational resources in IT outsourcing

Paolo Popoli

Multi-channel Strategies: Digital Marketing, Customization, Social Media, E-Commerce

Sustainability and SMEs: the case of CSR4UTOOL web application

Laura Corazza

Web marketing and the SMEs: needs, problems and opportunities. An empirical study in the Marche Region

Gian Luca Gregori, Luca Marinelli, Valerio Temperini

The innovation approach to the internet-marketing efficiency evaluation

Larisa Kapustina, Tatiana Sysoeva

Digital Marketing in Germany – functional principles, status, development and perspective

Ralf Lehmann

The Social Media Manager as a Reputation's Gatekeeper: an Analysis from the New Institutional Theory Perspective

Andrea Moretti, Annamaria Tuan

Privacy, security and utility perceptions on social commerce by Mexican consumers, and its impact on adoption of Social Network Sites as marketing medium

Celestino Robles-Estrada, Laura M. Alvarado-Benítez, Alberto A. Suastegui-Ochoa

Social media use by government to reduce damages following a natural disaster—Inhabitants' communication, e-government, and intangible social capital of collaboration

Naoya Yasugi, Liu Cahngyu, Yasuyuki Nishigaki

Tourism

Brand management in the hotel industry: from company to network brand. Opportunities and limits of networking for small-sized hotels

Selena Aureli, Fabio Forlani, Tonino Pencarelli

An interpretative model for the Web image analysis: the case of a wine tourism destination

Monica Fait, Federica Cavallo, Amedeo Maizza, Lea Iaia, Paola Scorrano

Recovery and revitalization of disadvantaged areas by transfer of “ethical capital” – Some empirical evidence in the wine sector

Maria Vincenza Ciasullo, Giuseppe Festa

Linking CRM and competitiveness in the hotel industry

Elsa Georgina Gonzalez-Uribe, Jose Sanchez-Gutierrez, Juan Mejia-Trejo

Intangibles as feedstocks to capability differentials: a DMO perspective

Antonio Iazzi, Pierfelice Rosato, Silvia Gravili

Seeking an adrenalin rush or the chance to relax? Analysis of motivation of adventure tourists. An Italian case study

Michela Mason, Luca Gos

Corporate Social Responsibility & Sustainability

How large companies communicate sustainability in an international environment: a crossroads between grounded information and greenwashing

Raffaele Campo, Fabrizio Baldassarre

Is environmental sustainability a strategic driver? An explorative investigation in the Italian mining sector

Francesca Ceruti, Angelo Di Gregorio

Dynamics of Corporate Social Responsibility in Albanian Joint Stock Companies

Amali Çipi, Shyqyri Llaci, Fernando A. F. Ferreira

Attitude and perception towards green products in Macao: an exploratory study

Alessandro Lampo, Sin U Leong

Private ordering and sustainability goals: concrete sustainability deliverables (CSDS) and virtual proximate communities (VPCS) as pathways toward effectiveness

Edward A. Morse, Vasant Raval

Assurance on sustainability reports: why and who?

Belen Fernandez-Feijoo, Silvia Ruiz, Silvia Romero

Exploring The Relationship Between Green Innovations And Internationalization

Maria Chiarvesio, Valentina De Marchi

Intangibles and market analyses

Knowledge Inequality, Entrepreneurship, and Agricultural Transformation – A Conceptual Framework and Lessons from Rural South India

Suresh C Babu, C. Jayachandran

Some Considerations on Fiscal Problems of Eurozone Countries

Alessio Lokar, Lubica Bajzikova

Similarities and differences in the capital structure of the transformation industry and commerce in Mexico

Juan Gaytan-Cortes, Juan Antonio Vargas-Barraza, Antonio de Jesus Vizcaino

Economic tools induced by real estate development process in Visegrad Countries

Július Golej

Local Supporting Industry Linkages from Japanese FDI in Mexico's Western Region

Leo Guzman-Anaya

Towards A Stakeholder Model of Risk Governance

Habibun Nisa Mohamed Ajmal

International Trade and Entrepreneurship – Why Germany is so overwhelming among EU-27-countries?

Arto Lahti

Founding Family CEO Pay Incentives and Investment Policy: Evidence from a Structural Model

Mieszko Mazur, Betty H.T. Wu,

Credit quality, bank provisioning and systematic risk in banking business

Josanco Floreani, Andrea Paltrinieri, Maurizio Polato, Flavio Pichler

Does the volatility of interest rates affect the value of investment projects? A real option investigation

Luca Vincenzo Ballestra, Graziella Pacelli, Davide Radi

Empowerment through E-Governance in Developing Economies: The Case of India

Sivakumar Venkataramany

A Review of Theories on Foreign Direct Investment

Alma Zisi

Entrepreneurial Capital in the knowledge Economy

Contextual Success Factors for Social Entrepreneurship: Comparing Africa and India

*Edward D. Bewayo, bewayoe@mail.montclair.edu
Ram Subramanian, subramanian@mail.montclair.edu
Montclair State University, NJ, USA.*

Contextual Success Factors for Social Entrepreneurship: Comparing Africa and India

Abstract

President Uhuru Kenyatta of Kenya in 2009 said that “Social Entrepreneurship has come of age” (Kenyatta, 2009). He was at the celebration ceremonies of the Schwab Social Entrepreneur of the Year award, sponsored by the Schwab Foundation for Social Entrepreneurship. Social entrepreneurship has in the last twenty years been recognized internationally as a new and more serious effort to address humanitarian problems such as poverty and disease. The Schwab Foundation and a growing number of similar organizations are attempts to promote social entrepreneurship globally, especially in the developing world. Their programs identify successful social entrepreneurs and social enterprises and help them to expand their social impact. The Ashoka Social Entrepreneurship Foundation has over 3000 successful social entrepreneurs, called Ashoka fellows, they are helping to expand their social impact. Information about Ashoka fellows is posted on the Ashoka Foundation’s website. What factors led to the initial success of these social entrepreneurs? In this study we compare successful social entrepreneurship in Africa and India. The basic premise of this study is that the roads to successful social entrepreneurship in Africa and India are significantly different, given the fairly obvious differences in the political, economic and socio-cultural environments in the two regions. Among the leading differences are political unity and stability and political disunity and instability in India and most African countries, respectively. For the purpose of the study, we compare 105 African fellows with 75 Indian fellows. We found significant differences between African and Indian fellows in terms of the specific poverty/economic development issues they attempted to address, the population segments they focused upon, and the factors that inspired them to become social entrepreneurs. There were no differences related to how the fellows financed their social ventures.

Introduction

Aleke Dondo, the founder of the largest microfinance organization (Juhudi Kilomo) in Kenya was the Schwab Social Entrepreneur of the Year in Africa in 2011. Celebrating this award, Mr. Uhuru Kenyatta, then deputy prime minister of Kenya and currently Kenya’s President, declared that “Social entrepreneurship has come of age” (Kenyatta, 2009). Mr. Kenyatta was merely echoing what many observers on the subject have been saying for the last 20 years. Indeed, in the last 10 years the judges for the Nobel Prize as well as the Right Livelihood Award have recognized the contributions of leading social entrepreneurs and awarded three of them these honors. One recipient is Muhammad Yunus of the Grameen Bank. Social entrepreneurship is being celebrated because it attempts to address social problems traditional entrepreneurs and governments fail to address. Social entrepreneurship uses innovative business models to provide long term solutions to “wicked” problems, problems that defy simple solutions due to their complexity (Neck, Brush & Allen, 2009). Problems such as wide-spread poverty and disease have tended to grow worse world-wide, even in developed countries, following near depression-level world recession (Borker & Adam, 2012).

Humanitarian problems such as poverty, disease and hunger, have attracted the attention of the international community. The eradication of poverty is in fact the top goal among the 8 UN-backed Millennium Development Goals (UNDP, 2001). Above, we referred to the Schwab Social Entrepreneur of the Year Award. The award is sponsored by the Schwab Social Entrepreneurship Foundation. Other similar foundations include the Skoll Foundation for Social Entrepreneurship, the Acumen Fund for Social Entrepreneurship and the Ashoka Foundation for Social Entrepreneurship. Together with philanthropists, such as the Bill and Melinda Gates Foundation, the social entrepreneurship foundations promote social entrepreneurship internationally (Credit Suisse, 2010). Although their focus is on the eradication of poverty in the developing world, recent economic problems in developed countries have made them more active in these countries (Borker & Adam, 2012). These foundations provide different forms of support to social entrepreneurs in Africa, Asia and Latin America. One typical form of support for social entrepreneurs is electing potentially highly successful social entrepreneur to the Fellowship Program of the foundation. By far the largest of such programs is the Ashoka Fellowship. There are over 3000 Ashoka fellows worldwide. To be elected to be a fellow the social entrepreneur must already have a well-established social enterprise. The social enterprise must show signs of social impact scalability. It is this scalability that attracts the attention of the social entrepreneurship foundation. Thus, awardees of fellowships are successful social entrepreneurs. But what made them successful or how did they succeed?

In this study we compare successful social entrepreneurship in Africa and India. The basic premise of this study is that the roads to successful social entrepreneurship in Africa and India are significantly different, given the fairly obvious differences in the political, economic and socio-cultural environments in the two regions. Among the leading differences are political unity and stability and political disunity and instability in India and most African countries, respectively. Equally well-known are the economic differences. India's economy is an established emerging economy. Most African economies are still developing, and barely growing. Nine of the 10 poorest countries in the world are in Africa (<http://foxbusiness/markets/2012/09/14/10>, 2014). Society-wise, both regions have tendencies towards collectivism, but considerably more so in most African countries than in India (Kiggundu, 2002). J. Kerlin (2006), in her study "A comparative analysis of the global emergence of social enterprise", divided the social enterprise world into seven regions. She found Africa and India to belong to completely different regions. In the Southeast Asia region, to which India belongs, the emphasis of the social enterprises was "sustainable development". In the Africa region it was self-sustainability.

Literature Survey

Even though there is a growing interest about social entrepreneurship, there doesn't appear to exist a common definition of this concept. To complicate matters, the definitions of social entrepreneurship and approaches to social entrepreneurship have been found to vary according to geographical regions (Kerlin, 2010). J. Kerlin (2010), in her study "A Comparative Analysis of the Global Emergence of Social Enterprise" identified seven world regions in her comparison of social enterprise and social entrepreneurship approaches, namely, United States, Western Europe, Japan, East Central Europe, Argentina, Southern Africa, and Southeast Asia. The author's analysis was based on country case studies in the seven regions. Southern Africa was represented by Zambia and Zimbabwe, countries with economic, political and social characteristics roughly similar to those in the rest of sub-Saharan Africa.

Kerlin found Africa and India to belong to completely different regions. In the Southeast Asia region, to which India belonged, the emphasis of the social enterprises was "sustainable development". In the Africa region it was self-sustainability. Other differences between Africa and Southeast Asia (India) related to the importance of international aid to the regions, being much higher in Africa than it is in Southeast Asia. Further, while state capability was weak in both Africa and Southeast Asia (India), it was much weaker in Africa than in India.

Social entrepreneurship is a form of entrepreneurship (Meyskens et. al 2010). But it is entrepreneurship that focuses on social problems. Morse and Dudley (2002) stated that social entrepreneurs and social entrepreneurship combine a spirit of enterprise and a spirit of community in order to bring about community improvement. This concept of social entrepreneurship is complicated by the fact that nearly all legitimate enterprises, i.e., socially and legally sanctioned enterprises, are connected with a certain degree of community spirit, to the extent that any enterprise satisfies a community need (Austin, Stevenson & Wei-Skillern, 2006). Traditional enterprises provide employment opportunities and pay taxes. Other things being equal, traditional entrepreneurs and the market system can take care of all people's needs. Also, again other things being equal, the government can use tax revenues to finance and provide purely public goods, goods that are consumed collectively, such as police protection.

Unfortunately, there is no country where all things are equal for traditional entrepreneurs and government to produce and cater for all social needs. This is particularly true in poor developing countries. First, there aren't enough traditional entrepreneurs (Seelos, Mair, 2004). This is a problem many governments have tried to address. Where government programs aren't working fast enough to create new entrepreneurs, there is a need for social entrepreneurs. Essentially, social entrepreneurship addresses failures in market and public sectors (The Economist, 2014).

Social entrepreneurship is not the only way humanitarian needs such disease, illiteracy and hunger can be addressed. Almost all these afflictions of the poor can be directly met through donations of money and materials. Enlightened philanthropy, corporate social responsibility and civil society organizations have been making donations towards the alleviation of human miseries for years (Deeds, 2007; Barr, Fafchamps & Owens, 2005). All these arrangements are humanitarian needs-oriented. But they aren't necessarily socially entrepreneurial. However, in this paper we focus on entrepreneurial initiatives that create social value by bringing about lasting improvements in the well-being of those afflicted by poverty, disease, and hunger (Deeds, 2007).

A growing amount of literature now exists that attempts to explain patterns that characterize successful social entrepreneurship and social enterprises. One major study by S. Alvord, D. Brown and C. Letts (2004), all of Harvard University, examined seven highly successful social enterprises world-wide and identified four key patterns in these social enterprises. The seven cases included the Grameen Bank in Bangladesh, Self-Employed Women's Association (SEWA) in India, Se Servir de la Saison Seche en Savane et au Sahel (Six-S) in Burkina Faso, Africa, and the Green Belt Movement in Kenya, Africa. The four patterns related to core innovations, adaptive leadership capacity, operational organization, and scaling up strategy. All four patterns existed in all seven cases, but in different forms and degrees, depending upon environmental contexts. For example, while the core innovation for the Grameen Bank was to initiate a Micro Credit Package to assist poor women in Bangladesh, Six-S (Burkina Faso, West Africa) built Local Capacity by promoting networking of village organizations. Among the 7 cases only 2, in India and the U.S, employed movement building initiatives, mostly because of the high degree of tolerance to political challenges in these two countries. This was not a feasible option in Burkina Faso. J. Mair and I. Marti (2006) defined social entrepreneurship as "the interaction between social entrepreneur and context. Thus, the context can enable or constrain the appearance and success of social entrepreneurship.

B. Urban points out that while social problems are the central driver for social entrepreneurship, the key driving forces for social entrepreneurs arise out of political institutions, economic institutions and social-cultural institutions. It is deficits in these institutions that bring about social problems to which social entrepreneurs respond. Thus, undemocratic political institutions cause political upheavals to which social entrepreneurs often have to respond. A good case in point is the near civil war that followed the 2007 presidential elections in Kenya. Several social enterprises were launched to help people who had been dislocated by the inter-tribal fighting (<https://www.kickstart.org/>, 2012). It is also true that effective political, economic and social institutions can provide opportunities for social entrepreneurship. Thus, religious freedom encourages the establishment of faith-based social enterprises. The encouragement of social capital in a society is also good for social entrepreneurship, just as it is for commercial entrepreneurship. M. Sharir and M. Lerner (2006) in their study on gauging the success of social ventures found the entrepreneur's social network to be the leading factor, among the eight factors they discovered, behind the success of social enterprises. The presence of political unity and stable government in a country are also positive factors for the development and success of social entrepreneurship, again as it is for commercial entrepreneurship (Rangan, 2003).

Methods

To study the differences in social entrepreneurship in Africa and India we used Internet-based data available on the Ashoka Foundation for Social Entrepreneurship website. The Ashoka Foundation is the biggest international organization that supports social entrepreneurs. The organization celebrates social entrepreneurship success by electing the social entrepreneur to become a Fellow in the organization's social entrepreneurship network. To qualify for the election, the social entrepreneur must demonstrate scalability to broad-based social impact of his or her initiative. In order to be elected to be a Fellow, the social entrepreneur prepares a detailed statement. The statement is evaluated on a five-fold criteria: newness of idea, creativity, entrepreneurial quality, social impact of idea, and ethical fiber (Ashoka.org, 2014). Currently there are over 3000 Ashoka Fellows from all regions of the world. By analyzing the information on the Internet related to African and Indian Fellows, we expected to discover, among other things, differences in the nature of innovations used by social entrepreneurs, differences in the population segments targeted by social entrepreneurs, differences in financing social enterprises, differences in the strategies used to scale up the social impact of social enterprises, differences in the career backgrounds of social entrepreneurs and differences in the factors that inspired the social entrepreneurs to undertake the initiatives.

The Ashoka Foundation categorizes social fellows into five fields: Economic Development, Civic Engagement, Environment, Health, Human Rights, Learning and Education. We decided to focus on the field of Economic Development, because of its direct connection with poverty alleviation. One reason for our interest in poverty alleviation is that Poverty is the number 1 of the 8 UN-backed Millenium Development goals and Africa has the largest number of the world's poorest countries (UNDP, 2001). The study covers 105 African and 75 Indian Ashoka fellows. These were the entire populations under the Economic Development field on the Ashoka Social Entrepreneurship Foundation website

when it was checked late 2013. The differences between African and Indian fellows were significant or not significant according to the Chi-square test of population differences. Table 1 shows the African countries to which African fellows belonged.

TABLE 1: ASHOKA FELLOWS AFRICA POPULATION

Afr. Country	Number of Fellows	Afr. Country	Number of Fellows	Afr. Country	Number of Fellows
South Africa	22	Mali	5	Mozambique	1
Nigeria	19	Cameroon	2	Niger	1
Kenya	17	Ghana	2	Rwanda	1
Burkina Faso	14	Zambia	2	Benin	1
Zimbabwe	6	Senegal	2	Tanzania	1
Uganda	6	Gambia	1	Togo	1
				Total	105

Findings

Table 2 shows the five sectors/areas of social issues upon which the surveyed Ashoka fellows focused: Rural Development, Job Skills for Employment, Rights for Disadvantaged Communities, Appropriate Technology and Development of Entrepreneurs. The table indicates that the emphasis placed upon these issues differed between

TABLE 2: MAJOR SECTORS AIMED AT BY SOCIAL ENTREPRENEURS*

Ashoka Fellows from	Rural Development	Job Skills for Employment	Equal Rights	Appropriate Technology	Entrepreneurial Skills	Total
Africa	32%	13%	27%	20%	9%	n=104
India	21%	12%	47%	15%	5%	n=75
Total	27%	12%	35%	18%	7%	n=179

*Chi-squared = 7.962, significant at p=.05

African and Indian Ashoka fellows. These differences were significant according to Chi-square tests. As can be seen in table 2, the surveyed African Ashoka fellows placed a lot more emphasis on rural development than did their Indian counter-parts. Thirty two percent (32%) of the 104 surveyed African fellows had their focus on rural development. The equivalent number for Indian fellows was 21%. On the other hand, Indian Ashoka fellows placed more emphasis on rights for disadvantaged communities than their counterparts in Africa. As can be seen in table 2, 47% of the Indian fellows directed their organizations towards problems faced by disadvantaged communities. The comparable figure for African fellows was 27%. An example of an Indian social enterprise which was aimed at problems faced by disadvantaged communities is a “women and child development service center” near Calcutta, India. The center was started by a divorced Muslim woman to help divorced Muslim women access services traditionally denied to divorced Muslim women. Another example is Sammaan Foundation. The organization was started to help rickshaw operators own their rickshaws instead of renting them. As a result rickshaw operators can save enough money to access healthcare, which was previously unaffordable.

There were also some striking similarities between African and Indian fellows: the focus on job skills for employment, entrepreneurial skills and appropriate technology was low in both African and Indian fellows. Table 3 shows that the population segments targeted by African fellows differed significantly (Chi-square=10.684) from those targeted by Indian fellows. While 34% of the African fellows targeted rural peasant farmers, the corresponding number for Indian fellows was 23%. On the other hand, Indian fellows targeted the general community more heavily (43%) than African fellows did (28%). Other differences shown in table 3 relate to youth and

entrepreneurs. Although the percentages were low overall, African fellows targeted the youth twice as frequently as the Indian fellows. This pattern was reversed in relation to entrepreneurs.

TABLE 3: POPULATION SEGMENTS TARGETED BY SOCIAL ENTREPRENEURS*

Ashoka Fellows from	Rural Farmers	Youth	Women	Entrepreneurs	General Community	Total
Africa	34%	17%	16%	5%	28%	n=105
India	23%	8%	15%	12%	43%	n=75
Total	29%	13%	16%	8%	34%	n=180

*Chi-squared = 10.684, significant at p=.05

Table 4 shows the career backgrounds of the African and Indian fellows covered in the study. The career backgrounds of the two groups differed significantly (Chi-square=36.441). As can be seen from table 4, 52% of the

TABLE 4: SOCIAL ENTREPRENEUR'S CAREER BEFORE LAUNCHING SOCIAL ENTERPRISE*

Ashoka Fellows from	Educational Institution	Government	Self-Employment	Volunteer in Existing Charity	Social Activism	Total
Africa	16%	52%	13%	17%	2%	n=103
India	11%	19%	32%	18%	20%	n=74
Total	14%	38%	21%	18%	10%	n=177

*Chi-squared = 36.441, significant at p=.05

African fellows were government employees before embarking on their social enterprise initiatives. The corresponding number for Indian fellows was 19%. On the other hand, 32% of the Indian fellows were self-employed (business owners) before initiating their social enterprises. The corresponding number for African fellows was 13%. Other significant differences between African and Indian fellows related to backgrounds in education and social activism (long-term involvement in social causes). Sixteen percent of the African fellows held teaching or administrative jobs in institutions of learning at various levels. The corresponding number for Indian fellows was 11%. On the other hand, 20% of the Indian fellows had been social activists (community organizers) for long periods in their lives, often since high school, and rarely holding regular jobs. The corresponding number for African fellows was only 2%. An example of an Indian long-term social activist is the owner of an organization that helps poor women beggars at temples become independent entrepreneurs. She had been an activist to help beggars since high school. Her M.A. degree dissertation was on street beggars in temple complexes.

Table 5 shows the social entrepreneurs' sources of inspiration. African and Indian fellows in the study were inspired significantly differently (Chi-square=6.558, significant at p=0.05). A big majority (61%) of African fellows were inspired by personal experiences, invariably bitter, in order to embark on their social enterprises. The corresponding number for Indian fellows was 42%. An African fellow whose personal experience of rural farming poverty inspired him to act is the owner of "Market Information Points" in Western Kenya. The social entrepreneur

TABLE 5: SOCIAL ENTREPRENEUR'S MAJOR SOURCE OF INSPIRATION*

Ashoka Fellows from	Personal Experience	Concern for Others	Family	Total
Africa	61%	36%	3%	n=102
India	42%	51%	7%	n=74
Total	53%	43%	5%	n=176

*Chi-squared = 6.558, significant at p=.05

witnessed how small farmers, including his parents, were being exploited by middlemen. His organization provides farmers the information they use to negotiate with crop buyers. On the other hand, the most common (51%)

inspiration for Indian fellows was sympathy for others. The corresponding number for the African fellows was 36%. An example of a social enterprise that arose out of sympathy for others is a legal services organization that was set up to stop atrocities visited on poor organic farming groups in Maharashtra state in India.

Table 6 shows the sources of financing used by African and Indian fellows in their social enterprises. The table clearly shows that these sources hardly differed between African and Indian fellows. The financing patterns did.

TABLE 6: FINANCING THE SOCIAL ENTERPRISE

Starting Up*						
Ashoka Fellows from	Owner's Resources	Government Resources	Charity Support	Formal Borrowing	Multiple Sources	Total
Africa	84%	5%	6%	0%	5%	n=100
India	82%	3%	8%	4%	3%	n=73
Total	83%	4%	7%	2%	4%	n=173
Expanding**						
Africa	48%	9%	19%	5%	19%	n=100
India	44%	12%	18%	7%	19%	n=73
Total	46%	10%	18%	6%	19%	n=173

*Chi-squared = 5.491, not significant at p=.05; **Chi-square= 0.890, not significant at p=.05

differ between starting social enterprises and expanding them. For starting social enterprises, internal resources were immensely important. Eighty four percent of the African fellows and 82% of the Indian fellows depended on own resources to initiate their social enterprises. Charity funding was a distant second source for both African and Indian fellows. To expand their social enterprises the fellows in both groups still depended a great deal (around 45%) on their own resources, especially in terms of revenues generated from sales of products and services. However, this is about only half of the corresponding numbers for financing the start-up phase. Charity funding toward social enterprises nearly tripled (from 7% to 18%) as the social enterprises grew. It seemed that the more established the social enterprise was, the more attractive it became to charity funders, such as the Bill Gates Foundation (Aldashev & Verdier, 2009). Table 6 also shows that using multiple sources of funding rose as social enterprises became more established.

Discussion and Summary

As expected, Ashoka fellows in Africa and India are similar and different in significant ways. Most of these similarities and differences appear to be contextually-based. In this section we refer to 5 areas of similarities and differences between African and Indian fellows: Different areas of emphasis (rural development vs. equal rights), Different targeted populations (rural farmers vs. general community), Different career backgrounds (government employment vs. self-employment/business ownership), Different sources of inspiration (personal experience vs. concern for others) and Similar sources of financing (owner resources and charity funding).

As we stated in the introduction there are vast opportunities for social entrepreneurs in every country today. These opportunities are a function of multiple deficits in a given country. In this paper the deficits emphasized are economic and political. There are vast differences between Africa and India. Economically, India has an emerging economy, while most sub-Saharan Africa countries are poor and barely developing. Politically, India is the largest democracy in the world, while most African countries are still unstable and are governed by oppressive regimes. That the eradication of poverty is the top objective of 32% of the African fellows included in this study is not surprising. On the other hand, movements in support of disadvantaged communities, politically, socially and economically, were the most important focus (47%) of Indian fellows. This heightened focus on equal rights issues is possible in India because challenges, political or otherwise, are tolerated (Alvord, Brown & Letts, p.2004). The same patterns can also be seen in terms of the population segments targeted by the fellows included in the study. The African fellows targeted rural farmers to a much greater degree than their Indian counterparts.

The majority (52%) of the African fellows were government employees before embarking on their social enterprises. This is most likely a reflection of the dominance of government employment in the formal sector in most African countries (worldbank.org, 2014). On the other hand, as many as 32% of the Indian fellows had been self-employed/business owners before becoming social entrepreneurs. This is probably a reflection of the relatively more developed entrepreneurial class in India. Moreover, another 20% of the Indian fellows had been social activists for a long time, some of them since high school. This could be the result of the presence of several social entrepreneurship development programs in India. One such program, and one that is quickly catching up with the big social entrepreneurship foundations in the U.S. and Europe, is the “Tata Champions of Change” (Tatasechallenge.org,2014).

African and Indian fellows differed significantly in terms of the major circumstances or factors that inspired them into social entrepreneurship. A very large majority (61%) of the African fellows had first-hand personal experience with the social problems they address in their social ventures. We pointed out earlier that rural poverty (rural development) is the key social problem African fellows emphasized in their social ventures. They most likely grew up around poverty. On the other hand Indian fellows largely (51%) started social ventures in sympathy with others’ adverse circumstances, such as beggars around temples and the homeless on the streets. Fighting the “system” on behalf of others’ suffering, in a democratic society, is a very attractive option for social entrepreneurs (Alvord, Brown & Letts, 2004; Datta & Gailey, 2012).

Social entrepreneurs in Africa and India appear to face similar problems in financing their social ventures. Like commercial entrepreneurs most social entrepreneurs finance their start-up costs internally (Allen, 2013). There do not appear to be major reasons why African and Indian fellows should differ in terms of financing start-up social ventures. For both African and Indian fellows government and charity financial support increases as social ventures grow. The increases in these sources of funding are again almost identical for African and Indian fellows. Thus, external financing is more available for expanding social ventures than it is for starting them up. This is also the pattern for commercial ventures. While social entrepreneurship is different from commercial entrepreneurship, the two are similar in many respects (Meyskens, et al, 2010).

Study Limitations

The study was based on self-reporting by the Ashoka fellows studied. The Ashoka foundation requires every candidate for election to fellowship to write a semi-structured statement in which the candidate describes his or her accomplishments and future objectives. The statements have specific sections, which probably act as guidelines for preparing the statements. The volume/depth of information given in the statements varies from candidate to candidate. Consequently, comparing candidates was not always easy. A better approach to study Ashoka fellows would be to interview them after reading their candidacy statements.

Another limitation of the study related to the African fellows population. It was biased toward 4 countries, three of them some of the most prosperous in sub-Saharan Africa. Seventy two of the 105 African fellows come from South Africa, Nigeria, Kenya and Burkina Faso. None of these countries is one of the 9 African countries on the ambiguous list of the 10 poorest countries in the world. Unfortunately, this study limitation is also a statement about the limitations of international social entrepreneurship foundations. They are not yet reaching the countries where poverty is most rampant.

References

- [1] Aldashev, G. & Verdier, T. (2009). When NGOs go global: Competition international markets for development donations. *Journal of International Economics*, 79, 198-210
- [2] Alvord, H., Brown, D. & Letts, C. (2004). Social Entrepreneurship and the Social Transformation: an Exploratory Study. *Journal of Applied Behavioral Science*, 40,3, 260-282.
- [3] Ashoka.org. (2014). *Selection criteria*. Found at <http://www.ashoka.org/>. Accessed June 2, 2014.
- [4] Austin J., Stevenson H, and Wei-Skillern (2006). Social and Commercial Entrepreneurship: Same, Different Both? *Entrepreneurship: Theory and Practice*, January 2006, 30,1, 1-22
- [5] Datta, S. & Gailey, R. (2012). Empowering Women Through Social Entrepreneurship: Case Study of a Women's Cooperative in India. *Entrepreneurship Theory and Practice*, 36,3, 569-587.
- [6] Credit Suisse, (2010). *Strategic Philanthropy: Unlocking Entrepreneurial Potential*, White Paper 01, Credit Suisse AG, Zurich, Switzerland.
- [7] Dees, G. (2007). *Philanthropy and Enterprise: Harnessing the Power of Business and Entrepreneurship for Social Change*. Available at <http://www.brookings.edu/global/asp/2007dees.pdf>. Accessed Dec. 10, 2013.
- [8] Kerlin, J. (2010). A comparative analysis of global emergence of social enterprise. *Voluntas*, 21 (2010)
- [9] Mair, J. and Marti, I (2006). Social Entrepreneurship: A Source of Explanation, Prediction, and Delight. *Journal of World Business*, 41, 2006.
- [10] Meyskens, M., Robb-Post, C., Stamp, J., Carsrud, A., & Reynolds, P. (2010). Social Ventures From a Resource-Based Perspective: An Exploratory Study Assessing global Ashoka Fellows. *Entrepreneurship Theory and Practice*, 34,4, 661-704.
- [11] Neck, H., Brush, C. & Allen, E. (2009). The Landscape of Social Entrepreneurship. *Business Horizon*, 13, 2009.
- [12] Rangan, K. (2003). *ApproTEC Kenya*, Harvard Business School Publishing, Boston, MA.
- [13] Seelos, C. & J. Mair (2004). Social Entrepreneurship: The Contribution of Individual Entrepreneurs to Sustainable Development. *Working Paper*, IESE Business School, University of Navarra, Madrid, Spain.
- [14] The Economist, (2014). *Social Entrepreneurship in India: Cut From a Different Cloth*. Available at <Http://www.economist.com/news/business/>. Accessed June 7, 2014.
- [15] Urban, B. (2008). Social Entrepreneurship in South Africa. *International Journal of Entrepreneurial Behaviour and Research*, 14,5, 346-364.

Contact author for full list of references

Intangibles and Entrepreneurial Capital

*Paola Demartini**, paola.demartini@uniroma3.it
Department of Business Studies
University of Rome TRE

Francesca Maria Cesaroni, francesca.cesaroni@uniurb.it
Mara Del Baldo, mara.delbaldo@uniurb.it
Department of Economics, Society and Politics – DESP, Faculty of Economics
University of Urbino "Carlo Bo"
URBINO (PU)

Paola Paoloni, paola.paoloni@unicusano.it
Department of UNISU
Niccolò Cusano University

Intangibles and Entrepreneurial Capital

Abstract

The purpose of this paper is to increase and supplement the existing literature on Entrepreneurial Capital (EC) and to analyze how large Italian companies develop and enhance this intangible element. To this end, the research observes the different definitions of entrepreneurial capital that literature offers and propose a new construct focusing on the positive relationship between EC and Intellectual Capital (IC) This is done through attracting the right potential of human capital and viewing EC as a fundamental component of intellectual capital. Consequently, the works aims to provide an overview on the current level of EC in Italian organisations and how does it affect value creation.

This research provides researchers and managers with unique insights into the evolutionary nature of the relationships between distinct entrepreneurial variables and explains how to enhance corporate entrepreneurial and intellectual capital, thus highlighting companies' abilities to manage their EC in order to create economic value, growth, innovation.

Keywords - Entrepreneurial Capital, Intellectual Capital, Risk-taking, Proactiveness and autonomy, Aggressiveness.

1. Introduction

The purpose of this paper is to increase and supplement existing literature on Entrepreneurial Capital (EC) and to analyze how large Italian companies develop and enhance this intangible element. To this end, the research observes the different definitions of entrepreneurial capital that literature offers and defines the variables suggested by previous literature proposing a new definition for our research project. Entrepreneurial capital is defined as a stock of competences and personnel's attributes related to proactive, risky and aggressive decision-making and behavior. The empirical research aims to provide an overview on the Italian state of art of the current level of EC in Italian organizations and to understand how does it affect value creation.

Therefore, the purpose of this paper is to show preliminary results from the Italian research unit of an international project on intellectual capital and value creation led by Lappeenranta University of Technology – LUT (Finland).

The two key academic discussions addressing knowledge in organisations are Intellectual Capital (IC) and Knowledge Management (KM) streams of research. In particular, IC literature focuses on intangible resources that contribute to value creation (e.g. Edvinsson and Malone, 1997; Sullivan, 1998) that is “knowledge-based resources that contribute to the sustained competitive advantage of the firm” and “knowledge that can be converted into profits”. However, very few earlier studies systematically combine IC and KM practices to examine key knowledge-related factors impacting value creation in firms.

Yet the main question of the overall project is: “How do IC assets and their management practices interact to create value?” and the common goal of the international research team is to examine the current state of IC stocks and KM practices, and how these interact in firms' value creation.

Academic Partners involved in the project are the following:

- Lappeenranta University of Technology, Finland (The Core Team)
- University of Rome 3, Italy
- Hong Kong Polytechnic University, China
- Deusto Business School, University of Deusto, Spain
- St. Petersburg University Graduate School of Management, Russia
- Educons University, Serbia
- Universidade Lusíada, Portugal
- Academy of Economic Studies, Bucharest, Romania

In most studies IC has been seen to consist of three elements: human capital, structural capital and relational capital (e.g. Bontis, 2001; Guthrie, 2001). The IC literature helps in identifying intangible resources stock within the firms and in assessing it. However are the above-mentioned three elements sufficient?

In our research design we suggest that also three other elements could be included in IC visualizing and mapping: “renewal capital”, in terms of innovative solutions, products and services available for the firms, “trust capital” (i.e. trust embedded in firm’s internal and external relationship) and “entrepreneurial capital” (i.e. competence and commitment related to entrepreneurial activities in the organisation) (Kianto, 2007; Kianto, 2008; Kianto et. al., 2013).

Within the overall project, the Italian research unit will focus on EC. In particular it will be analysed how medium- and large-sized Italian companies develop and enhance this intangible element. Consequently the research questions of our investigation are the following: What is the current level of EC in Italian organisations and how does it affect value creation?

To this end, our investigation aims to highlight the importance of EC as a stand-alone component of IC. As a secondary step we’ll analyze variables suggested by previous literature trying to understand this phenomenon and we’ll propose a definition that fits our research design. The emerging definition is that EC concerns competences and attributes the possessed firms’ personnel and related to proactive, risky, innovativeness and aggressive decision-making and behaviour.

Our research agenda will provide academics and managers with unique insights into the state of art of corporate EC in Italian companies. Furthermore this research will set the agenda for improving EC practices of Italian companies and will allow future comparison with firms from other countries currently involved in the same project, identifying different pathways to success.

2. Literature Review

2.1. Previous studies in the field of Entrepreneurship

Sharma and Chrisman (1999) maintain that the concept of entrepreneurship includes not only processes of creation of new organizations (Gartner, 1988) but it encompasses a broader set of activities including carrying out new combinations (e.g. product or process innovation) within existing organizations, organizational innovation and organizational transformation through strategic renewal. They provide a comprehensive definition of entrepreneurship encompassing “acts of organizational creation, renewal or innovation that occur within or outside an existing organization”. In this definition innovation is an entrepreneurial activity since “it involves new combinations that may dramatically alter the bases of competition in an industry, or lead to the creation of a new industry”, even if innovation might not immediately generate a new venture creation.

According to this definition, “Entrepreneurs are individuals or groups of individuals, acting independently or as part of a corporate system, who create new organizations, or instigate renewal or innovation within an existing organization” (Sharma and Crishman, 1999).

Entrepreneurship can be studied at an individual and collective level (independent and corporate entrepreneurship). Independent entrepreneurship is the process of creation of a new organization by individual(s) not associated with an existing organization. Corporate entrepreneurship concerns processes of organizational creation, renewal or innovation instigated by an existing organizational entity (Sharma and Crishman, 1999).

Scholars who have studied entrepreneurship at the collective level, wondered what are attitudes and behaviors that express the presence of entrepreneurship in an organization. The concept of entrepreneurial orientation (Miller, 1983; Covin and Slevin, 1989; Lumpkin and Dess, 1996) was introduced referring to a firm’s strategic orientation (Wiklund and Shepherd, 2003), capturing specific entrepreneurial aspects of decision-making styles, methods, and practices that inform a firm’s entrepreneurial activities (Lumpkin and Dess, 1996). This construct has been described as the product of three to five dimensions, including autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness (Covin and Slevin, 1989; Miller, 1983; Lumpkin and Dess, 1996). Consistently with Covin and Slevin (1991), in most studies only three dimensions have been considered, commonly propensity of firms to be innovative, proactive to the market place opportunities and be willing to take risks.

Entrepreneurship scholars have attempted to explain a firm's performance by investigating its entrepreneurial orientation. Positive associations between business performance and entrepreneurial orientation have been found by Wiklund and Shepherd (2003), Zahra (1991), Zahra and Covin (1995) (see Rauch et al. 2009 for a summary)

Some authors claim that in order to understand the level of entrepreneurial orientation in an organization it's important to consider not only the characteristics of the firm as a whole (Lau et al., 2012) but also those of employees and managers working within a firm. Organizational and individual levels are in fact connected, as organizations' entrepreneurial orientation is the result of entrepreneurial behaviors and attitudes of people involved in organizations. These behaviors are influenced by organizational factors such as strategies, structure, reward systems, organizational boundaries, management style (Hornsby et al., 2002; Kuratko et al., 2005).

It follows that in order to analyze the level of entrepreneurial orientation in an organization, it is important not only to verify the existence of such factors within the firms, but also to verify the existence of entrepreneurship' dimensions in individuals working within the firm (employees and managers).

Accordingly EC can be defined as the entrepreneurial behavior exerted in an organization, i.e. the courage, initiative taking and pro-activeness demonstrated by organizational actors. Consistently with resource-based perspective (Barney, 1991) of entrepreneurship the success of a business is deeply affected not only by its tangible and financial capital, but also by the quality of its entrepreneurial capabilities. According to Erikson (2002), EC is a multiplicative function of entrepreneurial competence and commitment. The former is defined as the "capacity to identify and pursue opportunities, and to obtain and coordinate resources", and the latter "reflects the capacity to see ventures through to fruition". EC consists of a set of human capabilities that represents a very important asset and a source of competitive advantage for a business. In fact it facilitates the identification of new opportunities, enhances the ability to gather, organize and manage resources and to use them in profitable activities.

2.2 Intellectual capital and Entrepreneurial capital: links and relationships

Intellectual capital has been defined as "the total stock of capital or knowledge-based equity that the company possesses" (Dzinkowski, 2000). IC is either the end product of a knowledge transformation process or the stock of organizational knowledge itself. IC incorporates three main components that together form value: human capital, organizational (structural) capital, and customer (or relational) capital (Bontis, 2001; Guthrie, 2001).

Human capital refers to and includes know-how, education, work-related competencies, and psychometric assessments. McGregor et al. (2004) define human capital as the size and quality of broader labor markets, but also as the sum of individual competencies in organizations. Teece (2000) recognizes that knowledge assets or products result from the experience and expertise of individuals. However, the "physical, social, and resource allocation structure" of organizations are important if such experience and expertise is to be translated into competencies that help generate knowledge products (Teece, 2000; McGregor et al., 2004).

The term structural capital reflects these allocation structures and includes assets such as corporate culture, management processes, databases, organizational structure, patents, trademarks, and financial relations. Engstrom et al. (2003, p. 288) suggest that structural capital "includes all non-human storehouses of knowledge in organizations."

Finally, relational, or customer, capital refers to, in part, organizations' customers, brands, customer loyalty, and distribution channels. Customer capital also refers to consumers as repositories of information and knowledge that is valuable to organizations (Bontis, 1998).

For the purpose of our research we deem that EC (roughly intuitively defined as the competence and commitment related to entrepreneurial activities in the organization) should be taken into consideration as a stand-alone element of IC in the light of the following rationale:

- in an unsteady and unpredictable business environment, like today, EC might be found as one of the most influent intangible to enhance corporate value;
- the construct of EC is characterized by several attributes which, in the traditional definition of IC, refer both to human capital (i.e. entrepreneurial competence and behavior) and structural capital (i.e. entrepreneurial corporate culture and processes).

Consequently, EC - as well as renewal and trust capital - should be considered a specific and important dimension of IC (Kianto et al., 2013) even if most authors consider human, structural and relational capital as main IC components.

Particularly, Kianto et al (2013) discuss the nature of knowledge that can be conceived both as a stock or a resource and as a process or a practice. The Authors suggest distinguishing between static and dynamic perspectives on knowledge for understanding organizational value creation and performance, that is the IC stocks and the KM practices (see Table 1). Renewal capital refers to the ability of an organization to continuously develop itself through learning and innovation (see e.g. Kianto et al., 2010) and is intended in terms of innovative solutions, products and services available for the firm (Kianto, 2008). Trust capital concerns the trust embedded in a company's internal and external relationships (Mayer et al., 1995), while EC deals with the competence and commitment related to entrepreneurial activities in an organization (Erikson, 2002). This broader definition of IC is based upon a "wide understanding of knowledge, as not only the explicit outcomes of knowledge-intensive work such as patents, formulae and actualized products, but also as the tacit potential of organizational actors to e.g. flexibly react to unexpected situations and rapidly changing customer demands" (Kianto et al., 2013, p. 1475).

TABLE 1- INTELLECTUAL CAPITAL STOCKS AND KNOWLEDGE MANAGEMENT PRACTICES

IC stocks' components	KM practices and mechanisms
Human capital	Strategic KM practices
Structural capital	Organizational structural arrangements
Relational capital	KM-friendly organizational culture
Renewal capital	ICT practices
Entrepreneurial capital	Learning mechanisms
Trust capital	KM-related HRM practices Knowledge protection practices

Source: Kianto et al., 2013, p. 1476.

Entrepreneurial capital (Erikson, 2002) can be defined as entrepreneurial behavior exerted in an organization, i.e. the courage, initiative-taking and pro-activeness demonstrated by organizational actors. Moreover, EC is defined as a stock of competences and personnel's attributes related to proactive, risk oriented, innovativeness and aggressive decision-making and behavior.

The concept of EC has been developed only recently (Lam et al., 2008). There is not a specific and autonomous line of studies on this topic, as the theoretical strands that have touched on this theme are accrued in different contexts, following prospects that do not always converge. On the one hand, as mentioned above, the concept of EC has been introduced in the context of studies on IC and KM. In this sense, the EC, together with renewal capital and trust capital, is conceived as a "new" component of the IC in addition to the traditional ones of human, structural and relational, capital (Kianto et al, 2013).

Moreover, as we'll see in the previous section, in the vast body of entrepreneurship studies, several links can be found with reference to the attributes that underline the construct of Entrepreneurial orientation (EO) and the Corporate Entrepreneurship (CE) (Lumpkin and Dess, 1996, 2001). In this context EC is viewed as a stock of competences and personnel's attributes related to proactive, risky and aggressive decision-making and behavior (Khandwalla, 1976/1977; Voss, Voss and Moorman, 2005), in the sense that the organization's personnel excel at identifying new business opportunities, initiate actions autonomously, as well as the level of freedom and independence in the way personnel work, while aggressiveness is conceived in terms of the organization's personnel courage to make bold decisions (Hughes and Morgan, 2007).

On the other hand, the concept of EC has been developed in the context of an emerging body of research (Erikson, 2002; Firkin, 2003, Shaw et al., 2009; Stringfellow and Shaw, 2009; Harvey et al., 2011) which highlights the crucial role that non financial resources play in facilitating firms' success (Anderson and Miller, 2003; Pret and Shaw, 2010) and underlines that, to date, little attention has been paid to the convertible, multifaceted nature of EC (Shaw et al., 2008). These studies identify the dimensions of EC, which, in addition to economic capital and social capital include the cultural capital and symbolic capital. Specifically, with reference to small and medium-sized enterprises (SMEs) Pret and Shaw, 2010) and Lam et al. (2008) demonstrate how non-financial components of EC are

relevant with respect to the SMEs' competitiveness and development and how their limited financial resources are offset by the other EC components.

EC has been defined in various ways. It has been seen as a subset of social capital (Audretsch and Monsen, 2008), as a derivative of Bourdieu's concept (Firkin, 2003) and as a multiplicative function of entrepreneurial competence and commitment (Erikson, 2002). Principally, the concept of EC builds on the resource-based view of entrepreneurship (Alvarez and Busenitz, 2001; Barney et al. 2011; Conner, 1991) and focuses on the importance of entrepreneurs' access to financial and non-financial resources (Erikson, 2002), such as human, social and symbolic capital (Davidsson and Honig, 2003; Roomi, 2013; Zott and Huy, 2007).

In his study Erikson (2002) traced a practical framework of EC presenting a model of EC defined as a multiplicative function of entrepreneurial competence and entrepreneurial commitment, which are the foundation for enterprise generation and performance. Extending the Ulrich's (1998) proposition of IC he underlines how the relationship between entrepreneurial competence and commitment is a multiplicative one rather than additive as both components. Inherent in this view on competence is the capacity to identify opportunities (opportunity recognition) and to increase perceptions of opportunities (Krueger and Dickson, 1994).

A similar construct is used when social capital is conceived as the sum all actual and potential resources that can be accessed through a durable network of relationships (Bourdieu, 1986)

Building on the afore mentioned resource-based (RB) perspective of entrepreneurship (Brush et al., 2002), the notion of EC suggests that in addition to financial capital, the entrepreneurial process is affected by the other types of capital possessed by entrepreneurs or available to them through networks and relationships (Firkin, 2003). Entrepreneurship scholars have variously identified non-financial capital as including the physical, organizational, technological, human, cultural, social and symbolic capital of business owners and their firms. Specifically, Gorton (2000) and Firkin (2003) provide detailed accounts of the value of Bourdieu's (1986) perspective on capital for the field of business ownership: even when entrepreneurs possess identical amounts and types of economic, human and social capital, differing values may be placed on the EC they possess Firkin (2003). Specifically, et al. (2008) operationalized the impact of EC on SMEs' reputation and performance.

Extending this perspective, Firkin (2003) suggests that the concept of EC is based on the total capital that an individual possesses and the value placed on this composite form of capital. Due to the difficulty to isolate and separate individual forms of capital these are characterized by an overlapping nature and convertibility. He refers to this interplay (how each form of capital can be converted from and into other forms of capital) as the convertibility of capital: if individuals possess high levels of human capital in terms of their education and experience, it might be expected that this would convert into their possession of high levels of social capital in terms of their networks and contacts.

Pret & Shaw (2010), exploring the importance of EC for small firms, inquiry how and why entrepreneurs utilize non-financial resources to achieve success. Their findings highlight the importance of social, cultural/human and symbolic capital to small firm owners who are often restrained by limited financial resources (Burns et al., 2012) and illustrate the fundamental role of these non-financial resources in supplementing craft entrepreneurs' economic and financial capital.

In the light of this brief literature review, we can deduce that EC represents a critical intangible asset that can contribute to firm's value creation, both for SMEs and medium and large enterprises, especially in periods of turbulence and economic crisis. Entrepreneurial and renewal capital represent key resources of organizations enabling high innovation performance and organizational growth and increasing the effectiveness in responding to future challenges and radical changes in the market. The first results of the survey (presented in the second part of the paper) show that EC and renewal capital are measures that have discriminant validity and internal reliability. Thus, they are relevant for measuring the growth and innovativeness potential of established medium and large firms.

3. Research Design: from Entrepreneurial Orientation to Entrepreneurial Capital

For the purpose of our research, drawing from the above-mentioned literature, EC is comprehensively defined as a stock of competences and personnel's attributes related to proactive, risky, innovative, independent and aggressive decision-making and behavior (Lumpkin and Dess, 1996).

Proactiveness means taking initiative by anticipating and pursuit new opportunities and participating in emerging.

Risk-taking reflects an acceptance of uncertainty and risk inherent in original activity. It's typically characterized by resource commitment to uncertain outcomes and activities.

Aggressive decision-making is the intensity with which a firm chooses to compete and efforts to surpass competitors reflecting a bias toward out doing rivals. It also includes the authority and independence given to an individual or team within the firm to develop business concepts and vision and carry them through to completion.

Innovativeness reflects firm's propensity to engage in a new idea/ processes and also new creative solution and opportunities (Wiklund, 1999).

Independence is the ability and will of people working within an organization to be self-directed in the pursuit of opportunities and to exercise their creativity without being limited by organization's constraints.

To further address how these dimensions are related to performance and value creations, we here overview several hypotheses. In fact to draw our research design it is necessary to examine how each individual variable of EC might influence business performance and value creation. We will explore above-mentioned dimensions and will investigate why each of them might have a positive influence on business performance and value creation.

HP 1: Proactiveness is positively linked with performance and value creation

Proactiveness represents a forward-looking perspective where firms actively seek to anticipate opportunities to develop and introduce new or improved products, instigate changes to current strategies and tactics, and detect future trends in the market (Lumpkin and Dess, 1996; Slater and Narver, 1995). Proactive firms, through proprietary learning and experience effects gained over time, tend to be more attuned to changes and trends in the marketplace, which yields opportunities to the firm to meet expressed and latent needs ahead of competitors (Hamel and Prahalad, 1991).

Firms' proactiveness is characterized by intentional change. That is, by forces acting on information to make change not merely anticipating it (Bateman and Crant, 1993). This alleviates the risk of complacency by ensuring firms are better placed to serve markets in the short term and shape them in the longer term. The emphasis on anticipating and acting on future needs orients the firm to seize initiative and act opportunistically in the marketplace thereby shaping demand (Miller and Friesen, 1978).

HP 2: Risk-taking is positively related with performance and value creation

Risk-taking represents a willingness to commit resources to implement projects, activities, and solutions that contain inherently a high level of uncertainty regarding the likely outcomes (Lumpkin and Dess, 1996). When deciding to take risks, firms must tolerate one of two possible scenarios - the first being the risk of failing and second the risk of missing out on an opportunity (Dickson and Giglierano, 1986). The former is caused by fear whereas the latter is caused by inaction. A tolerance of risk-taking orients the firm toward action and induces it to embrace uncertainty. Timely risk-taking has been associated with strategic decision speed and both have subsequently been linked to improved business performance (Eisenhardt, 1989). Risk-oriented firms combine opportunity-seeking behavior with constructive risk-taking to generate a bias for exploration and exploitation (Baird and Thomas, 1990; Lumpkin and Dess, 1996). Risk-taking managements usually seize opportunities and make commitments of resources before fully understanding what action needs to be taken (Covin and Slevin, 1991). Such an approach seeks to take advantage of evolving situations by capitalizing on the fact that markets rarely stabilize for any length of time. Risk aversion renders firms passive to developing new market opportunities which is likely to deteriorate performance in an age of rapid change (Miller and Friesen, 1982).

HP 3: Aggressive decision-making is positively related with performance and value creation

Firms that are highly aggressive see competitors as enemies that must be conquered.

Aggressiveness can be implemented through the mobilization of resources to launch direct attacks on competitors with the aim of overwhelming their market efforts, steadily erode their competitive strengths, or establish advantage through continuous offensive tactics (Davidson, 1987).

Aggressiveness can improve performance because the emphasis on out-doing and out-maneuvering competitors strengthens the firm's competitiveness at the expense of rivals (Lumpkin and Dess, 1996). Examples of the manifestation of such an aggressive competitive strategy include aggressive price competition, market entry with a new or superior offering, fast-following a rival into a market, continuously exploiting information, and using unconventional surprise tactics.

Such an emphasis on acquiring market share and customers by aggressively targeting rivals' weaknesses should improve performance because it undermines competitors' ability to compete and restrict the ability of competitors to anticipate and respond to what the aggressive firm will do next. Since the aggressive firm does not sit still and constantly implements incremental and adaptive change to undermine competitors, it is hypothesized Autonomy conveys the freedom to employees to encourage them to be self-directed, to exercise creativity, pursue opportunities, and champion new ideas which are essential for effective entrepreneurial activity to occur Lumpkin and Dess, 1996).

Autonomy is, therefore, an important driver of flexibility, which is an essential attribute if a firm is to be able to respond promptly to environmental change and market signals by quickly reconfiguring its actions and activities (e.g. Grewal and Tansuhaj, 2001). Flexibility is created when people within the firm are given freedom to apply their human capital in ways that help the firm to change adaptively and be responsive to the needs of its markets and actions of its rivals. A lack of autonomy would likely result in passivity when change is needed to initiate effective response to opportunities and threats to performance. The presence of autonomy, in contrast, should encourage a greater flexibility in the firm to facilitate active and reactive response to change. Although some framework of coordination is likely to be needed, on balance we expect that autonomy will be beneficial to improving business performance.

HP 4: Innovativeness is positively related with performance and value creation

Innovativeness represents a bias toward embracing and supporting creativity, experimentation, technological leadership, and R&D in the development of products, services, and processes to generate novel solutions to customer needs and problems (Hughes and Morgan, 2007). It is said to be present when firms pursue active implementation of new ideas, products or processes not merely their generation (e.g., Hurley and Hult, 1998).

Calantone, Çavuşgil, and Zhao (2002) establish that firm innovativeness has a positive impact on performance and contributes to competitive advantage by facilitating creative thinking within a firm's learning activities. Innovativeness also improves the application of market intelligence acquired through market orientation activities, which can benefit performance (Han, Kim, and Srivastava, 1998; Hurley and Hult, 1998). Also, a study by Hult, Hurley, and Knight (2004) uncovered that innovativeness benefits business performance regardless of market turbulence. Innovativeness changes the way firms apply market information (e.g., Slater and Narver, 1995) and informs the generation of intelligent solutions.

HP 5: Independence is positively related with performance and value creation

As stated by Lumpkin and Dess (1996) "autonomy is the freedom granted to individuals and teams who can exercise their creativity and champion promising ideas that is needed for entrepreneurship to occur". Independence is a fundamental dimension of entrepreneurial orientation Creation of new businesses is in fact the result of independent people who have chosen to act autonomously and not be bound by the constraints imposed by existing organizations. Autonomy therefore is an essential resource for the creation of new businesses. In existing organizations where autonomy is a key dimension, employees are encouraged to freely express their ideas, to promote innovative projects and proposals for renewal, so that they are actively involved in entrepreneurial activity. Autonomy is therefore an important driver of firms' flexibility, as it allows them to be able to respond promptly to environmental change and market signals by quickly reconfiguring their actions and activities (Hughes and Morgan, 2007).

3.2. Research Methodology

While the Italian research unit focuses on the EC, the overall research design aiming to understand links between IC managing and value creation. In the next paragraphs, the following steps will be addressed:

- 1) Operationalizing variables;
- 2) Survey Data Collection;
- 3) Target Respondent;
- 4) Public Data Collection.

1) Operationalizing variables

Operationalizing variables in social science involves defining a concept so that it can be measured. All variables defining Entrepreneurial Capital were addressed and discussed in meetings of the international working group.

As far as Entrepreneurial Capital is concern, the following are the operationalized variables and the related statement included into the questionnaire (Tables 2-3):

TABLE 2 –EC VARIABLES

ENTCAP	<p>Concept: Entrepreneurial capital</p> <p><i>Variables:</i></p> <p><i>Risk-taking</i></p> <p><i>Proactiveness</i></p> <p><i>Autonomy</i></p> <p><i>Aggressive decision-making</i></p> <p><i>Innovativeness</i></p>
--------	---

TABLE 3 – STATEMENTS RELATED TO EC

To what extent do the following statements on the entrepreneurial orientation apply to your company?	
(1 = completely disagree, 5 = completely agree)	
	1 2 3 4 5
ENTCAP1	Risk-taking is regarded as a positive personal quality in our company.
ENTCAP2	Our employees take deliberate risks related to new ideas.
ENTCAP3	Our employees are excellent at identifying new business opportunities.
ENTCAP4	Our employees show initiative.
ENTCAP5	The operations of our company are defined by independence and freedom in performing duties.
ENTCAP6	Our employees have the courage to make bold and difficult decisions.
ENTCAP7	The operations of our company can be described as creative and inventive.

It must be noted that in the social sciences, much of what we study is measured on what would be classified as an ordinal level. In our questionnaire we then assign a value of “1” if interviewed Completely Disagree with the statement, up to a “5” if they Completely agree with the statement. The finalized research instrument (survey questionnaire) was distributed in the beginning of September 2013 by the LUT research team.

The questionnaire has been written in English. Partners should take care in translating the questionnaire to their own language, also with the help of a professional language expert in the first step. The core message of each item should remain the same to ensure the same meaning across countries.

Additionally, the questionnaire was finally reviewed in its linguistic style by the Italian research team to ensure that Italian respondents could easily understand the statements. The survey was conducted in exactly the same format in all cases. This means using all of the items in the survey, and in the same order, and with the same scales. The data were collected using survey questionnaire by the end of the year 2013.

Publicly available data were collected right after the primary data collection has ended.

2) Survey data collection and targeted population of firms:

Target population was made up of Italian limited liabilities companies with 100 or more employees. From AIDA database 2000 companies were randomly extracted in order to respect sector, size and geographical stratification existing in the population. Up to April 2014 105 questionnaires were received and the response rate is therefore 5,25%. After deleting unobtainable or unavailable firms and questionnaires with missing data, the final Italian dataset included 100 feasible responses (details on the Italian companies sample can be required to the authors).

3) Targeted respondent/informant:

In each firm a key informant was involved in the survey, mostly CEO and HR/KM Director. Data was collected using an internet-administered survey questionnaire. In order to make respondents comfortable and willing to fill the questionnaire, information about survey's origins and aims was given. Furthermore confidentiality was emphasized.

The data have been collected from October 2013 and March 2014.

4) Public data collection

Additional economic and financial ratios have been obtained from AIDA database, which contains economic and financial information for Italian firms. Descriptive analysis techniques will then be applied and differences according to industry and size will be explored. The following Corporate Performance measures were collected:

- Return on Assets (ROA): last three years;
- Return on Equity (ROE): last three years;
- Growth in Revenue: last three years;
- Growth in Turnover/Sales: last three years

Control variables are the following:

- Sales/Turnover (2010, 2011, 2012);
- The number of personnel (2010, 2011, 2012);
- Year of Foundation/Establishment ;
- Market to book value or Price to book value (P/B), if available;
- Industry information (NACE coding highly preferable, or other official industry coding).

4. First Results

In the following, first findings of our survey are presented in table 4.

TABLE 4 –FIRST FINDINGS
Frequency of answers (%), Tot. = 100 questionnaires

VAR	KEY WORD	1	2	3	4	5
ENTCAP1	Risk taking	2	20	19	40	19
ENTCAP2	New ideas	7	26	30	30	7
ENTCAP3	New business	8	30	32	25	5
ENTCAP4	Initiative	4	20	31	35	10
ENTCAP5	Independence	5	19	32	35	9
ENTCAP6	Difficult decision	10	22	38	24	6
ENTCAP7	Innovativeness	3	22	31	27	17

As a general overview,, more than sixty % of all respondents (value = > 3) agree that in their companies there is a satisfactory level of Entrepreneurial Capital as defined by the above-mentioned variables.

In particular it seems that **Risk-taking** is regarded as a positive personal quality in the 78% of the companies (value = > 3). While, on the other side the 38% of respondents deem that in their company employees could be more proactive at identifying **new business opportunities** (value <= 2).

5. Conclusions and a Research Agenda

As stated in Introduction this is a first conceptual paper on “IC and Value creation” aiming to:

- enlighten the overall framework of the international project and the specific role of the Italian unit;
- explain why EC should be considered – for the purpose of our investigation – as a stand-alone element of IC;
- illustrate the research methodology of the Italian research unit;
- define and operationalize the concept of Entrepreneurial Capital.

In the first step the Italian research team will address a deep analysis of data gathered in order to describe what is the current level of EC in Italian medium-sized and large companies. Clusters of firms by dimension, activity sector and geographical location will be investigated.

Future research agenda considers comparison with results emerging in other Countries in order to address environmental variables effects on EC, IC and corporate performance. Finally, next year causality relation between EC and value performance will be tested.

References

- [1] Alvarez, S.A. & Busenitz, L.W. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27 (6), 755-775.
- [2] Anderson, A.R. & Miller, C.J. (2003). 'Class matters': human and social capital in the entrepreneurial process. *The Journal of Socio-Economics*, 32(1), 17-36.
- [3] Audretsch, D.B. & Monsen, E. (2008). Entrepreneurship capital: a regional, organizational, team and individual phenomenon. In: Barrett, R. & Mayson, S. (Eds.) *International Handbook of HRM and Entrepreneurship*. Cheltenham: Edward Elgar Publishing, 47-70.
- [4] Baird, I.S. & Thomas, W. (1990). What is risk anyway? Using and measuring risk in strategic management. In Bettis, R.A. and Thomas, H. (Eds.), *Risk, strategy, and management*. Greenwich, CT: JAI Press, 21-52.
- [5] Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- [6] Barney, J.B., Ketchen, D.J. & Wright, M. (2011). The ruture of resource-based theory: revitalization or decline? *Journal of Management*, 37(5),1299-1315.
- [7] Bateman, T.S. & Crant, J.M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, 14(2), 103-118.
- [8] Bontis, N. (1998). Intellectual capital: an exploratory study that develops measures and models. *Management Decision*, 36(2), 63-75.
- [9] Bourdieu, P. (1986). The forms of capital. In: Richardson, J.G. (Ed.) *The handbook of theory and research for the sociology of education*. New York: Greenwood Press, 241-258.
- [10] Burns, J. Gibbon, C., Rosemberg, C. & Yair, K. (2012). *Craft in an age of change* (report). London: Crafts Council, Creative Scotland, Arts Council of Wales and Craft Northern Ireland.
- [11] Brush, C., Carter, N., Greene, P., Hart, M. & Gatewood, E. (2002). The role of social capital and gender in linking financial suppliers and entrepreneurial firms: a framework for future research. *Venture Capital*, 4(4), 305-323.
- [12] Calantone, R.J., Çavuşgil, S.T. & Zhao, Y. (2002). Learning orientation, firm innovation capability, and business performance. *Industrial Marketing Management*, 31, 515-524.
- [13] Conner, K.R. (1991). A historical comparison of rResource-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm? *Journal of Management*, 17(1), 121-154.
- [14] Covin, J.G., & Slevin, D.P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75-87.
- [15] Covin J.G. & Slevin, D.P. (1991). A conceptual model of entrepreneurship as firm behaviour, *Entrepreneurship. Theory and Practice*, 16(1), 7-25.
- [16] Davidson, H. (1987). *Offensive marketing: How to make your competitors followers*. London: Penguin.
- [17] Davidsson, P. & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3). 301-331.
- [18] Dickson, P.R. & Giglierano, J.J. (1986). Missing the boat and sinking the boat: A conceptual model of entrepreneurial risk. *Journal of Marketing*, July, 50, 58-70.
- [19] Dzikowski, R. (2000). The measurement and management of intellectual capital: an introduction. *Management Accounting*, 78(2), 32-6.
- [20] Edvinsson, L. & Malone, M. (1997). *Intellectual capital: Realising your company's true value by finding its hidden brainpower*. Harper Collins: New York.
- [21] Eisenhardt, K.M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 27, 299-343.
- [22] Engstrom, T.E.J., Westnes, P. & Westnes, S. (2003). Evaluating intellectual capital in the hotel industry. *Journal of Intellectual Capital*, 4(3), 287-303.
- [23] Erikson, T. (2002). Entrepreneurial capital: the emerging venture's most important asset and competitive advantage. *Journal of Business Venturing*, 17, 275-290.

- [24] Firkin, P. (2003). Entrepreneurial capital. In: De Bruin, A. & Dupuis, A. (Eds.) *Entrepreneurship: new perspectives in a global age*. Aldershot: Ashgate Publishing, 57-75.
- [25] Gartner, W.B. (1988). 'Who is an entrepreneur?' is the wrong question. *American Journal of Small Business*, 12(4), 11-32.
- [26] Gorton, M. (2000). Overcoming the structure-agency divide in small business research, *International Journal of Entrepreneurial Behaviour and Research*, 6(5), 276-292.
- [27] Grewal, R. & Tansuhaj, P. (2001). Building organizational capabilities for managing economic crisis: The role of market orientation and strategic flexibility. *Journal of Marketing*, April, 65, 67-80.
- [28] Guthrie, J. (2001). The management, measurement and the reporting of intellectual capital. *Journal of Intellectual Capital*, 2(1), 27-41.
- [29] Hamel, G. & Prahalad, C.K. (1991). Corporate imagination and expeditionary marketing. *Harvard Business Review*, July-August, 69, 81-92.
- [30] Han, J., Kim, N. & Srivastava, R. (1998). Market orientation and organizational performance: Is innovation a missing link? *Journal of Marketing*, October, 62, 30-45.
- [31] Harvey, C., Maclean, M., Gordon, J. & Shaw, E. (2011). Andrew Carnegie and the foundations of contemporary entrepreneurial philanthropy. *Business History*, 53(3), 425-450.
- [32] Hornsby, J.S., Kuratko, D.F. & Zahra, S.A. (2002). Middle managers' perception of the internal environment for corporate entrepreneurship: assessing a measurement scale. *Journal of Business Venturing*, 17(3), 253-273.
- [33] Hughes, M. & Morgan, R.E., (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. *Industrial Market Management*, 36, 651-661.
- [34] Hult, G.T.M., Hurley, R.F. & Knight, G.A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, 33, 429-438.
- [35] Hurley, R.F. & Hult, G.T.M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, July, 62, 42-54.
- [36] Khandwalla, P.N. (Winter 1976/77). Some top management styles, their context and performance. *Organization and Administrative Sciences*, 7(4), 21-51.
- [37] Kianto, A. (2007). What do we really mean by dynamic intellectual capital?. *International Journal of Learning and Intellectual Capital*, 4(4), 342-356.
- [38] Kianto, A. (2008). Development and validation of a survey instrument for measuring organizational renewal capability. *International Journal of Technology Management*, 42(1), 69-88.
- [39] Kianto, A., Hurmelinna-Laukkanen, P. & Ritala, P. (2010). Intellectual capital in service- and product-oriented companies. *Journal of Intellectual Capital*, 11(3), 305-325.
- [40] Kianto, A., Ritala, P., Inkinen H., & Vanhala, M. (2013). The interaction of intellectual capital stocks and knowledge management practices in organizational value creation, Paper presented at 8th International Forum on Knowledge Asset Dynamics 2013, Zagreb.
- [41] Krueger Jr., N. & Dickson, P.R. (1994). How believing in ourselves increases risk taking: perceived self-efficacy and opportunity recognition. *Decision Science* 25(3), 385-400.
- [42] Kuratko, D.F., Ireland, R.D., Covin, J.G. & Hornsby, J.S. (2005). A model of middle-level managers' entrepreneurial behavior. *Entrepreneurship. Theory and Practice*, 29(6), 699-716.
- [43] Lam, W., Shaw, E. & Carter, S. (2008). The role of entrepreneurial capital in building service reputation. *The Service Industrial Journal*, 28(7), 899-917.
- [44] Lau, T.L.M., Shaffer, M.A., Chan, K.F. & Man, T.W.Y (2012). The entrepreneurial behaviour inventory. A simulated method to assess corporate entrepreneurship. *International Journal of Entrepreneurial Behaviour & Research*, 18(6), 673-696.
- [45] Lumpkin, G.T. & Dess, G.G., (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21, 135-172.
- [46] Lumpkin, G.T. & Dess, G.G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance. *Journal of Business Venturing*, 16(5), 429-51.
- [47] Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734.

- [48] McGregor, J., Tweed, D. & Pech, R. (2004). Human capital in the new economy: Devil's bargain? *Journal of Intellectual Capital*, 5(1), 153-64.
- [49] Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770-91.
- [50] Miller, D. and Friesen, P.H. (1978). Archetypes of strategy formulation. *Management Science*, 24, 921-933.
- [51] Pret, T. & Shaw, E. (2010). Entrepreneurial capital: exploring the perspectives of craft entrepreneurs. www.isbe.org.uk, 1-15.
- [52] Rauch, A., Wiklund, J., Lumpkin, G.T. & Frese, M. (2009). Entrepreneurial orientation and business performance: an assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice*, 33(3), 761-787.
- [53] Roomi, M.A. (2013). Entrepreneurial capital, social values and Islamic traditions: Exploring the growth of women-owned enterprises in Pakistan. *International Small Business Journal*, 31(2), 175-191.
- [54] Sharma, P. & Chrisman, J.J. (1999). Towards a reconciliation of the definitional issues in the field of corporate entrepreneurship. *Entrepreneurship Theory and Practice*, Spring, 23(3), 11-28.
- [55] Shaw, E., Lam, W. & Carter, S. (2008). The role of entrepreneurial capital in building service reputation. *The Service Industries Journal*, 28(7), 899-917.
- [56] Shaw, E., Marlow, S., Lam, W. & Carter, S. (2009). Gender and entrepreneurial capital: implications for firm performance. *International Journal of Gender and Entrepreneurship*, 1(1), 25-41.
- [57] Slater, S.F. & Narver, J.C. (1995). Market orientation and the learning organization. *Journal of Marketing*, July, 59, 63-74.
- [58] Stringfellow, L. & Shaw, E. (2009). Conceptualising entrepreneurial capital for a study of performance in small professional service firms. *International Journal of Entrepreneurial Behaviour & Research*, 15(2), 137-161.
- [59] Sullivan, P. (1998). *Profiting from intellectual capital: Extracting value from innovation*. Wiley: New York.
- [60] Teece, D.J. (2000). *Managing Intellectual Capital*. Oxford: Oxford University Press.
- [61] Ulrich, D. (1998). Intellectual capital = competence x commitment. *Sloan Management Review*, 39(4), 15-27.
- [62] Voss, V.G., Voss G.B. & Moorman, C. (2005). An empirical examination of the complex relationships between entrepreneurial orientation and stakeholder support. *European Journal of Marketing*, 39(9/10), 1132-1150.
- [63] Wiklund, J. & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24, 1307-1314.
- [64] Zahra, S.A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of Business Venturing*, 6(4), 259-285.
- [65] Zahra, S.A. & Covin, J.G. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing*, 10, 43-58.
- [66] Zott, C. & Huy, Q.N. (2007). How entrepreneurs use symbolic management to acquire resources. *Administrative Science Quarterly*, 52(1), 70-105.

Rich-to-poor Diaspora Ventures: How Do They Survive?

Aki Harima, harima@uni-bremen.de
Jörg Freiling, freiling@uni-bremen.de
University of Bremen (Germany)

Maria Elo, maria.elo@utu.fi
Turku School of Economics, University of Turku (Finland)

Rich-to-poor Diaspora Ventures: How Do They Survive?

Abstract

This paper develops a first conceptual understanding of motivations and success/survival factors of 'rich-to-poor Diaspora Entrepreneurship (DE)' by focusing on an individual's cultural intelligence and learning ability. Rich-to-poor DE addresses entrepreneurial activities conducted in developing or emerging countries by diasporans originated from developed ones. Despite the growing research interest in the phenomena of DE and its increasing importance for societies and economies in the last decades, previous researchers have almost solely focused on entrepreneurship by diasporans whose country of origin is an emerging or developing one ('poor-to-rich DE'). This type of DE has been considered to be driven mainly by necessities, an outcome of the lack of financial and economic alternatives in their home countries (Cohen, 1997). Evidence from business practice, however, shows the existence and significance of rich-to-poor DE (e.g. Elo, 2013; Horiuchi, 2010). The aim of this paper is to clarify the difference between rich-to-poor DE and poor-to-rich DE and to develop research propositions as for motivations and success/survival factors of this type of entrepreneurship based on cultural intelligence theory (Earley, 2002) and learning theory.

Introduction

In recent years, entrepreneurial activities of diasporans have attracted increased research attention. Diasporans and their descendants are migrants who maintain a relationship to their country of origin (COO) (Safran, 1991). These people are in a special cultural constellation, being embedded in multiple cultures and societies of different countries (Drori, Honig, & Wright, 2009). Unlike the conventional image of immigrants who are losing their connection to their COOs gradually over time and generations, one of the significant characteristics of diasporans is their persistent sense of home country orientation (Brubaker, 2005). The diaspora phenomenon is of growing societal, political and economic significance, since the number of diasporans worldwide has been drastically increasing and their economic activities go beyond national borders. One of the facilitators of the increase of diaspora population is the rapid development of communication and transportation technology in the last decades which has made it easier for them to maintain the relationship to their home country, even though they live for a long time outside of the country they originate from.

Diaspora entrepreneurship (DE) comprises the entrepreneurial activities which are carried out in a transnational context and initiated by actors who are embedded in at least two different socio-cultural and economic arenas (Drori, Honig, & Wright, 2009). Compared to other types of entrepreneurship, DE comprises idiosyncratic advantages as well as disadvantages caused by its transnational nature. Since their business activities cover two or even more countries, they are more likely to encounter difficulties driven by liabilities of foreignness (Terjesen and Elam, 2009; Zaheer, 2002) and institutional constraints in several countries (Yeung, 2002). In spite of these disadvantages, some of previous literatures suggest that these entrepreneurs who undertake cross-border activities have unique resources with a positive impact on their business success such as diaspora networks (Kuznetsov, 2006). Besides this, their often global mindsets, their creativity, imagination and intuition put them into a more favorable position. In this vein it is also possible that their international profile is to some extent perceived as a market-relevant asset in their country of residence (COR). This plugs in the notion of 'assets of foreignness' as portrayed by Nachum (2010) and Freiling and Laudien (2012).

DE is highly heterogeneous due to the idiosyncrasy of the people founding such businesses. There are different possible dimensions subclassifying diasporans such as motivations for becoming diasporans (Cohen, 2008) or socio-economic and educational background (Leinonen, 2012). The degree of economic development of COO and COR is regarded as an important dimension for diaspora classification. For instance, diasporans originating from a developing country who become diaspora entrepreneur in a developed country (poor-to-rich DE) are different from those from a developed country who establish their business in a developing or an emerging economy (rich-to-poor DE) in many aspects (Elo, 2013). While their decision for immigration in case of poor-to rich DE is most likely driven by financial reasons such as lack of vocational alternatives in their COOs in the former case, 'rich-to-poor diasporans' have obviously more alternatives in their home market – and elsewhere. Therefore, it can be considered that their motivation to become diaspora entrepreneur is different than that of the former group. Despite of high degrees of heterogeneity of DE, previous

researchers have, however, predominantly focused on the economic and entrepreneurial activities initiated by poor-to-rich diasporans who move to richer countries seeking for a higher quality of life or better career opportunities. Originating from developed economies and giving up their career opportunities in their COO, however, is a still under-researched, yet empirically observable topic. What is particularly unknown is rich-to-poor diasporan's motivation and their entrepreneurial activities. Why do these people voluntarily leave their COO in face of uncertain conditions in the targeted COR? What are the enabling factors of successfully implementing this sort of entrepreneurship in terms of corporate survival? This paper responds to these research questions by focusing unique cultural as well as learning competencies of diasporans on the individual level. Our study contributes to diaspora, opportunity and intercultural interaction theories by establishing a first theoretical understanding of rich-to-poor DE with regard to their motivations and success/survival factors.

The structure of this paper is as follows: first the conceptual background will be presented along with diaspora entrepreneurship, cultural intelligence and learning theory. Second, the methodology applied to this paper will be briefly introduced. Third, based on the theoretical background we will develop research propositions in regard of the motivation of rich-to-poor diaspora entrepreneurs and success factors which are related to their individual competencies. Finally, an outlook will be presented.

Conceptual Background

Diaspora Entrepreneurship

Entrepreneurial and economic activities of diasporans have recently attracted substantial research attentions, since the total number of diasporans worldwide is growing. As globalization advances, the number of people who live outside of their COO has increased. According to the World Bank's 2011 migration and remittances report, more than 215 million people live outside their country of birth around the world, representing 3 percent of the world's population (World Bank, 2011). If migration continues to grow at the same pace as over the past twenty years, some analysts predict that there could be 405 million international migrants by 2050 (International Organization for Migration). The nature of diasporans has been changing as well. The number of migrants is and many maintain a strong connection with their home country. It is ascribed largely to a commitment to the culture of the COO but in close relation to the technical advancement of communication and transportation and therefore the prevalence of email, the internet, free or cheap internet phone based telecommunication, social networks and air travel (Tung, 2008). In addition to this, as heterogeneity of the population in many formerly mono-cultural cities and nations increases, various measures of both material and social support are offered, which makes the life of people living in foreign circumstance easier (Riddle, 2008). Thank to immigration policy and these supportive conditions, the number of people being classified into diaspora, who live outside COO and have home country connections, is increasing.

Barnard and Pendock (2013) notes that diasporans can also be influenced by negative feelings and affect regarding their COO. The negative experiences in COO may be one factor stimulating migration, but they clearly impact the loyalty and emotional relationship of an individual with his/her COO in diaspora. In addition to socio-economic and cultural factors also affect many increase mobility and the willingness to migrate. In terms of refugee-migrants, the reason to migrate is not based on economic or business opportunities, therefore their subsequent entrepreneurship in host country is constructed on a different logic and process than that of non-refugees. Therefore, there are various stimuli and processes related to becoming migrant and their entrepreneurial activities.

What explains the growing significance of diaspora entrepreneurship is not only the increasing number of diasporans worldwide, but also its growing impact in various manners. It is considered as a rich resource that brings promising prospects for economic growth such as remittance (Riddle, 2008) and diaspora FDI (Nielsen and Riddle, 2009). Diasporans are in such cases not simply a direct investor but play a role of knowledgeable bridge between two countries. Emigration of high-skilled people is used to be regarded as 'brain drain' to their COO. However, especially when they have moved from a less to a more developed country, their exposure to the more developed context can accelerate the introduction of new technologies and practices to their less developed homeland. Therefore, researchers in the last decade have initiated to shift the concept from 'brain drain' to 'brain circulation' (Teferra, 2005; Saxenian, 2005), which suggest that migrants often fulfill an important role as sources of new knowledge and innovation for their people

in their COO. To sum up, the contribution to their COO that diasporans make is often significant. Huang and Khanna (2003) maintain that without the diaspora contribution, the rapid economic development China and India have experienced in the last decades would have not been realized.

In the previous literature, DE has been observed from various perspectives both on macro and micro level. General macro environmental conditions with an influence on DE have been identified. Diasporans operate in two environments (COO and COR) and they are very different in terms of their level of development, political and legal aspects, socio-cultural dimensions, and technological development (Nkongolo-Bakenda & Chrysostome, 2013). Living in two different contexts require diaspora entrepreneurs a high degree of flexibility. Newland and Tanaka (2010) identified six factors which foster DE both in COO and COR: (i) strong economy, (ii) diaspora engagement policies (e.g., tax breaks, training centers, and educational institutions), (iii) good governance (low level of corruption and well-functioning public institutions), (iv) access to financial capital (good jobs, status, and loans), (v) favorable perception of entrepreneurship, and a (vi) a critical mass of human and social capital. Besides these factors, previous researches on institution have provided substantial understanding of this phenomenon on the macro level. Since diaspora entrepreneurs are embedded in multiple institutional environments, they must surmount the institutional constraints of two or more localities (Yeung, 2002). Drori et.al. (2009) argue that diaspora entrepreneurs are not simply passive adherents to institutional constraints, but actively mold them to suit their own unique initiatives. Riddle and Brinkerhoff (2011) regarded diaspora entrepreneurs as institutional agents who experience new institutions in COR and change the institutional environment of their home country. The emerging of diaspora in the COR is regulated by immigration policies. In addition, it has been widely discussed how economic activities of diasporans influence policy making of the COO. As previously discussed, DE has substantial positive impacts on their COOs in regard of homeland investment and knowledge transfer. There are also positive effects for COR. For this reason it is naturally a momentous issue for policy-makers how to develop favorable environment for diasporans (Talib, et al., 2012).

On the micro level, motives to become diaspora entrepreneurs as well as various factors which influence DE from the resource and capability perspectives have been discussed. Recent literature on DE has been inconclusive with regards to their motivations. Even though various motivations can be named, they are categorized in mainly two groups: business opportunity and some sort of homeland sentiments (Lin and Tao, 2012). Especially the altruistic character of motivations for DE has attracted considerable attention (Gillespie et.al., 1999; Nielsen and Riddle, 2010). When entrepreneurial activities are driven by opportunities, it is opportunity entrepreneurship. This type of entrepreneurship can be further distinguished as improvement-driven opportunity entrepreneurship, when entrepreneurs additionally seek to improve their income (Xavier et.al., 2012). While these two factors can be seen as pull-factors, there are also push-factors for diasporans to become entrepreneurs. Diasporans face often difficulties with career chances in COR in comparison to local population for several reasons: first, they experience cultural or linguistic problems in COR. This happens more likely when the culture and the language of COR are different from that of COO to a large extent. Second, academic and vocational qualifications they acquired in their COO are often not acknowledged properly in COR and therefore they are often forced to work in an underqualified position. This sort of qualification problems are relevant not only to diasporans from developing or emerging countries whose educational institutions are not as established as in developed countries but also to those from developed countries. For instance, many North American immigrants have no choice but becoming English teachers in Finland, since their American qualifications are undervalued (Leinonen, 2012). Third, diasporans often encounter so-called 'glass ceilings' in the course of their career, even though they perform as well as local employees at companies (Lin and Tao, 2012). For these reasons, diasporans may become self-employed in COR due to the lack of available vocational opportunities.

Besides motives for DE, a number of factors on the individual level have been identified by previous researchers. While various perspectives influencing DE, recent research has illuminated the significance of networks in entrepreneurial constellations of diasporans. The network diasporans organize or utilize is diversified: host, home, and the commonly called 'diaspora network' as well as social and entrepreneurial networks (Kuznetsov, 2006). Recent researchers have focused on this diaspora network as a unique entrepreneurial resource of diasporans and a possible success factor (Kuznetsov and Sabel, 2005, Saxenian, 2000). This kind of network, which is called diaspora network, offers various resources which advantage diasporans' economic activities such as labor from migrant pools at competitive cost, market-related information, suppliers, technologies and business practices (Light, Bhachu & Karageorgis, 2003).

Until now, mainly Chinese, Taiwanese and Indian diaspora networks, such as Chinese diaspora networks in Silicon Valley and Taiwanese venture capital in the United State, have been researched (Saxenian, 2000; 2002; Saxenian and Hsu, 2001). Diaspora networks also offer chances to diaspora members to see role models of former diaspora entrepreneurs. Having entrepreneurial role models is usually associated with a positive predisposition toward entrepreneurship, concretely for ethnic entrepreneurs (Toledano and Urbano, 2008). In addition to the three network factors which diasporans are involved in, family social capital has been named by some researchers as one of the influencing factor to DE. The family plays a supportive role when diasporans establish and operate small businesses. The family can be also seen as potential financial capital for DE (Sanders and Nee, 1996).

Even though various researches on DE have been conducted in the last decades, previous research has not succeeded to ascertain the full scope of this phenomenon, since it is highly heterogeneous. The dimensions that classify diasporans are diverse. For instance, diasporans can be grouped after their educational level. Unlike uneducated migrants, the highly qualified migrants, who are generally called ‘elite migrants’, are not seen as economic or social threats for the CORs (Leinonen, 2012). Therefore, immigration laws of many European countries provide for preferential treatment for elite migrants (Gropas & Triandafyllidou, 2007). Cohen (2003) classified diasporans by their nature of migrations: victim diasporas (Africans and Armenians), labor and imperial diasporas (indentured Indians and the British) and trade and business diasporas (Chinese and Lebanese). Another dimension for diaspora classification is the level of economic development of COO and COR. Elo (2013) made a categorization of diaspora entrepreneurs following the grade of economic development of COO and COR (Table 1). According this table, diaspora entrepreneurs are classified into nine groups by the level of economic development of COO and COR (developing, emerging and developed countries). The majority of previous researchers observed entrepreneurial activities in developed countries operated by diasporans either from developing or emerging countries. One of their primary motives for immigration is generally seeking for realizing a better life. We call such kind of entrepreneurial activities ‘Poor-to-rich’ DE. This type of DE has been regarded as necessity entrepreneurship, an outcome of the lack of financial and economic alternatives in their home countries (Cohen, 2003). Evidence from business practice, however, suggests that there are also people from developed economies in which an attractive employment market is given and higher levels of living standard are realized, courageously leaving their home country for living in an economically less developed country for founding a new business. E.g., Elo (2013) reported a case of German entrepreneurs in her narrative study about entrepreneurs from various nations in Uzbekistan. Horiuchi (2010) researched Japanese entrepreneurs in China in his ethnographic study. We call the entrepreneurial activities in developing or emerging economies operated by diasporans who are originated from developed countries ‘Rich-to-poor’ DE. To date, this type of entrepreneurial activities has been neglected by previous diaspora research.

TABLE 1: TYPES OF DIASPORA ENTREPRENEURSHIP

		Country of Residence		
		Developing	Emerging	Developed
Country of Origin	Developing	Developing market diaspora entrepreneurship (c.f. intra-regional diaspora in SE Asia)	„Lonely starter“ style diaspora entrepreneurship	High asymmetry-based classic diaspora entrepreneurship
	Emerging	„Early starter“ style diaspora entrepreneurship“ (c.f. Chinese and Indian in Africa)	Emerging market diaspora entrepreneurship (cf. Chinese in Brazil)	Medium asymmetry-based classic diaspora entrepreneurship
	Developed	„Colonial style“ diaspora entrepreneurship (cf. German in Senegal)	„Pioneer style“ diaspora entrepreneurship	Developed market diaspora (cf. US-Americans in Finland)

Source: Elo (2013)

Since evidence and propositions from prior research are found based on the poor-to-rich DE, it is essential to explore whether and to what extent they are appreciable to the case of rich-to-poor DE. The initial situation and

environment of rich-to-poor diaspora entrepreneurs are fundamentally different from that of the poor-to rich type. While economic and market situations in COO are less attractive compared to COR in the case of poor-to-rich DE and this economic gap largely justifies their strong motivations to move to a richer country and become entrepreneur, people from developed countries must have other reasons to leave their home country which offers attractive economic conditions and career opportunities to realize an adequate standard of living. It is also questionable, whether homeland sentiments (Lin and Tao, 2012), one of the pull factors for DE, which previous research has identified, can explain their motivation to become rich-to-poor diaspora entrepreneurs.

Despite of the findings from many studies that emphasize the role of diaspora network as an important resource (Kuznetsov, 2005; Saxenian, 2000; Dutia, 2012), actually there is very little empirical evidence, in what way and how intensive host-country based diaspora networks are relevant to entrepreneurial activities of rich-to-poor diasporans. Whether these diaspora networks are crucial in this case is questionable for mainly three reasons. First, the total number of diasporans from developed countries is smaller, since they experience generally no financial pressure to leave their country – compared to diasporans from developing or emerging economies. Therefore, the availability of such comprehensive diaspora networks is not comparable to that of Chinese or Indian ones. Second, rich-to-poor diaspora entrepreneurs are often aware of different ways how to develop a new business based on similar solutions in different settings. Insofar, they have often not only more resources and competences available compared to poor-to-rich DE but also blueprints of working business models in mind. Third, a large portion of the population in developed economies has often a rather cosmopolitan lifestyle where the role of tradition and religion is not of great significance. In such cases diaspora networks, which require intensive contributions of members and where shared uniqueness of cultural values and norms compared to these of the COR is essential, do not have the comparable relevance to them. Therefore, it seems possible to assume that rich-to-poor DE does not rest so much on the host country based diaspora network factors compared to poor-to-rich ones. Instead, it is implicitly assumed in extant research that the individual per se possesses crucial capabilities for cross-cultural contexts (Hart, 1974; 2011) and plays therefore an important role as a success factor also in diaspora business. For this reason, we focus on individual capabilities and experiences of diasporans to explore factors influencing the success of this sort of entrepreneurship. This paper attempts to conceptualize the success factors of this kind of ventures in the light of cultural intelligence ('CQ') theory (Van Dyne, Ang, & Livermore, 2010, Earley & Mosakowski, 2004) in connection with learning theory (Cohen and Levinthal, 1990; Baron, 2004; 2006; Ardichvili et.al., 2003).

Cultural Intelligence (CQ) Theory

While a number of ideas of different intelligences such as social intelligence (Vernon, 1933), emotional intelligence (Goleman, 1996; Salovey and Mayer, 1990) have received extensive attention, these intelligences failed to include cultural dimensions and are not necessarily fully applicable in contemporary cultural situations (Earley and Ang, 2003) and diaspora settings. Due to their multiple cultural embeddedness, diasporans operate in culturally demanding situations in comparison to other types of entrepreneurs. Therefore, it is assumed that diaspora entrepreneurs are required to have unique capabilities to handle culturally challenging situations. CQ is helpful to understand why some individuals are more effective than others in dealing with situations that are culturally diverse (Ang, Van Dyne, and Koh, 2007). While most people meanwhile know the importance of intelligence quotient (IQ) and emotional intelligence (EQ), one's ability to lead and interact with effective emotional sensibilities, as measurement of one's capability in business environments, CQ has attracted attention as a new criterion for one's intelligence that can not be explained by IQ and EQ. CQ addresses one's intellectual capabilities to cope with intercultural settings and challenges. CQ is defined as an individual's capability to effectively deal with situations characterized by cultural diversity (Earley and Ang, 2003).

Its general structure consists of three facets including cognitive, motivational and behavioral elements (Earley, 2002). According to Earley (2002), CQ reflects cognitive processing capacities in various ways. Thereby two factors play a significant role: cognitive flexibility and reasoning skills. Cognitive flexibility is critical to CQ, since people are required to constantly reshape and adapt themselves to understand new setting in new cultural situation. In order to build higher maturity levels of CQ, strong reasoning skills are also essential, since a person attempts to make sense of a meaning of significant cues in the environment by means of inductive reasoning, when they come into situations which can not be judged based on their own cultural criteria. Another important aspect of cognitive

functioning in connection with CQ is a person's metacognition. Metacognition refers to thinking about thinking, or knowledge about cognitive objects (Flavell, 1987). Metacognition is critical, as one is required to bring together patterns into a meaningful picture without knowing what the right picture might look like. Possessing (meta-)cognitive capabilities is not sufficient. One must be motivated to use this capability and produce a culturally appropriate response. While cognitive CQ refers knowing what and how to do and motivational CQ refers to having the wherewithal to persevere and exert effort, the third facet of CQ, behavioral CQ, relates to responses to a given situation based on one's behavioral repertoire (Earley and Ang, 2003). Earley (2002) argues that a person with a high CQ has a propensity to determine where new behavioral patterns are needed and how to execute them effectively in new cultural contexts. Based on the theoretical concept of CQ, this paper will explore diasporans' cultural capabilities and develop relevant research propositions.

Learning Theory

Since diasporans' cultural knowledge and capabilities change and evolve as they are influenced by learning, taking particular note of learning capacities on the individual level of diasporans provides also a certain understanding of success of rich-to-poor diasporans' businesses. Diasporans are embedded to a certain extent in social institutions of their origin and home societies (Drori, Honig, & Wright, 2009). Their double interconnectedness in two different 'worlds' provides them, consciously or not, with a diverse cultural background which may be related to their ability to learn external knowledge. For the purpose of exploring diasporan's learning ability, we first discuss their absorptive capacity. Absorptive capacity is defined as the learning ability to recognize the value of new, external information, assimilate it, and apply it to commercial ends (Cohen and Levinthal, 1990). Cohen and Levinthal (1990) argue that mainly two factors influence on absorptive capacity: prior related knowledge and the diversity of the background. Due to the cumulative character of learning processes, people can learn more efficiently when learning objects are related to their prior knowledge. Along with prior knowledge, diversity of the background plays also a significant role for one's learning. When uncertainty regarding the knowledge sphere exists where potentially useful information might emerge, possessing a diverse background increases the possibility that incoming information will be related with a part of their knowledge. This enhances the efficiency of learning. In the section of research propositions, we will discuss diasporan's learning capabilities based on their absorptive capacity and how they influence on the success or survival of rich-to-poor DE.

Methodology

This is a conceptual study which reviews and develop the theoretical discussion on motivation as well as success factors of DE by employing a novel synthesized perspective. While there are indications for the importance and relevance of rich-to-poor DE (Flisi and Murat, 2011), the factors of successfully running these businesses are largely unknown. There are partial explanation for some aspects, but yet there is no study available focusing on these success factors. Therefore, we build on prior research on successfully implementing new ventures as well as on research on migration entrepreneurship or poor-to-rich DE, respectively. The object of interest is the individual, the diaspora entrepreneur, and the endogenously generated success factors. For developing a first understanding of the particular profile of rich-to-poor DE and the drivers of corporate survival of this type of new ventures we employ a theoretical lens. This lens is informed by theories of cultural intelligence (Earley & Mosakowski, 2004) and learning theory. Cultural intelligence theory (Earley & Ang, 2003) is chosen to address the capacities of people and organizations to deal with different and often complex intercultural environments. Individuals' absorptive capacity theory (Cohen and Levinthal, 1990) is chosen to address the learning ability which outcomes measures (e.g. corporate survival) of rich-to-poor DE. They allow a deeper understanding of the cognitive dimension of establishing these ventures. These theories provide us with potentially relevant cause and effect structures that help in explaining corporate survival regarding DE. Corporate survival as explanandum is chosen as an adequate indicator of new venture performance (Chrisman et.al., 1999; Freiling, 2012). The aim of this paper is developing research propositions on the motivations for DE as well as the factors influence corporate survival, while pinpointing assumptions on the differences between poor-to-rich DE and rich-to poor ones. Insofar, the design of this paper is explorative and conceptual.

First, we review the extant research and analysis. There the concepts and findings are explored and analyzed with our lenses and focus, then these are reflected and built into synthesized assumptions. This is carried out in a team of three researchers providing as sort of triangulation effect (Denzin, 1978). Together with the rich extant research which provides the ground for the development of propositions, and some preliminary findings (Elo, 2013), we reflect the gaps and create novel research propositions and question the validity of some extant assumptions. A conceptual design is chosen to guide future research activities by causal structures proven in different research contexts that are highly related to prior research on DE phenomena. This procedure is much more framed than interpretive research designs based on qualitative research (Piekkari and Weich, 2005). The reason for narrowing down the topic by this theoretical framing is the considerable complexity of the topic. Otherwise the field of research would be rather wide open. In later steps of reality checks it is possible to consider other explanatory forces of corporate survival rather than the ones derived from theory. Since prior research suggests a considerable explanatory power of learning and CQ-related issues it deems useful to select this approach. This study intends to derive a larger set of research propositions that could be empirically tested. The purpose is to move from general assumptions towards more specific assumptions to assist and develop the research on DE, although we are aware that rich-to-poor DE can be very idiographic and context specific. The set of propositions can be selected to match the research questions and the empirical research.

Research Propositions

Based on research on DE in relation with theoretical lens we discussed above, we will discuss motivations and success factors of rich-to-poor DE to develop research propositions in this section.

Migration is driven by its push and pull factors which differ for refugees, irregular and regular migrants. The origin of the entrepreneurship may lie already in the pre-migration phase, but we concentrate on the post-migration phase. The reasons why some diasporans decide to become entrepreneurs can be classified into push and pull factors. The difficulties immigrants generally face in CORs are regarded as push factors. Many of diaspora entrepreneurs either from developing or emerging economies have been seen as necessity entrepreneurs (Cohen, 2008), since they do not have other options to provide themselves and their family members with a financial basis for living. Thus, they found a company by themselves. Diasporans usually encounter a number of problems with language, culture and therefore career chances (Leinonen, 2012; Lin and Tao, 2012). The general lack of job opportunities in CORs results in the higher rate of self-employment within migrants compared to non-diasporans (OECD, 2010).

However, rich-to-poor diasporans are in a different position from poor-to-rich ones. In the case of diasporans from a poor country living in a developed economy, it maybe a suboptimal option to stay in CORs due to their strong economy, high living standards, political stability and advanced social welfare which are not available in their COOs. There are also numerous migrant workers who seek also temporary employment abroad, but who do not have the possibility to start entrepreneurial activities. In general, the poor-to-rich diasporans suffer from limited resources and may also be subject of economic pressure in the form of remittance expectations. On the contrary, rich-to-poor diasporans have a choice to go back to their home country, if they are not willing to overcome the difficulties in the job market of CORs. As Leinonen (2012) points out, there are also people from developed countries who decided to emigrate from their home country for their marriage partner from a different country which forms a pull factor. However, these people are not representative for rich-to-poor diasporans. For this reason, it can be assumed that push factors do not play a significant role for rich-to-poor diasporans. When pull factors are more relevant when comparing rich-to-poor DE to poor-to-rich DE, there is an impact on corporate survival for push factors are very often related to necessity entrepreneurship and a more defensive position of the new venture. Thus, rich-to-poor DE is much less defensive and opportunity driven (Block and Sandner, 2007; Baum and Locke, 2004). This can have a positive impact on corporate survival. Therefore, we propose that:

P1. Rich-to-poor DE is less necessity driven and defensive which is positively related to corporate survival.

As for pull factors for DE, it has been observed that diasporans start their own business connected with some kind of homeland sentiments that might have an impact on the kind of business (Lin and Tao, 2012). Diasporans have homeland sentiments on different levels.

Diaspora entrepreneurs may act in one or several markets in parallel. Here, we focus on COR-based investments, but diasporans often invest and venture also in their COO and may also use their intercultural competences for business and investment in third countries. Some diaspora homeland investments can be explained by their altruistic motivations, while others are motivated by the personal wish to stay in touch with their COOs. In many cases, it is a suboptimal situation that drives people from economically underdeveloped countries to migrate into a developed country. They leave their homeland not because they do not like their country anymore, but because they do not have any chance to realize the life they wish due to weak economic, politics or institutions. In other words, some of poor-to-rich diasporans would possibly stay in their home country, if their COOs provided better conditions (Lin and Tao, 2012). In such cases it can be considered that people have a strong wish to stay connected to their homeland and to contribute the improvement of economic as well as living situation of their COOs (Gillespie et.al., 1999). The decision to move to a economically less developed country for rich-to-poor diasporans is less influenced by negative push factors as they do not exist in similar intensity and scope in developed countries. Hence, the pull factors need to counterbalance the lack of push factors in some way, possibly also in the form of entrepreneurial opportunity.

Starting a business as a person from a developed country makes sense from an economic point of view for several reasons. First, the markets of developing or emerging countries become attractive, when the rate of economic development is higher than in developed countries. The rapid economic advance creates new business chances, as the living standard of population becomes higher. In China, for instance, the so-called 'new middle class', who used to be belong to the low class and can now afford better products, has arisen due to the drastical economical development in the last decades (Farrell et.al., 2006). These people have started to consider the quality of products and got interested in products from developed countries (Horiuchi, 2010). This sort of new demands are regarded as new business opportunities for people from developed countries. Second, early-stage capital for new businesses in emerging or developing economies is lower than in developed countries. Horiuchi (2010) argues that only 10% of early-stage capital is required in Shanghai compared to Tokyo. Third, the markets of developing and emerging markets are not yet mature and saturated, thus establishing unique selling propositions (USP) is easier outside of COO from the competitive point of view, when domestic products or services that are common in the COO but not outside are offered. Due to the existence of a myriad of competitors offering similar products or services, establishing a successful business in COO is a difficult challenge for many entrepreneurs. However, if product concepts which are specific to a developed economy are brought to developing or emerging countries, there are not many competitors who offer similar products and therefore establishing a USP is much easier than in contexts of developed countries. Besides these economic advantages, the decision to move out of their COO can be explained by dissatisfaction, emptiness and frustration with their home market as well as variety seeking. Since the gap between the rich and the poor in developed countries is smaller, people have a sort of dilemma that they cannot get out of the middle class regardless their qualification and personal efforts for their career. On the contrary, accessing the upper class life is easier in developing or emerging countries. Some rich-to-poor DE is motivated by this middle-class dilemma (Horiuchi, 2010). For these reasons discussed above, we can develop the next research propositions:

P2. Rich-to-poor DE is motivated mainly by the opportunity to achieve unique selling propositions in developing or emerging countries and thus to contribute to corporate survival.

P3. Rich-to-poor diaspora entrepreneurs are motivated to start their business in developing or emerging countries as means to develop their life dreams, overcome the middle-class dilemma and to energize their lives which has a positive impact on corporate survival.

Leinonen (2012) pointed out the significance role of marriage and family ties in the life decisions of migrants. Possessing strong personal relationships in COR on the individual level can be a driver of migration. For instance, American migrants in Finland she observed in her study would not have come to Finland, if their partner were not from Finland and they did not want to live with their partner in their home country (Leinonen, 2012). Such migrants have strong personal ties to local people which could be advantageous for their entrepreneurial activities, since they are native speaker of the country and naturally know the market situations well. When such migrants decide to start a business, they are assumed to rely on these personal ties with local personals to a substantial extent. Therefore:

P4. Rich-to-poor DE is positively influenced by COR-based individual-level personal relationships (strong ties: partner, close friends) that contribute to corporate survival

As we discussed in the section on the conceptual background, we will focus on individual capabilities of diasporans as success factors of rich-to-poor DE. Since diasporans live in culturally complex situations and their businesses spread to two or more countries, we can estimate that intercultural competencies play an essential role for the success of their business. Therefore, we will explore their culture-related capabilities along with the theoretical lens of CQ (Van Dyne, Ang, & Livermore, 2010, Earley & Mosakowski, 2004). CQ is defined as an individual's capacity to deal effectively in situations characterized by cultural diversity (Earley and Ang, 2003). CQ is highly related to interaction in business environments of diasporans. Starting DE is realized through communication and negotiations with various related actors such as cooperation partners, employees, or co-founders in culturally demanding settings. Antal and Friedman (2003) discussed that individuals with higher intercultural skills possess an ample repertoire from which various action strategies dealing with situations are conducted and can realize more effective interaction. CQ is conceptualized along three dimensions, namely a cognitive, a motivational and a behavioral one (Earley, 2002). We will discuss diasporans' CQs along with these three elements respectively.

Cognitive CQ is a dimension for an individual's capability to deal with cultures and reflects cognitive flexibility and reasoning skills. Since high CQ levels require a capability of modifying one's self concept (and concept of others) in new complex configuration, flexibility and a capability to inductively reorganize one's self concept is necessary. Earley (2002) argues that bi- or multi-cultural persons, who have an awareness of more than a single culture, are an exceptional case, since their self concept is so complex that they can reflect the flexibility needed for CQ. Diasporans are those who are embedded in multiple cultural contexts (Drori, Honig, and Wright, 2009) and can therefore be assumed to have a higher flexibility as well as capacity to reshape a self concept to understand a new cultural setting. Furthermore, compared to poor-to-rich diasporans who tend to rest strongly on their ethnic network in CORs, the role diaspora network plays for rich-to-poor diasporans is not that significant for mainly three reasons: first, the total number of diasporans from developed countries is smaller and therefore the size as well as the intensity of diaspora networks in each city are not comparable to that of poor-to-rich diasporans, second, rich-to-poor diasporans are expected to have more individual resources and competencies and therefore they do not have to rely on networks so much, and, third, the large portion of people from developed countries often has a somewhat cosmopolitan lifestyle and therefore do not need access to ethnic networks so much to share their culture and religion. For this reason, diasporans originated from developed economies are more likely to exposure to intercultural interaction in CORs. They are more experienced in a sort of detective work to ascertain significant cues in the environment, which lead the stronger reasoning skills. In addition to cognitive flexibility and reasoning skills, high cognitive CQ requires a higher level of learning thanks to metacognitive CQ (Earley, 2002). In order to be successful as entrepreneurs outside the home country without depending on diaspora networks, it is essential to understand the culture of COR thoroughly. A number of companies attempts to train their employees by providing country-specific information (Earley, 2002), since many literatures recommend the adaptation strategy of a six-stage model by Benett (1996) as the appropriate one for the majority of expatriates to deal with cultural differences. This model identifies six strategies to handle cultural differences: (1) denial of difference, (2) defense, (3) minimization, (4) acceptance, (5) adaptation and (6) integration. The adaptation strategy is defined as knowing enough about different cultures to “ (...) intentionally shift into a different cultural frame of reference” and modify their behavior to fit the norms of another culture (e.g. Earley & Erez, 1997). However, many cultural training programs fail, since this approach over-emphasizes superficial information about specific cultures and does not offer general learning principle (Earley, 2002). Since rich-to-poor diasporans are required to have a deep understanding of the host culture, an effective meta-strategy is useful to overcome cultural difficulties. Therefore, we propose:

P5-a. Due to the double cultural interconnectedness, rich-to-poor diasporans possess a richer cognitive background and more flexibility than local entrepreneurs, which is positively related to corporate survival.

P5-b. Since rich-to-poor diasporans are required to make sense of a new cultural context without a significant ethnic business community of their COO, they possess a stronger cultural reasoning skill, which is positively related to corporate survival.

P5-c. Through cultural learning processes, rich-to-poor diasporans develop metacognitive CQ, which is positively related to corporate survival.

In order to build considerable intercultural competencies, possessing high cognitive CQ is not sufficient. One has to be motivated in learning new cultures and believe in their own capability to acquire and use the knowledge and

produce a culturally appropriate response. Earley (2002) argues that self-efficacy plays an important role in motivational CQ, since successful intercultural interaction is based on a person's sense of efficacy for social discourse in a novel setting. He maintains that a person with a weak sense of self-efficacy tends to disengage in learning new cultures after experiencing early failures. Motivational CQ includes intrinsic motivation, the degree to which you enjoy culturally diverse situations, and extrinsic motivation, the more tangible benefits you gain from culturally diverse experiences, and self-efficacy (Van Dyne, Ang, and Livermore, 2010). Unlike the case of poor-to-rich diasporans who live in part unwillingly in a foreign country, many of rich-to-poor diasporans proactively decide to move to a foreign country, while giving up the comfortable market and living situations of their COOs. They are assumed to have a stronger willingness to establish the new life in COR and to have a higher motivation to learn new cultures compared to poor-to-rich diasporans. Moreover, rich-to-poor diasporans interact personally with many local people in CORs and they are experienced in intercultural communication as well as negotiations. Therefore, they are more likely to be confident in their own capabilities to deal with culturally novel situations.

P6. Rich-to-poor diasporans benefit from personal motivation and stronger self-efficacy in understanding culturally new situations, which is positively correlated to corporate survival.

Behavioral CQ is the action dimension of CQ which refers to the individual's ability to act appropriately in a range of cross-cultural situations (Van Dyne, Ang, and Livermore, 2010). While mimicking every behavior of people from another culture is impossible, there are certain behaviors that should be modified when one interacts with other cultures. For instance, giving one's business card to another person only by one hand means arrogance in the Japanese business environment and the person might be regarded as impolite, even though it is a normal way in Western culture. When Japanese managers have negotiations in Western countries, their expression can be misleading, because they mostly smile and try to avoid mentioning something negative in a direct way, even though they are unsatisfied. Adapting one's behavior to a target culture is a significant part of intercultural interaction. By behaving in a similar way as people from another culture, people can ease situations and make others feel comfortable. In culturally complex situations where diasporans operate, knowing where new behavioral manners are required and how to execute them effectively is essential in order to smoothly launch intercultural negotiations.

P7. Possessing high behavioral CQ allows smooth intercultural interactions and is, thus, positively related to corporate survival.

P8. Advanced learning skills of the entrepreneur affect the employment of cognitive abilities which are necessary for successful opportunity development and thus contribute to corporate survival.

As previously discussed, diasporans are assumed to have unique learning capabilities due to their double social and cultural embeddedness (Drori, Honig, & Wright, 2009). We explore their learning ability illuminated by absorptive capacity on the individual level. Absorptive capacity is influenced by prior related knowledge and the diversity of background (Cohen and Levinthal, 1990). Diasporans possess a richer cultural and social background due to the longtime living experience acquired in the COR and the regular contact to the COO. Based on socio-cultural and business knowledge of the COO and the COR, diasporans' background is highly diverse compared to non-diaspora entrepreneurs. Therefore, we assume that diasporans possess a greater absorptive capacity and therefore higher learning abilities.

The learning ability is connected to entrepreneurial opportunity recognition. According to Baron (2004), opportunity recognition can be regarded as 'the cognitive process (or processes) through which individuals conclude that they have identified an opportunity' (Baron, 2004; Page. A1). Opportunities can be seen as complex, discernible patterns (Baron, 2004; 2006). Baron suggests that it is necessary to fully understand how individuals identify complex patterns to consider two cognitive models: the prototype model (Smith, 1995) and the exemplar model (Hahn and Chater, 1997). In the prototype model it is assumed that people compare newly encountered stimuli or events with existing prototypes to determine whether they belong to specific categories (Baron, 2004). As for opportunity recognition, the closer the match between information which is potentially relevant to business opportunities and individuals' existing prototypes, the more likely they identify an opportunity. The exemplar model suggests that individuals compare new events or stimuli with specific exemplars of relevant concepts in their memory. This exemplar includes a number of examples of business opportunities they have encountered in the past. As we discussed above, diasporans are assumed to have a higher learning ability compared to non-diaspora populations and therefore they acquire external knowledge more efficiently. For this reason, we can assume that diasporans also have a wider

variety of prototypes as well as exemplars, which enhances individuals' cognitive diversity. Possessing a high level of cognitive diversity is positively related to entrepreneurial opportunity recognition (Baron, 2006).

While the discussion above is applicable to diasporans in general, rich-to-poor discussion above is applicable to diasporans in general, rich-to-poor diasporans have an additional attribute. Ardichvili et.al. (2003) discuss that especially prior knowledge of market and customer knowledge increases the likelihood of successful entrepreneurial recognition. Rich-to-poor DE can be stimulated by new developments in the COO that often runs ahead of the development in the COR. Such entrepreneurs have extensive knowledge of the market and products/services which are common in developed countries but not yet in developing/emerging ones. Therefore, we can assume that rich-to-poor diasporans more likely recognize entrepreneurial opportunities in which they can utilize their market knowledge of their home country in COR (Fig. 1). Identifying and selecting right business opportunities are one of the crucial abilities to become successful entrepreneurs (Stevenson et.al., 1985). Therefore we propose:

R9: Rich-to-poor diasporans can recognize entrepreneurial opportunities which are not recognized by other types of entrepreneurs due to their high learning abilities, which is positively related to their corporate survival.

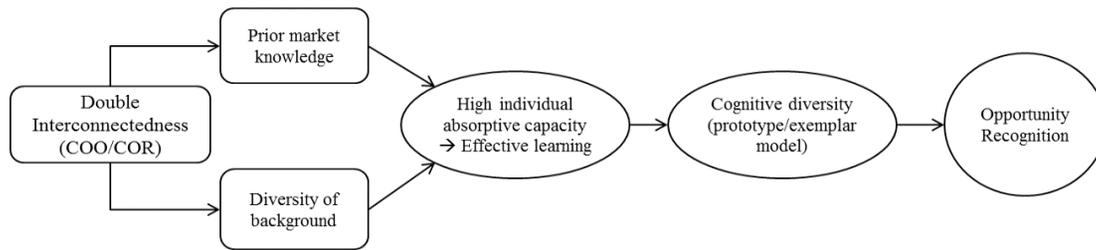


FIG. 1: OPPORTUNITY RECOGNITION OF RICH-TO-POOR DIASPORA ENTREPRENEURS

Discussions and Research Prospect

The extant research provides a plethora of aspects related to diaspora and entrepreneurship, but many findings are rather case- and context specific. Based on our review on related concepts, extant research and current assumptions, we created a first conceptual understanding of rich-to-poor DE and developed research propositions for their motivation and success/survival factors. First, by contrasting poor-to-rich DE and rich-to-poor DE from a viewpoint of the economic situation as well as business environment surrounding diaspora entrepreneurs in COOs and CORs, we discussed the motivation of diasporans from developed countries to start new ventures in economically less developed countries. We proposed that such sort of entrepreneurship is rather opportunity-driven, since developing/emerging economies offer several attractive market conditions such as: (i) increasing demand for new products/services caused by the rapid economic advance, (ii) early-stage capital for new business is lower than in developed countries, (iii) USP is easier to establish due to favorable competitive situations, (iv) the chance to overcome 'middle-class dilemma' (Horiuchi, 2010). Subsequently, we identified a gap in the body of knowledge in terms of rich-to-poor diaspora and the endogenous success factors on the individual level. The inherent intercultural context in DE suggests advancing the understanding of abilities and intelligence that are either personal traits and talent or learned competences or a combination of both. Since the education level is often concerned as an important a priori success factor for success in international business and diaspora research, we focus on individual CQ (meta-cognitive, cognitive, motivational, behavioral) and learning. We argued that diasporans are different from mono-cultural entrepreneurs as they are more culturally capable and exposed to a double interconnectedness. We proposed that rich-to-poor diaspora entrepreneurs possess all the three types of CQ at a high level and therefore they are able to communicate or negotiate in intercultural contexts in an efficient way, which is positively related to their corporate survival. Besides CQ, we also discussed diasporans' absorptive capacity on the individual level. We proposed their

double interconnectedness in COOs and CORs enhances their absorptive capacity, which eventually leads to successful or unique opportunity recognitions.

DE is a highly heterogeneous phenomenon. Despite of previous research efforts, the whole picture has not been clarified successfully. Even though the phenomenon of rich-to-poor DE exists and has been observed in practice, it has largely been neglected by diaspora research. Our study contributes to research on DE by taking the first step to establish theories of rich-to-poor DE. Theoretical implications are expected to be significant once the propositions are tested empirically. We expect the employment of these propositions to be able to develop important findings the entrepreneurship research in terms of personal characteristics and dynamics in learning and behavior that explain essential building blocks of venturing and corporate survival. In addition, we assume that many of the proposed factors and the respective influences, when explored and tested, provide novel insights to the dynamics and forces that regulate the degree of success and perhaps event the element of success. Qualitative methods are suitable as the first empirical study, since rich-to-poor DE is a new and under-researched phenomenon. Through observation in detail with the aid of qualitative methods such as case study method or depth-interview, further aspects or factors might be identified.

As the individual level is one of the crucial elements to be understood, both for diaspora ventures but also for DE support policies, we found that the aspect of CQ requires further attention as a potentially strategic success factor. Diaspora entrepreneurs and their learning processes are beneficial to the individual, the venture, and potentially also the COO and the COR. The generated success should be considered as one of the goals also in the supportive policies of COR, the lack of policy understanding may create substantive hindering factors for efficient employment of positive spillover effects. Transition and developing countries have yet to improve their employment of entrepreneurial potential of diaspora.

Future research is also needed to clarify the role of other dimensions of diasporans such as educational background, generation, diaspora lifecycle and genders. Which differences exist between well-educated rich-to-poor diaspora entrepreneurs and uneducated ones? What are motivations and influencing factors of the second-generation diasporans in developed countries whose parents immigrated from developing/emerging countries? In which stage of personal migration history do they become diaspora entrepreneurs? Do female rich-to-poor diaspora entrepreneurs have different motivations or competencies than male ones? Exploring how these dimensions influence on rich-to-poor DE is needed to enhance the understanding of this phenomenon.

References

- [1] Ang, S., van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C. & Chandrasekar, N. A. 2007. Cultural Intelligence: Its Measurement and Effects on Cultural Judgment and Decision Making, Cultural Adaptation and Task Performance. *Management Organization Review* 3 (3), 335–371.
- [2] Antal, A. B. & Friedman, V. 2003. *Negotiating Reality as an Approach to Intercultural Competence*. Social Science Research Center Berlin (WZB).
- [3] Ardichvili, A., Cardozo, R. & Ray Sourav 2003 - *A Theory of Entrepreneurial Opportunity Identification and Development*. *Journal of Business Venturing* 18, 105–123.
- [4] Barnard, H., & Pendock, C. 2013. To Share or Not to Share - The Role of Affect in Knowledge Sharing by Individuals in a Diaspora. *Journal of International Management* 19 (1), 47-65
- [5] Baron, R. A. 2004. *Opportunity Recognition - A Cognitive Perspective*. Academy of Management Best Conference Paper.
- [6] Baron, R. A. 2006. Opportunity Recognition as Pattern Recognition - How Entrepreneurs "Connect the Dots" to Identify New Business Opportunities. *Academy of Management Perspectives* 20 (1), 104–119.
- [7] Baum, J. R. & Locke, E. A. 2004. The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth. *Journal of Applied Psychology* 89 (4), 587–598.
- [8] Bennett, M. J. 1986. *A developmental approach to training for intercultural sensitivity*. *International Journal of Intercultural Relations* 10 (2), 179–196.

Please Contact the authors for the full list of references

The impact of intrapreneurship in a modern enterprise

*Jože Kocjančič, joze.kocjancic@siol.net
Faculty of Information studies, Slovenia*

The impact of intrapreneurship in a modern enterprise

Abstract

This paper investigates intrapreneurship, competition and company efficiency in large Slovenian companies in order to provide unique in-depth firm-level evidence and management implications on the extent to which companies exploit available internal business potentials. The survey data for the sample of large Slovenian companies and statistical methodology are used to analyse the association between intrapreneurship, competition and company efficiency. The empirical results confirmed the significant impact of the internal business potentials on the operating results of the analysed companies. The utilization rate of internal business potentials was only partially or ill-used, reflecting the internal potential source of unused business opportunities as one of possible ways to improve competitive advantage and company efficiency. The originality/value is in unique in-depth survey evidence and original empirical results with management implications emphasizing the importance of long-term managerial strategy towards innovation and encouraging creativity as the basis for successful internal corporate business strategy to improve competitive advantage and company efficiency.

Introduction

The aim of the article is to establish an association in what degree Slovenian companies take advantages of intrapreneurship or internal entrepreneurial potentials within the company. The research is based on the investigation of the willingness of company employees, particularly of the company managers, for re-establishing of favourable internal entrepreneurial climate in searching for individuals and groups of employees, which are willing for intrapreneurial challenges within the company as a way to increase the company's market competition and company efficiency.

More specifically, the scope of the article is to assess the presence of intrapreneurship in the Slovenian companies and how it is recognized among the company employees, particularly among the enterprise managers, as a factor for company market competition in a way to achieve the company long-term success. Findings are important for theory of intrapreneurship, market competition and company efficiency, and for management decision making process to achieve better company business results arising from an existing intrapreneurship in the company or from its introduction to increase company's market competition during restructuring and adjustments to rapid economic changes.

The theoretical background and foundations for this research are economic theoretical insights and empirical analysis of entrepreneurship, intrapreneurship with human resource management, market competition and company efficiency in the ways of functioning of the internal corporate culture in the modern company and its competitive markets (Parker, 2011; Kuratko *et al.*, 2009). The corporate social responsibility to internal employee motivation might also play an important role for intrapreneurship (Koellinger and Thurik, 2012). The extent of intrapreneurship is analysed for the sample of the Slovenian companies focusing on how the employees, particularly managers, perceived intrapreneurship as the source of the company's market competition and company efficiency success. We investigate the extent to which intrapreneurship can affect the operating results of the company in competitive markets.

The rest of the paper is organized in the following ways. The next section presents the basic theoretical and empirical knowledge of entrepreneurship (e.g. Schumpeter, 1951; Birch, 1993; Bailey, 1984; Antončič and Hisrich, 2003; Audretsch and Keilbach, 2004; Audretsch *et al.*, 2006; Timmons and Spinelli, 2006), intrapreneurship and the ways of functioning of the internal culture of entrepreneurship in modern businesses on company efficiency in competitive markets (e.g. Schollhammer, 1981; Pinchot, 1985, 2002; Duncan *et al.*, 1988; Garvin, 2002; Hisrich, 2009; Kuratko *et al.*, 2009; Drucker, 2001). The following section presents and explains the empirical results of the analysis of the surveys and interviews in the Slovenian companies. The next section presents managerial and policy implications, while final section derives main conclusions.

Theory of entrepreneurship and intrapreneurship

In the global market competition to succeed by the business operators it is necessary to develop new products and doing business better and faster than their competitors. These developments require a different corporate culture, which differs from traditional views of the internal organizational culture. Modern companies need to develop necessary entrepreneurial culture within existing businesses, as part of the innovation process in order to contribute to the competitive survival of existing and growth of new companies in rapidly changing competitive markets.

Entrepreneur and entrepreneurship

Entrepreneurship as an opportunity for business entrepreneurial activities is mainly pertained with small businesses. Entrepreneurs are creative individuals who are able to connect the ideas of organizational and manufacturing resources to enable them to derive an entrepreneurial venture. The link of ideas, entrepreneurial skills and the means of production can enable a small business to grow quickly into a large organization (Birch, 1993; Audretsch and Keilbach, 2004; Timmons and Spinelli, 2006). During the recent economic recession period, large companies have faced difficulties and have tried to solve them by reducing the number of employees. On the other hand, the importance of small businesses for the national economy has been the most important. Small and medium sized enterprises in harsh economic and financial conditions may play an important role in labour market flexibility. Namely, with growth of their output sales, they may attract labour into employment, particularly those who have lost jobs in large companies and have flow into unemployment. Some of them may even establish own self-employment or small firms. However, it is necessary that small businesses are not only a creator of new jobs, but also an important source of innovation and entrepreneurial activities (Schumpeter, 1951; Bailey, 1984; Audretsch *et al.*, 2006; Zahra et al, 2009).

The reason that economic theorists, with the exception of Schumpeter (1951) focusing on large companies, in the past did not include entrepreneurship in their economic models, mainly lies in the fact that the impact of entrepreneurship on economic growth is difficult to define and even harder to quantify in the production function. Since the 1980s a focus in literature on economic growth and development has changed. Particularly, Birch (1993) conducted the study on the employment of all U.S. firms during the period 1969-1979. His research showed that during this period the companies with one hundred or fewer employees created 81% of jobs.

Intrapreneurship

The concept of intrapreneurship is considered as an entrepreneurship within large companies. Employees in large companies generate new ideas and identify new business opportunities that are aimed to be realized within the existing business support mechanisms. The traditional view of corporate entrepreneurship defined entrepreneurship is an internal process where an individual within the existing system is looking for business opportunities, without taking into account the established formal channels (Stevenson, 1990). Some researchers have used a narrower definition focusing primarily to corporations, while smaller companies were excluded from the study (Schollhammer, 1981; Drucker, 2001; Garvin, 2002). The advantage of companies that are able to engage the business-oriented individuals or groups within their existing businesses lies in an ability to quickly detect problems and business opportunities in a business environment in which they operate, and then try to creatively solved them, leading to a process of market restructuring in order to improve competitiveness of their products. Internal entrepreneurs have a possibility to use the existing commercial infrastructure and sales networks and the financial stability of companies in which they operate, allowing them considerable advantage over individuals acting as sole proprietors (Pinchot, 1985). Later, the need for a new orientation of the internal entrepreneurship or intrapreneurship change in strategic managerial thinking, which is recognized in the older, larger organizations (Pinchot, 1985). Such organizations are hierarchically organized and have a bureaucratic structure as an outcome from their historical performance and their size. Age of the organization and its size have a negative impact on the development of domestic entrepreneurship. Corporations that aim to create a favourable environment in support to an entrepreneurial mode, they need to invest in capable individuals within corporations. They need to change the mindset of employees and stimulate entrepreneurship within a corporate environment (Dollinger, 1995; Morris et al., 2008). The internal business potentials are also crucial for early beginners' enterprises in their market competition and survival (Drucker, 2001).

Intrapreneurs are persons who are willing to take a risk and responsibility for own decisions in the case of failures, and persons with influence and prestige in the organization, who know how to use the informal relationships within the company. Their goal is not only the development of new technologies and products, but also the best use of all other support mechanisms available within the company in order to increase market competition. All these are doing with the one goal, to penetrate and succeed with innovation in market competition (Duncan *et al.*, 1988).

Intrapreneurship, market competition and company performance

Modern companies need intrapreneurship as a source of innovation, which in turn leads to better management of markets and thus more efficient company performance in market competition. The company's success has also association with innovators and creative individuals. This also depends on individuals who have an entrepreneurial approach and ability to implement a good idea into a real product or service, even if they are employed in large organizations. Without widespread distribution of entrepreneurial energy, without a number of individuals or groups who are able to realize ideas and innovation, many new products would have never occurred to the consumers. Yet, businesses without such persons would get stuck in place (Pinchot, 2002).

Jay (1996) described two types of managers that are needed in the contemporary organized company: yogis and commissioners. The yogis have a vision and are creative, but they lack to keep order. The commissioners do not have vision, but they achieve objectives and accurately perform their tasks. Both personal characteristics are rarely integrated in a single person. The idea of intrapreneur promises solution of this paradox between order and innovation.

Two main problems are related to providing incentives for promotion and maintaining of intrapreneurship within the corporations in competitive markets: question of strategy and tactical questions (Duncan *et al.*, 1988). Among strategic questions, there are necessary measures that directors and other top managers should very often publicly stress the importance of innovations for company, creativity and innovation inside the company. This should have priority due to concrete and symbolic reasons, innovativeness should be supported by awards and bonuses, and top management should recognize that creative employees are motivated by ethical creativity and ethical competition. As a tactical question is how to remunerate intrapreneurs in competitive market environment.

Methodology and data

The purpose of the research is to investigate to what extent the surveyed companies relied to internal business potentials available within the company as a way for market competition to increase company's efficiency and success. The surveys with a written questionnaire covered seventeen companies of which completed answers to a written questionnaire were returned by fifteen companies. The conducted surveys focused on determination of the implementation of intrapreneurship in the surveyed enterprises and how its accelerated internal business processes in order to affect the better business results in competitive markets. The structure of the questionnaire follows the thematic strands focusing on the key issues faced by the businesses in the introduction and implementation of intrapreneurship:

- To what extent issues of intrapreneurship are known to the company's management, and if known, to what extent it is introduced and implemented in the business processes?
- To what extent intrapreneurship has affected the company's business operation?
- To what extent utilization of internal business potentials has affected the company's efficiency in competitive markets?

Following from these research questions, we set the following three hypotheses (H):

H1: Incentives for introduction of intrapreneurial activities are higher in companies in which management is aware of the importance of intrapreneurship.

Consequently, we expect a positive correlation between intrapreneurship activities and management knowledge of intrapreneurship.

H2: Active development of innovation culture in the company is positively associated with introduction of intrapreneurial activities in the company.

Again, a positive correlation is expected.

H3: Companies with more developed intrapreneurial activities achieve higher gross value-added per employee than companies with less developed intrapreneurial activities in competitive markets.

The unique in-depth surveys were used to obtain data and to test the set hypotheses. Advantages of the method used are mostly in its anonymity, relatively low costs for data collection and opportunities for comparative analysis of performances between the analysed companies. The sample of seventeen surveyed companies was selected primarily on the basis of their size and ability to obtain all relevant answers regarding to their internal business operations. Two respondents were selected in each of the surveyed companies in order to obtain a realistic picture of the internal corporate operations. Out of the seventeen companies involved, the answers were obtained from the fifteen ones.

The respondents in the surveyed companies were employed primarily in senior managers' positions such as managers of individual business units within the company system, while the administration and their professional staffs were not included in the sampling procedure as their answers would be less relevant for our analysis. The surveyed companies were selected primarily on the basis of their minimum size, which allows internal business operations. The surveyed companies were selected from different economic activities, which covered trade, other service activities and manufacturing production activities.

As a sample limitation, it is not stratified on all population of large companies in Slovenia. In terms of achieved average gross value-added per employee, it is biased in direction of more efficient companies, in which intrapreneurship processes are not a new phenomena as they are in a high degree already used. While this sample limitation and relatively a small sample size are limitation for making general conclusions for all Slovenian population of companies, the results are indeed useful for understanding the phenomena of intrapreneurship in the studied companies and its role for company's market competition and company efficiency in newly emerging market economies.

Among the surveyed companies, 46% of businesses belonged to the group of companies with over one thousand employees per company, 27% of companies with five hundred to one thousand employees, and 27% of companies where the number of employees ranged from two-hundred-and-fifty to five-hundred. Total employment in the surveyed companies was 30,124 employees, which means on average 2,008 employees per the surveyed company. In the comparison with the number of employees in the Slovenian companies in 2008, this means 4.9% share, while 13.5% share among all employees in the Slovenian companies with more than 250 employees.

Among the surveyed companies by main economic activities, 27% were in services, 53% were in manufacturing and 20% in trade activities. The surveyed fifteen companies represented 4.6% of total population of the Slovenian companies with more than 250 employees (IPMMP, 2008). By gross value-added per a company, the surveyed companies (37,218 euros) exceed the Slovenian average by 95%: 27% of the surveyed companies were below the Slovenian average, 27% of the surveyed companies were close to the Slovenian average, and 46% of the surveyed companies were above the average for the Slovenian companies. The surveyed companies generated 37% of net revenues from sales of goods and services in the domestic market and 63% in the foreign markets (PASEF, 2008).

Analysis of intrapreneurship in the surveyed companies

Knowledge of internal businesses

The analysis of the frequency distribution of the encounters with the intrapreneurship shows that 59% of the respondents occasionally faced with intrapreneurship. This result suggests the relatively non-intensive use of internal business operations. The degree of linear correlation between the degree of implementation of internal business processes and internal rate of encounters with entrepreneurship is 0.96 indicating a strong linear dependence between the variables (Table 1). The high value of the correlation coefficient indicates a strong linear relationship between the level of respondents encountering intrapreneurship and the level of intrapreneurship process, which is logically associated with the fact of the presence of knowledge of the conditions of the internal business planning and implementation of internal business processes.

TABLE 1: THE CORRELATION BETWEEN THE PASSING OF ITS AND ITS PROCESSES (LIKERT SCALE 1-5)

Question:	never	rearyly	occasionally	frequently	mode
The frequency of encounters with ITS	2	2	18	8	2
Implementation of processes necessary for the operation of ITS	2	1	22	3	2
Correlation coefficient					0.96

Source: Surveys of 30 respondents in the fifteen companies in Slovenia, 2009 - Note: ITS – Intrapreneurship

Implementation of internal business processes

The assembly, which refers to internal business processes, gives an insight into the relationships within the company. This should enable the development of innovative processes that support the corporate hierarchy in a search for competitive market positions. Table 2 presents the availability of necessary resources and use the business plan, which demonstrates the maturity of the internal entrepreneur venture.

TABLE 2: ANALYSIS OF RESPONSES REGARDING INTERNAL BUSINESS PROCESSES (LIKERT SCALE 1-5)

Question:	Average value	Median	Mode	Standard Deviation
Development of innovation processes	3.6	4	4	0.96
Support in the corporate hierarchy	3.7	4	4	0.92
Means for the realization of the project	3.2	3	3	1.06
Assistance of external partners	3.5	3.5	4	0.97
Application of business plan	3.7	3	4	1.02
Average	3.5	3.5	4	0.99

Source: Surveys of 30 respondents in the fifteen companies in Slovenia, 2009

The analysis of the quality of relationships that enable the development of internal business processes indicates that these relationships were sufficient to allow for internal business operations. This finding was confirmed with the most common answer 4 "often allow" (Likert scale 1-5). The level of support in the corporate hierarchy, which allows the realization of the project, was found at a satisfactory level because 40% of respondents believed that they had the adequate support that was often available, while 30% of them had occasionally support. The results of the use of a business plan for an appropriate application suggest that 60% of the respondents believed on their often used in a practice, of which 20% were required to be used. The most common response was concentrated at 4 (frequently, Likert scale 1-5).

The introduction of intrapreneurship

The assembly, which refers to the introduction of intrapreneurship in the Slovenian companies, covered the fields of corporate culture, innovation goals, guiding entrepreneurs to understand their role and training of internal entrepreneurs to realize the business opportunities in competitive markets (Table 3).

TABLE 3: ANALYSIS OF RESPONSES REGARDING INTRODUCTION OF INTRAPRENEURSHIP (LIKERT SCALE 1-5)

Question:	Average value	Median	Mode	Standard Deviation
Defining corporate culture and support systems	3.6	4	4	0.84
Defined objectives of innovation	3.7	4	4	0.76
Recognition system for ITS	2.4	3	2	0.94
Understanding the importance of ITS	2.8	3	3	0.73
Training for business opportunities	2.6	3	3	0.80
Average	3.0	3.4	3	0.82

Source: Surveys of 30 respondents in the fifteen companies in Slovenia, 2009 - Note: ITS - Intrapreneurship

The analysis of corporate culture and support systems that do not hinder innovation has shown that 47% of the respondents believed that the companies in their corporate culture were defined only partly and 27% were clearly defined. The aims of innovation in 35% of the surveyed companies were clearly defined, while 54% were only partially defined. The surveyed companies believed on a fairly importance of internally guided entrepreneurs in understanding the importance of intrapreneurship and its rules. The average rate of introduction of intrapreneurship in the surveyed companies was concentrated at 3.4 (Likert scale 1-5), indicating insufficient importance of intrapreneurship in the surveyed companies.

Relationship between the employees' attitudes and internal corporate programs

The analysis of the relationship between the employees' attitudes and internal corporate programs provides the evidence on the extent to which managers emphasized the importance of innovation, creativity and innovation in the enterprise on one hand, and the relationship between the employees attitudes and volunteer assistance on the other with tasks and projects that helped to increase market competition and company efficiency

The survey results suggest on the appropriate situation in the surveyed companies: 60% of the respondents answered that managers in their companies often emphasized the importance of innovation for the company, and in 27% of the surveyed company's innovation was a continuous process. The appropriateness of the individual awards for their innovation was only in 15% considered as the appropriate reward, while the others believed that the material and moral incentives in their companies were not enough and too little to sufficiently promote innovative practices of creative individuals. The average score was 3.4 (Likert scale 1-5). In short, the results of the relationship between the employees attitudes and internal corporate programs were ranged with the average score value of 3.6 (Likert scale 1-5) and the most common rating was 4.

Intrapreneurship, market competition and company efficiency

The impact of intrapreneurship on the business performance of the surveyed companies and the influence of utilization of internal business potentials on the competitive market position of these companies are analysed to determine the extent to which corporate intrapreneurship affect business performance and to evaluate the impact of utilization of internal business potentials on a competitive market position.

Impact of intrapreneurship on internal business operations

Set of five questions relate to the identification of the impact of intrapreneurship on internal business operations of the surveyed companies (Table 4). The analysis of the responses provides the insights into the extent to which business-oriented individuals and groups of individuals influenced the success of the company through the influence of internal corporate focus on increasing sales and the importance of internal corporate organization for business success in competitive markets.

TABLE 4: ANALYSIS OF RESPONSES REGARDING INFLUENCE OF ITS ON THE BUSINESS
(LIKERT SCALE 1-5)

Questions:	Mean	Median	Mode	Standard Deviation
ITS as a source of innovation	3.8	4	4	0.85
ITS-consumer-products	3.9	4	4	0.90
ITS-sales increase	3.5	4	4	0.90
ITS and success in the future	4.0	4	4	0.96
Average	3.8	4	4	0.90

Source: Surveys of 30 respondents in the fifteen companies in Slovenia, 2009 - Note: ITS - Intrapreneurship

The analysis of the impact of entrepreneurial individuals and groups of individuals on the company's success confirmed that 24% of the respondents believed that business-oriented individuals had a direct impact on the company's

success contributing to new products and services, which would not be possible without them. Yet, 50% of the respondents believed that the intrapreneurs had a significant impact on the success of their businesses.

It is interesting to note that although only 20% of the survey companies conducted intensive internal business processes, the results suggest that in 74% of the surveyed companies employees considered that intrapreneurship had a significant impact on the number of new products and services. The average score of total responses to the question lies at the value of 3.9 (Likert scale 1-5). The analysis of the impact of intrapreneurial orientation on the increased domestic sales confirmed that only 10% of the respondents believed that their internal business operation had a very significant impact on increasing sales and consequently their business results. On a significant impact of intrapreneurship on sales growth believed 50% of the surveyed companies, while as important by 23%. How important was the internal corporate structure for the surveyed companies to operate successfully in the future in competitive markets, this is confirmed by the concentration of the results at an average value of 4 (Likert scale 1-5). The majority of the respondents believed that the internal corporate structure was one of the basic conditions that the surveyed companies achieved successful performances in domestic and foreign markets.

Market competition and unused internal business potentials

The analysis of the responses to a set of questions related to the impact of utilization of internal business potentials assessed the extent to which the internal business potentials were unused. The results suggest that 73% of the respondents considered that a better internal corporate structure affected the market competition of the companies on both domestic and foreign markets. Yet, 23% of the surveyed companies believed that the impact of intrapreneurship on the company's competitive position was of the great importance at the average value of 3.9 (Likert scale 1-5).

In the final part of the questionnaire the respondents were asked the question to what extent they believed that their companies were in the inner untapped intrapreneurial potential. The answers confirmed that the surveyed companies had on average 54% of unused internal business potentials. This means that the optimal utilization of their results can be improved significantly.

Most of the surveyed companies (57%) believed that their internal business potentials were only partially utilised. Therefore, better internal corporate structure would contribute to better performance and market competition of the surveyed companies.

Statistical analysis of causalities and hypotheses testing

The statistical analysis is conducted on the basis of the survey data. Our focus is on three associations to test the set three hypotheses: between knowledge of intrapreneurship and introduction intrapreneurship in the analysed company; between impacts of intrapreneurship on company business performance and implementation of intrapreneurial processes; and between implementation of intrapreneurial processes and knowledge of intrapreneurship and gross value-added per employee that the company achieved in market competition. The results are biased to the sample selection and the conduction of the questionnaire used for the surveys. However, we are aware of this shortcoming in the interpretation of the results.

Dependence between the internal knowledge of intrapreneurship and the introduction of intrapreneurship

Linear association between the internal knowledge of intrapreneurship and the introduction of intrapreneurship in the surveyed companies is investigated by the correlation analysis. The results of the analysis confirmed the set H1 on the interdependence of the variables studied. Both curves of the respondents responses are situated in the range of values from 1.3 to 4.0 (Likert scale 1-5). The degree of linear correlation between the studied variables is 0.75 suggesting the strong presence of the knowledge of intrapreneurship and the introduction of intrapreneurship. This holds for 56.2% of the surveyed companies employing the linear dependence: $0.75^2 = 0.562$.

Dependence between the impact of intrapreneurship in the business and the implementation of internal business processes

The results presents responses regarding the impact of intrapreneurship on the internal business operations and the introduction of the intrapreneurship. Both curves of the respondents' responses fall in the range of values between 2.2

and 4.7 (Likert scale 1-5). The degree of the linear correlation between the studied variables is 0.59. This confirms the set H2 on the presence of the knowledge of intrapreneurship and the introduction of intrapreneurship in the surveyed companies. The linear dependence is of 34.8%.

Dependence between the degree of implementation of internal business processes and knowledge of intrapreneurship, and the gross value-added per employee in the surveyed companies in market competition

The degree of the linear correlation between the average value of responses to a set of questions about the level of knowledge of the intrapreneurship within the company and gross value-added per employee in the company amounted to 0.44. This implies a 19.6% linear dependence between the pair of variables. The correlation coefficient between the average value of responses to a set of questions about the level of implementation of internal business processes and gross value-added per employee amounted to 0.27, indicating a 7.3% linear dependence. Therefore, the correlation coefficients between the pairs of variables are low. This does not confirm the set H3 on the strong relation between intrapreneurship and the company efficiency in market competition.

Reliability of the responses

The reliability of the responses in estimating the dependencies between the variables is tested by employing the chi-square (χ^2) test in order to prove the set of assumptions used. Developing an innovation culture in companies, intrapreneurship in businesses and the degree of utilization of internal business potentials were those variables that significantly affected the adoption rates of intrapreneurship in the surveyed companies. Variables such as knowledge of intrapreneurship, intrapreneurship process and attitude of employees to internal corporate programs do not show a statistically significant effect on the introduction of intrapreneurship in the surveyed companies.

The results suggest that the impact of independent variables on the adoption rates of intrapreneurship is only partly confirmed. Only some of independent variables such as developing of innovation culture have impacts on the internal business operations and the level of untapped business potentials has affected the decision in the surveyed companies up to the stage of the introduction of intrapreneurship.

Managerial, policy and research implications

The comparisons of the empirical results between the degree of the implementation of the internal business processes and the achieved value-added per employee show rather small 7.3% linear association, but more in-depth investigation confirmed that the companies with the higher degree of the implementation of the internal business process or the intrapreneurship achieved higher value-added per employee. This implies an importance of the intrapreneurship in corporate organization for company's performance in competitive market environments.

Employees of the surveyed companies were sufficiently aware of the internal corporate stance as an essential element of a new organization allowing to deals with global market competition. Long-term strategic and policy orientation of management, highlighting the importance of innovation with encouraging creativity were the basis for successful internal entrepreneurial orientation of the surveyed companies. The empirical results suggested that the degree of emphasis on the importance of innovation by management was at a satisfactory level, indicating that the surveyed companies were aware of the importance of innovation. However, this has not played yet adequate importance. The level of creativity and innovation within the company suggested a slightly weaker result, indicating both the lack of long-term orientation of management that would allow the creation of appropriate conditions for the development of innovation culture. One of the major advantages over conventional internal business enterprise was an individual mobilization of existing resources, which should be available to an internal entrepreneur. The results confirmed that the surveyed companies perceived availability of resources, as satisfactory, while at the same time confirmed the lack of detectable and established, quick and informal ways of obtaining and using available resources of the company. Very low utilization rates from internal business potentials confirmed that the majority of the surveyed companies believed that their internal business potentials were only partially used, or ill-used, suggesting the internal potential source of untapped business opportunities and its potential as one of possible ways to achieve advantages in market competition.

By examining the forms of intrapreneurship in the surveyed companies, the empirical results provide a useful information tool for research and practice of a degree of recognition, establishment and implementation of internal business processes. The sample was biased towards more efficient Slovenian large companies by the gross value-added per employee. Yet, the studied internal business processes were not a new phenomenon in the surveyed companies. Among the limitations are the sampling procedure and a relatively small sample size. Although the empirical results do not allow making generalisation of the surveyed companies to the whole Slovenian company population, the results are to a greater extent relevant for the large sized Slovenian companies.

Conclusion

The empirical results suggest that corporate intrapreneurship in the surveyed companies was not a new phenomenon, but on the contrary, in most of the surveyed companies they were familiar by intrapreneurial activities and their benefits have already successfully exploited. To summarize, the intrapreneurship was found important as in the surveyed companies the role of the internal business operation played importance in implementation activities. A comparison of detection of intrapreneurship in the surveyed companies with the most successfully organized domestic businesses as global companies confirmed that the surveyed companies still placed greater emphasis on the existing product and services than on new product development, marketing and distribution activities in market competition. The change of business culture with at least equal emphasis on developing new products and services and innovative marketing approaches would have significantly greater impacts on their market competition by increasing sales. The greater utilisation of untapped, internal business opportunities of the Slovenian companies, would largely contribute to better performances in market competition by better results in the domestic markets and more effective penetration in the foreign markets. Under-utilization of internal business potentials suggests a lack of long-term strategies and managerial policies and practices with insufficient market targeting in more competitive market environment in order to exploit the companies advantages that can be offered by intrapreneurship. Long-term orientation of management with the companies' abilities to define the mission and vision-oriented businesses with sufficient emphasis on innovation, entrepreneurship and intrapreneurship developments are the ways allowing creating the appropriate corporate culture for increasingly competitive market environment. An intrapreneurial culture is necessary to be created within the existing companies as a necessary part of the innovation process to contribute to the survival of the existing companies in market competition and potentials for growth of new companies in rapidly changing markets.

References

- [1] Antončič, B. and Hisrich, R.D. (2003). Clarifying the intrapreneurship concept. *Journal of Small Business and Enterprise Development*, 10 (1), 7-24.
- [2] Audretsch, D.B. and Keilbach, C.M. (2004). Entrepreneurship and regional growth: an evolutionary interpretation. *Journal of Evolutionary Economics*, 14 (5), 605-16.
- [3] Audretsch, D.B., Keilbach, M.C. and Lehmann, E.E. (2006). *Entrepreneurship and economic growth*. Oxford: Oxford University Press.
- [4] Bailey, E.J. (1984). Intrapreneurship - Source of High Growth Startups or Passing Fad?, in *Frontiers of Entrepreneurship Research*. Wellesley, MA: Center for Entrepreneurial Studies, Babson College.
- [5] Birch, D.L. (1993). Dynamic Entrepreneurship and Job Creation: Lessons from the US Experience for Central and Eastern Europe. The Hague, in Abell, D.F. and Koellermeier, T, *Dynamic Entrepreneurship in Central and Eastern Europe*, 13-23.
- [6] Dollinger, M.J. (1995). *Intrapreneurship and Franchising vs. Entrepreneurship*. Boston: Irwin.
- [7] Drucker, F.P. (2001). *Innovation and Entrepreneurship*. Oxford: Butterworth-Heinemann.
- [8] Duncan, W.J., Ginter, P.M., Rucks, A.C. and Jacobs, T.D. (1988). Intrapreneuring and the reinvention of the corporation. *Business Horizons*, 31 (3), 16-21.
- [9] Garvin, D.A. (2002). *A note on corporate venturing and new business creation*. Boston: Harvard Business School Publishing.
- [10] Hisrich, R.D. (2009). *International entrepreneurship: starting, developing, and managing a global venture*. 1st ed. Los Angeles: Sage Publications.
- [11] IPMMP (2008). Institute for Entrepreneurship and Management. Maribor: Faculty of Economics and Business.
- [12] Jay, A. (1996). *Management & Machiavelli: A Prescription for Success in Your Business*. Prentice Hall Press.
- [13] Koellinger, P.D. and Thurik, R. (2012). Entrepreneurship and the Business Cycle. *Review of Economics and Statistics*, 94 (4), 1143-1156.
- [14] Kuratko, D.F., Covin, J.C. and Garrett, R.P. (2009). Corporate venturing: Insights from actual performance. *Business Horizons*, 52 (5), 459-467.
- [15] Morris, M., Kuratko, D. and Covin, J. (2008). *Corporate Entrepreneurship and Innovation*. Mason: Thomson Sth-Western.
- [16] Parker, S.C. (2011). Intrapreneurship or entrepreneurship?. *Journal of Business Venturing*, 26 (1), 19-34.
- [17] PASEF (2008). Data analytical centre. Ljubljana: Faculty of Economics.
- [18] Pinchot, G. III. (1985). *Intrapreneuring*. New York: Harper & Row Publishers.
- [19] Pinchot, G. and Pinchot, E. (2002). *Free Intraprise*. Available at: <http://company.pinchot.com/MainPages/BooksArticles/InnovationIntrapreneuring/FreeIntraprise.html> (accessed 12 march 2004).
- [20] Schumpeter, J. (1951). *The theory of economic development*. Cambridge: Harvard University Press.
- [21] Schollhammer, H. (1981). *The efficacy of internal corporate entrepreneurship strategies*. In Vesper K H ed., *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College.
- [22] Stevenson, H.J. (1990). A paradigm of entrepreneurship: entrepreneurial management. *Strategic Management Journal*, 11 (1), 17-27.
- [23] Timmons, A.J. and Spinelli, S. (2006). *New venture creation: Entrepreneurship for the 21st century*. 7th ed. Boston, MA: Irwin McGraw-Hill.
- [24] Zahra, S.A., Filatotchev, I. and Wright, M. (2009). How do threshold firms sustain corporate entrepreneurship? The role of boards and absorptive capacity. *Journal of Business Venturing*, 24 (3), 248-260.

Accelerating entrepreneurship via intensive learning programs

Mirella Migliaccio, migliaccio@unisannio.it

Francesca Rivetti, francesca.rivetti@unisannio.it

*University of Sannio, Department of Law, Economics, Management, and Quantitative Methods (DEMM),
Benevento, Italy*

Accelerating entrepreneurship via intensive learning programs

Abstract

In the last decade a new instrument aimed at stimulating entrepreneurship has emerged: the accelerator program. It addresses the need to “accelerate” entrepreneurship by conducting a very intensive program, starting with the selection of particularly promising ideas and aimed at defining business projects attractive to investors. A very interesting, yet barely explored aspect, concerns the learning mechanisms within these programs. On the basis of the literature on entrepreneurial learning, and knowledge management, this paper aims at identifying the learning mechanisms and the knowledge roles within them. A longitudinal case study concerning an accelerator program operating in Italy since 2012 is conducted. The empirical analysis reveals a stratification of the mechanisms of learning, supported by different knowledge roles throughout the program. Although the limitations of the study, the results may provide a basis for future research.

Key words: accelerator programs, entrepreneurial learning, start-up, knowledge roles, learning mechanisms

1. Introduction

In the last decade the use of accelerator programs, which represent one of the most advanced tools to support and promote entrepreneurship, has quickly established. Their increasing use has not been accompanied by a significant attention from scholars. Only recently they are beginning to examine the accelerator, even using the lens of learning (e.g. Migliaccio, Rivetti, & Capasso, 2014).

Starting from the most recent studies on venture accelerators, based on a theoretical background mainly concerning learning and especially entrepreneurial learning, the objective of this paper is to investigate the accelerator programs intended as intensive programs of learning. The research questions are the following: What mechanisms of learning are found within acceleration programs? What roles of knowledge, directed to trigger and favor the learning mechanisms above, are found in the programs?

The paper is organized as follows: the second section examines the accelerator programs from the perspective of project management; the third section considers the accelerator programs using the lens of learning, with a particular focus on the dynamics of learning and the roles of knowledge; the fourth section briefly reviews the methodological path; the fifth section is dedicated to the case of study; the sixth section presents the conclusions, limitations of the study and directions for further research.

2. Acceleration programs and business projects

Venture creation is a dynamic process that can be examined by considering the behavior of individuals that contribute to it (Garner, 1985; Gartner & Carter, 2003). As pointed out by Liao and Welsch (2008), different patterns of activity, which can be carried out at different times and in a different order, contribute to venture creation. This experimental process, which involves dynamic experiential learning (Kolb, 1984), is conducted through trial and error.

Over the years various instruments to promote and support entrepreneurship have arisen, first of all incubators (Hughes et al. 2011), designed to create an environment able to stimulate and favor the entrepreneurial process and to provide services in support of it. Incubators are business support process, designed to support the development of startups by providing "services and resources tailored to young firms" (Isabelle, 2013; NBIA, 2014). More recently, programs aimed at accelerating the entrepreneurial process in the short period have been designed. Miller & Bound (2011, p. 3) point out that an acceleration program is characterized by “an application process that is open to all, yet highly competitive; provision of pre-seed investment, usually in exchange for equity; a focus on small teams not individual founders; time-limited support comprising programmed events and intensive

mentoring; cohorts or ‘classes’ of startups rather than individual companies”. Although these elements may occur with different intensity, we can consider them common to all acceleration programs.

In this paper, starting from what stated by Halt et al. (2014), we consider the definition of accelerator programs provided by Migliaccio et al. (2014). In particular, acceleration programs are considered instrumental “to “accelerate” entrepreneurship in a very limited period of time” e “to this end, it provides not only financial resources, but also services instrumental to the formation of an organizational knowledge base adequate to contribute to the success of the nascent firm and to the definition of a project that is attractive to investors (Migliaccio et al., 2014, p. 3).

The accelerator, according to its specific characteristics, contributes to the entrepreneurial process, whose output can be a new firm (Gartner & Carter 2003). The emphasis on the management of multiple business projects leads us to apply some concepts of project management. The placement of the acceleration program within the project management approach seems particularly appropriate to analyze the dynamics of learning within and between projects. We believe that the program of acceleration can be interpreted, albeit with the necessary distinctions, according what stated by Archibald (1992), who defines the program as an initiative taking place in the long term, characterized by the involvement of multiple projects. The main element of differentiation, with respect to this definition, relates to the time. Accelerator programs are "time limited support" (Miller & Bound, 2011), generally of short duration, being aimed at accelerating the process of creation/discovery of entrepreneurial opportunities (Alvarez & Barney, 2007, 2010), interpreted as a learning process. Instead, element of strong similarity is the multiplicity of projects included in the program. In fact, among the aspects common to accelerator programs highlighted by Miller & Bound (2011), particular emphasis concerns the focus on classes of projects rather than on single projects.

3. Learning within acceleration programs

The entrepreneurial process is a learning process (Corbett, 2005). It is not only about individual learning, but also collective learning. Indeed, its effectiveness is also related to access to multiple sources of external knowledge and therefore to the transfer of knowledge which fuels the knowledge base of the nascent firm. For the purposes of entrepreneurial learning are important not only psychological characteristics and skills of the individual, but also the creation of an environment that encourages it (O'Shea & Buckley, 2010). An accelerator program helps to create virtuous learning contexts based on the positive relationship knowledge - trust, which feed on each other, and become ecosystems (Miller & Bound 2011). During the program, the process of entrepreneurial learning is accelerated (Miller & Bound, 2011). To this end, as highlighted by Migliaccio et al. (2014), “are provided, among others, services instrumental to the formation of a knowledge base of the nascent firm adequate to favor the success of the initiative”, especially through didactic modules, completion of the team and networking.

The accelerator favors entrepreneurship by performing the functions of educator, connector and validator (The World Bank, 2011), which can be considered in a knowledge-based view, in order to appreciate their contribution to the knowledge base of the nascent firm. The function of “educator” is especially instrumental to the promotion of experiential learning; the function of “connector” favors learning by interacting; the function of “validator” “is mainly due to the mentorship and to the creation of an environment favoring the emergence of start-ups” (Migliaccio et al., 2014).

The learning peculiarities within the programs of acceleration are closely related to the characteristics of the organization that manages them and the specific objective to be achieved. With regard to the first aspect, upstream of the acceleration program often there is an organization that has a stable core and leverages an extensive network of partners, whose composition of which is subject to variations from year to year. This certainly impacts on accessible knowledge. In addition, for the effectiveness of knowledge transfer, it is necessary to develop learning mechanisms independent from the composition of the participants and to ensure appropriate roles of knowledge. On the other hand, as shown in project management literature, these requirements are found in all projects, complex works that are characterized by high novelty, whose realization involves different parties, who often work for the first time together. The objective can be identified by considering the point of view of the organization or that of

the entrepreneurial teams participating to the program. The team aims to overcome the validation phase, becoming graduated and then making the nascent firm attractive to investors. It should be noted that not all the teams arrive at the graduation and even fewer are funded by investors. In addition, still remains, albeit to a lesser extent, the risk of failure of startups (Miller & Bound, 2011). In case of failure, however, knowledge resulting from the process of entrepreneurial learning can be used in other entrepreneurial initiatives. As for the accelerator, the organization behind the program, the main objective is the return on investments. Moreover, the program offers benefits in terms of learning also for the accelerator, and new knowledge can be reused in new programs.

Learning takes place through mechanisms stressing the collective dimension and is facilitated by multiple roles of knowledge. Regarding the mechanisms, experiential learning, the individual and team level (Kayes, Kayes, & Kolb, 2005) is combined with the non-experiential learning (Zollo & Winter, 2002), which is achieved through the articulation and the codification of knowledge, mechanisms "that go beyond the semi-automatic processes of stimulus-response and the accumulation of experience" (Zollo & Winter, 2002, p. 341).

The entrepreneurial team is the main *locus* of entrepreneurial learning. The accelerator creates the conditions for the team evolve into a community of practice (Wenger, 2000); it also ensures the conditions favoring mechanisms of learning, supported by specific roles of knowledge (Davenport & Prusak, 2000). Scholars propose different knowledge roles, each of which supports specific learning mechanisms (e.g., knowledge gatekeepers, facilitators, etc.).

One of the most important figures for the transfer of knowledge, mostly abstract, it is the teacher (Drucker, 1999) (often a university professor or a professional). As regards the other roles of knowledge, with reference to the knowledge facilitator, in this paper we consider the definition of Roth & Styhre (2002, p. 1), which identify him as an individual who helps a community of practice (for instance a new product development team) to codify, decodify, articulate, express, and tell stories about their skills, experiences, know-how, capabilities, in brief their knowledge of certain areas", laying the basis for overcoming the "knowing-doing gap" (Roth & Styhre, 2002), thus promoting the launch of the entrepreneurial initiative. Instead, the knowledge gatekeeper is identified as "an individual who acts as a knowledge interface" (Cranefield & Yoong, 2006, p. 233) between the organization and external sources of knowledge which are found in his network.

4. Methodology

To address the research questions, we decided to conduct a longitudinal case study (Yin, 1994), referring to an acceleration program operating in Italy since 2012, with reference to the period 2012-2014. The program was chosen since it seemed particularly appropriate with respect to the phenomenon under investigation. Different research methods were taken into account, and in particular (Woodside, 2010): semi-structured interviews, analysis of documents and non-participant observation.

5. The case of study

SeedLab is an acceleration program established in 2012 and currently promoted by TTVenture, closed-end fund with headquarters in Milan. It focuses on the pre-seed stage of entrepreneurial projects focused on different areas (web, biotech, new materials, cleantech, life-science, agrofood), with a particular emphasis on technology transfer, which have in common the possibility of exploitation of the technology.

The program is characterized by a careful initial selection of entrepreneurial projects and is designed to validate them. At least in the early stages the program is characterized by a remarkable fluidity of the team, which are then stabilized, and a climate favoring the creation of relationships with external subjects, in particular industry experts and potential partners.

In detail, it is possible to identify two modules (one didactic and the other of incubation), following the initial selection. The didactic module, which aims to provide the basis of enterprise management, is designed also to encourage interaction with teachers and among aspiring entrepreneurs. The incubation module is designed in order to define in detail the project in a climate of interaction and cooperation with the mentors and external parties.

The program is completed with a pitch day, during which the projects are presented to investors, institutional or not, who evaluate the opportunity to invest in them. Among graduated teams, then, are selected those whose projects seem of considerable interest, in order to spend some months in Silicon Valley to improve their entrepreneurial projects.

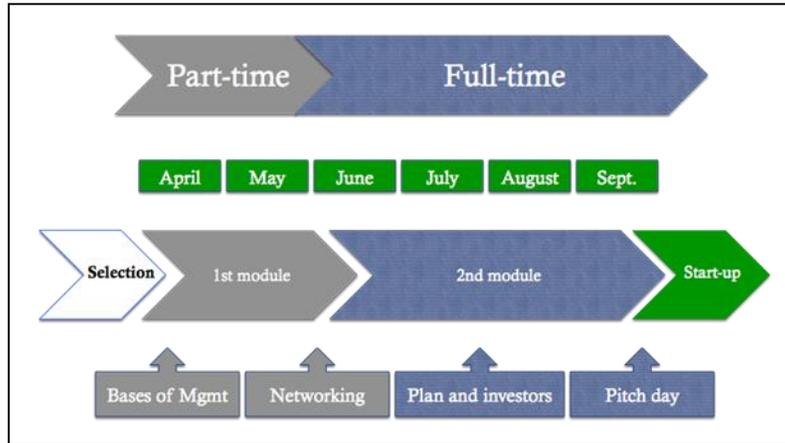


FIG. 1 THE SEEDLAB ACCELERATION PROGRAM (SOURCE: SEEDLAB, 2013)

With regard to the first research question, considering the learning mechanisms defined by Zollo and Winter (2002) and applied to projects by Prencipe and Tell (2001), it is possible to identify the activities that, in the SeedLab program, tend to favor them (Table 1).

TABLE 1: LEARNING ACTIVITIES AND MECHANISMS WITHIN THE ACCELERATION PROGRAM

Learning activities	(Prevalent) learning mechanism
Training on the job, incubation activities	Experiential learning
Networking	Knowledge articulation
Planning	Knowledge codification

Experiential learning is promoted especially by training on the job, through which teams are assisted by mentors in carrying out activities related to the definition of the project, and by incubation activities, instrumental to "address open issues of the project to define an effective and credible business model" (Migliaccio et al., 2014). Knowledge articulation is accomplished through interaction within the team, with the mentor, the other teams and with others involved in the acceleration program; in fact, even the didactic module is designed in such a way as to encourage not only lectures, but also networking among program participants and between them and the teacher. Finally, knowledge codification takes place especially during incubation, when the teams are dedicated to planning.

Considering the practice-oriented categories of knowledge (Savage, 1996) most commonly used in studies on entrepreneurial learning (Williams Middleton & Donnellon, 2014), we can examine how the program favors their acquisition (Table 2).

TABLE 2: LEARNING ACTIVITIES AND KNOWLEDGE CATEGORIES

Learning activities	Knowledge categories
Lectures, training on the job	Know what
Lectures, training on the job, pitch	Know why
Lectures, training on the job, incubation activities	Know how

Know what is vehicled mainly by teaching, placed mostly in the first part of the program, and by training on the job, through the mentor. The team acquires the know-why even during the pitch day. Finally, know-how is developed thanks to lectures, training on the job and the various activities implemented during incubation, instrumental to the development of plans. In addition, the three categories of knowledge considered here, and especially the know-how, can be developed through experience (Kolb, 1984).

Turning to the second research question, it can be noted that the acceleration program involves different actors performing knowledge roles. Teachers, active especially in the first module, serve as educators, being responsible for the transmission of knowledge to individuals belonging to entrepreneurial teams. The teacher acts primarily on the transfer of abstract knowledge, that is entrepreneurial know-what (Gartner & Carter, 2003).

Mentors tend to perform more than one knowledge role. First, they are "knowledge gatekeeper" (Cranefield & Yoong, 2006), since they relate the team with external sources of knowledge that are part of their web of relations; in this way, while not triggering a particular mechanism, they create the conditions so that the team learns from external sources. In addition, they act as "knowledge facilitators"; in fact, assisting the team in translating its ideas in the project, they ensure the articulation, sharing and proper application of knowledge transmitted by the teacher and pre-existing knowledge. In this way, they operate downstream of the transfer process, favoring the overcoming of "the knowing-doing gap" (Roth & Styhre, 2002, p. 1) by applying knowledge to the plans; therefore, they favor the articulation as well as the codification of knowledge. Even business students operate during the program as "knowledge facilitators", although, compared to the mentor, they have a different role, mainly oriented to the application of the acquired and pre-existing knowledge to the project.

6. Conclusion

Accelerator programs constitute a particularly effective instrument to support entrepreneurship. A very interesting aspect, barely explored by scholars, concerns the learning dynamics that are developed within these programs. In fact, beyond the aspects concerning the financial support and the validation of business ideas, it should be emphasized that accelerator programs are intensive programs of learning. Its functions of educator and a connector, highlighted by scholars along with that of validator (The World Bank, 2011), can be reconsidered in this perspective.

On the basis of the literature on entrepreneurial learning and knowledge management, this paper identifies the learning mechanisms and the knowledge roles directed to trigger and favor these mechanisms within the programs of acceleration. We have developed the empirical analysis with reference to SeedLab, an acceleration program operating in Italy since 2012. With regard to the first research question (What mechanisms of learning are found within acceleration programs?), the empirical analysis reveals a stratification of learning mechanisms throughout the program, although specific mechanisms prevail in specific phases. Turning to the second research question (What roles of knowledge, directed to trigger and favor the learning mechanisms above, are found in the programs?), it should be noted that different knowledge roles are employed in the context of the accelerator, some of them can be related to specific knowledge mechanisms. Some knowledge roles create the conditions for learning from external sources (mentors: knowledge gatekeepers), others act as educators (teachers), and still others favor the articulation and codification of knowledge (mentors and business students: knowledge facilitators).

The managerial implications of the paper are summarized below. Since the acceleration program is a program of entrepreneurial learning, in order to better carry out its function (effective and fast learning), it should create appropriate conditions relating to: identification, within the program, of activities instrumental in: ensuring that the teams accumulate experiential knowledge (e.g., through incubation activities), evolve into social learning systems

(Wenger, 2000), and interact with external parties, especially those included in the network of the program; presence of qualified figures who perform knowledge roles, designed to promote directly or indirectly the mechanisms of learning.

The main limitations of the paper can be found in the impossibility to generalize the results using the method employed. The results may, however, provide a basis on which to build future research.

References

- [1] Alvarez, S. A., & Barney, J. B. (2007). Discovery and Creation: Alternative Theories of Entrepreneurial Action. *Strategic Entrepreneurship Journal*, 1 (1-2), 11-26.
- [2] Alvarez, S. A., & Barney, J. B. (2010). Entrepreneurship and Epistemology: The Philosophical Underpinnings of the Study of Entrepreneurial Opportunities. *The Academy of Management Annals*, 4 (1), 557-583.
- [3] Archibald, R. D. (1992). *Managing High-Technology Programs and Projects* (2nd Edition). New York: John Wiley & Sons.
- [4] Corbett, A. C. (2005). Experiential Learning within the Process of Opportunity Identification and Exploitation. *Entrepreneurship Theory and Practice*, 29 (4), 473-491.
- [5] Cranefield, J., & Yoong, P. (2006). The role of Translation and Interpretation in Facilitating Inter-organisational Knowledge transfer. In *Proceedings of Knowledge management International Conference & Exhibition (KMICE) 2006* (pp. 232-239).
- [6] Davenport, T. H., & Prusak, L. (2000). *Working Knowledge: How Organizations Manage What They Know*. Harvard, MA: Harvard Business Press.
- [7] Drucker, P. F. (1999). Knowledge-Worker Productivity: The Biggest Challenge. *California Management Review*, 41 (2), 79-94.
- [8] Gartner, W. B. (1985). A Conceptual Framework for Describing the Phenomenon of New Venture Creation. *Academy of Management Review*, 10(4), 696-706.
- [9] Gartner, W. B., & Carter, N. M. (2003). Entrepreneurial Behavior and Firm Organizing Processes. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of Entrepreneurship Research* (195-221), Boston, MA: Kluwer Academic Publishers.
- [10] Halt Jr, G. B., Fesnak, R., Donch, J. C., & Stiles, A. R. (2014). Monetization Strategies for Startups, Incubators and Accelerators. In *Intellectual Property in Consumer Electronics, Software and Technology Startups* (pp. 199-208). Springer: New York.
- [11] Hughes, M., Morgan, R. E., Ireland, R. D., & Hughes, P. (2011). Network Behaviours, Social Capital, and Organisational Learning in High-Growth Entrepreneurial Firms. *International Journal of Entrepreneurship and Small Business*, 12 (3), 257-272.
- [12] Isabelle, D.A. (2013). Key Factors Affecting a Technology Entrepreneur's Choice of Incubator or Accelerator. *Technology Innovation Management Review*, February Issue: Platforms, Communities, and Business Ecosystems, 16-22.
- [13] Kayes, A. B., Kayes, D. C., & Kolb, D. A. (2005). Experiential Learning in Teams. *Simulation & Gaming*, 36 (3), 330-354.
- [14] Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.
- [15] Liao, J. J., & Welsch, H. (2008). Patterns of Venture Gestation Process: Exploring the Differences between Tech and Non-Tech Nascent Entrepreneurs. *The Journal of High Technology Management Research*, 19 (2), 103-113.
- [16] Migliaccio, M., Rivetti, F., & Capasso, A. (2014). The Role of Universities in Venture Accelerators: The Case of SeedLab. Paper presented at the Second University-Industry Interaction Conference, on the theme "Challenges and solutions for fostering entrepreneurial universities and collaborative innovation", Barcelona, Spain, April 23-25, 2014.
- [17] Miller, P., & Bound, K. (2011). The Startup Factories. The rise of Accelerator Programmes to Support New Technology Ventures. *NESTA discussion paper*: June 2011.
- [18] O'Shea, D., & Buckley, F. (2010). Modelling self-regulated learning strategies in early-stage entrepreneurs: the role of intentionality and interaction. *International Journal of Entrepreneurship and Small Business*, 10 (1), 83-107.
- [19] Prencipe, A., & Tell, F. (2001). Inter-Project Learning: Processes and Outcomes of Knowledge Codification in Project-Based Firms. *Research Policy*, 30 (9), 1373-1394.
- [19] Roth, J., & Styhre, A. (2002). Knowledge facilitation at AstraZeneca. Paper presented at *European Academy of Management Conference*, Stockholm, Sweden, May 9-11, 2002.

- [20] Savage, C. M. (1996). *5th Generation Management. Co-creating through Virtual Enterprising, Dynamic Teaming, and Knowledge Networking*. Newton, Mass.: Butterworth-Heinemann.
- [21] The World Bank (2011). *Nurturing Innovation: Venture Acceleration Networks, A Review of Existing Models*. Washington, DC. Available from <https://openknowledge.worldbank.org/handle/10986/12519> [3 March 2014]
- [22] Wenger, E. (2000). Communities of practice and social learning systems. *Organization*, 7 (2), 225-246.
- [23] Williams Middleton, K., & Donnellon, A. (2014). Personalizing Entrepreneurial Learning: A Pedagogy for Facilitating the Know Why. *Entrepreneurship Research Journal*, 1-38.
- [24] Woodside, A.G. (2010). *Case Study Research: Theory, Methods, Practice*. London: Emerald.
- [25] Yin, R.K. (2003). *Case Study Research: Design and Methods* (3rd ed.), Thousand Oaks, CA: Sage.
- [26] Zollo, M., & Winter, S. G. (2002). Deliberate Learning and the Evolution of Dynamic Capabilities. *Organization science*, 13(3), 339-351.

**ENTREPRENEURS' SOCIAL SKILLS AND ACCESS TO EXTERNAL RESOURCES:
THE ROLE OF SOCIAL CAPITAL**

Amina Omrane, amina.omrane@yahoo.fr
Tunis*EM Lyon Business School, France

ENTREPRENEURS' SOCIAL SKILLS AND ACCESS TO EXTERNAL RESOURCES: THE ROLE OF SOCIAL CAPITAL

Abstract

Consistent with the previous studies investigating the relationship between social competencies, entrepreneur's success and access to essential resources, this research intends to add new findings concerning the mediating role of the social capital which enhances the effects of several social skills.

Results indicate that the entrepreneurs' proficiency at persuasiveness, ingratiation and personal emotional intelligence is significantly related to their access to vital resources, especially venture capitalists' financing and useful information. These effects are mediated by the entrepreneurial social capital, which is based on an extensive network involving weak and non redundant ties.

The implications of these findings assist entrepreneurs in the Tunisian High-Technology field in understanding the process by which social skills increase the level of social capital to gain access to paramount resources and success at the survival/development stage of the entrepreneurial process.

Keywords: social skills; entrepreneurs; new venture; access to vital resources; social capital; High technology field.

1. Introduction

A large body of research in several fields, such as sociology, health science, Strategic Management and Human Resource Management, has largely dealt with social skills as competencies that allow individuals to interact effectively with one another (Riggio et al, 1993)

Most of such findings argue that social skills play a key role in achieving success, overall performance and satisfaction with life in general (Perrewé et al, 2000; Witt and Ferris, 2001, 2003; Ferris et al, 2005, 2007).

In the field of Entrepreneurship, Baron and Markman (1998, 2003), Baron and Brush (1999), as well as Baron (2004), provided a considerable contribution to quantitative research on social competencies when they reported on the development of several empirical studies emphasizing the strong beneficial effects of specific entrepreneurs' social skills on their success.

Their work helped establish some support for social skills measures and their positive effects on new venture outcomes.

Indeed, a detailed review of the preceding research findings, which was outlined by Markman and Baron (1998, 2000, 2003), Baron and Tang (2009), reveals that several social skills are more likely to significantly influence the entrepreneurs' financial success, outcomes and new venture performance. These skills incorporate: (a) persuasiveness (the proficiency at wielding the effective tactics for social influence by convincing others to change their points of view, and even their behavior towards the desired goals; Cialdini, 2000), (b) impression management (the skill at inducing good first impressions on others; Riggio and Riggio, 2001), and (c) emotional intelligence (the capacity of recognizing one's feelings and those of others, and managing his emotions as well as his relationships with everyone; Goleman, 1998, Goleman et al, 2002).

Furthermore, in consistence with other previous studies conducted by Ferris et al (2005), Hochwarter et al (2006), Cantner and Stutzer (2010); Baron and his colleagues (1998, 1999, 2003, 2009) have drawn attention to the importance of social capital (defined as the set of connections and interactions existing in the network of the entrepreneur, which enable him to gain access to other resources; Kim and Aldrich, 2005). These authors also indicated that social capital helps entrepreneurs gain access to people who are important for their success (such as potential partners, consultants, potential customers and suppliers, venture capitalists). They presumed that specific social skills may lead to social capital by expanding and improving the entrepreneur's network.

All the research findings mentioned above are important. However, they called for more considerable attempts to fully explore the content domain of entrepreneurial social skills and examine their implications in different contexts and at different stages of the entrepreneurial process.

The present study is built on previous advances and aims at extending their scope in several ways.

First of all, we examined the effects of social skills at a particular stage of the entrepreneurial process: the new venture survival/development. For this purpose, we adopted the new venture creation process proposed by Bruyat and Julien (2001), Fayolle and Bruyat (2001), and Fayolle (2007). These scholars divided the entrepreneurial process into three distinct, but complementary phases:

(1) The trigger: this happens when the entrepreneur is highly motivated so that he can't abandon the idea of setting up a project;

(2) The commitment: this occurs when the entrepreneur devotes the majority of his time, energy and money to assemble the different elements of the project;

(3) The survival/development phase: it is carried out when the new venture is above its breakeven point enhancing the entrepreneur to look for viability and expansion.

Referring to several lines of evidence (developed especially by Johannisson, 2000; Elfring and Hulsink, 2003; Tornikoski and Newbert, 2007, ...), it appears that the survival/development stage is the most critical one because it enables the entrepreneur to gain stability and consolation once he has succeeded in solving the problems related to the lack of legitimacy, uncertainty, scarcity of resources, and informational asymmetry.

Second, the current research is inspired by Baron and Tang's (2009) findings but seeks to examine the effects of the entrepreneurs' social skills on their access to external essential resources rather than on their success throughout the survival-development stage.

Indeed, we underlined that, in this phase, entrepreneurs are looking for the simultaneous development of the current and potential products/ services, the attraction of new customers, and the increase of the company's sales and market share in order to reach a certain financial and commercial stability (Fayolle, 2007)... The ultimate entrepreneurial success is, then, strongly dependent on the degree of access to outside essential resources, such as financing, information and support (Brush, 1992; Cable and Shane, 2002; Stuart and Sorenson, 2005; Groen, 2005).

The stream of these findings coupled with additional ones advanced by Elfring and Hulsink (2003), Ravasi and Turati, (2005) and Fayolle (2007) led us to argue that the main problem that threatens the new venture survival is the lack of resources. According to the researchers mentioned above, these resources encompass essentially financing as well as the useful information whose acquisition requires socially skilled entrepreneurs and good communicators.

Third, we have chosen to conduct our survey in the Tunisian context (not studied in previous researches) where entrepreneurship is being more and more encouraged in order to enhance economic growth and reduce unemployment rate. More precisely, we have opted for new ventures undertaken in the High- Technology sector, which witnesses a high environmental turbulence but generates high profits. In such current context, entrepreneurs who decide to invest should build and manage well their relationships with the key customers, investors, and all the key persons operating in famous and multinational High-Technology firms. This enables them to acquire resources that they need for the development of their new projects.

On the basis of all these considerations, we suggest that, when all the other factors are equal, social capital enables Tunisian High-Technology entrepreneurs to gain access to external vital resources thanks to their social skills. Then, the High-Technology field offers an appropriate context for the current study.

2. Theoretical development

As mentioned above, the main target of this study is to dwell on the basic social determinants of the entrepreneurs' success. The emphasis is put on the manner by which a new venture, recently involved in the market and disadvantaged to established organizations, can go beyond its liability of newness. To do so, its nascent founder is called to obtain and recombine paramount resources the venture needs to acquire a certain reliability and stability (for more details, see Delmar and Shane, 2004; Tornikoski and Newbert, 2007).

In what follows, we first propose some hypotheses related to the effects of the entrepreneurs' social capital on their access to outside vital resources. Then, we point out the key role of specific social skills by developing

hypotheses concerning not only their impact on the access to relevant external resources, but also on the social capital development.

2.1. Effects of social capital

In compliance with the previous studies conducted by the network theory advocates; Baron and Brush (1999) as well as Baron and Markman (2000, 2003) have drawn attention, at least in a way, to the importance of the social capital (defined as the set of connections and interactions in the entrepreneur's network, enabling him to gain access to other resources; Kim and Aldrich, 2005).

These authors have indicated that social capital helps entrepreneurs gain access to people who are willing to support the development of their ventures.

For this reason, we focused on the bridging social capital perspective advanced by Burt (1992, 2000), then by Adler and Kwon (2002). This view describes social capital in terms of weak and non redundant ties in a large network of relationships. Unlike strong ties built with family members and close friends, weak ties correspond to the vague, occasional or fortuitous acquaintances which don't generate an emotional investment (Dubini and Aldrich, 1991). However, the non redundant ties constitute contacts that don't give access to the same sources of information and then to the same people (Burt, 1992, 1997). Finally, the extent of a network is approached by the number of contacts the entrepreneur knows.

The preceding considerations lead us to propose the following hypothesis:

Hypothesis 1: A high level of social capital assists the entrepreneur to gain access to financing.

On the basis of the research orientation developed by Cable and Shane (1997, 2002), and Batjargal and Liu (2004) who underlined that a developed entrepreneurial social capital generates access to financing, we can hypothesize that:

Hypothesis 1a: A high level of social capital assists the entrepreneur to gain access to financing.

Furthermore, following Nahapiet and Ghoshal (1998), Seibert and colleagues (2001), Yi- Renko et al (2001), Uzzi and Lancaster (2003) as well as Cantner and Stutzer (2010), we argue that new ventures operating in uncertain areas benefit more from their non redundant, weak and numerous ties to acquire useful information they need for the development of their new ventures. Thus, we can suggest the following testable hypothesis:

Hypothesis 1b: A high level of social capital assists the entrepreneur to gain access to relevant information.

2.2. Effects of social skills

Once again, focusing on the conceptual insights and empirical findings suggested by Baron and Markman (1998, 2003); Baron (2004); Baron and Tang (2009), we will focus, in what follows, on the most relevant social skills in the Tunisian High-Technology context in order to push forward a more coherent view of their beneficial effects on the access to useful information and financing.

These social competencies involve:

(1) Persuasiveness: it refers to the capacity for changing the attitudes or behaviors of others in the pursuit of compliance (Dillard and Marshall, 2003; Dillard, 2004). It represents the aptitude to control and influence the answers of others towards the expected directions (Cialdini, 1994, 2000; Ewart et al., 2002).

Gartner et al (1992) and Baron and Markman (1998; 2003) have argued that entrepreneurs' proficiency at social influence contributes to their success.

On the basis of these findings, we can propose the following hypotheses:

Hypothesis 2: The entrepreneur's skill at persuasiveness has a positive impact on his access to essential resources.

In this perspective, the entrepreneur's success is explained by his ability to quickly obtain the adhesion and support of the current and potential investors (venture capitalists or bankers) ideas or goals. Baron and Markman (2003), and Chi, Baron et al (2008), pointed out that persuasiveness may change the investors' attitudes and *decisions, as well as other stakeholders' ones, towards the entrepreneur's desired goals. Then, we can propose the following hypotheses:*

Hypothesis 2a: The entrepreneur's skill at persuasiveness has a positive impact on his access to financial resources.

Hypothesis 2b: The entrepreneur's skill at persuasiveness has a positive impact on his access to the relevant and useful information.

(2) Impression management: it is defined as the proficiency at making good impressions on others and inducing positive and favorable reactions to them (Schlenker, 1980; Wayne and Liden, 1995). According to Baron and Tang (2009), it includes two distinct components: **ingratiation**, which refers to the efforts provided in order to induce high degrees of esteem on others by expressing liking for them or asking for their advice and Feedback (Wayne and Ferris, 1997) and **self-promotion**, which involves the ability at positively presenting his own skills and accomplishments in order to increase one's appeal to others (Bolino and Turnley, 1999);

These research findings corroborate those of Baron and Markman (1998, 2003) and Baron (2004). Moreover, Baron and Tang (2009) added that the amount of efforts made by entrepreneurs to make a first good impression on others and induce high degrees of liking in them- defined as ingratiation- could strongly influence the entrepreneurs' success.

Hypothesis 3: The entrepreneur's skill at ingratiation is positively related to his access to the essential resources.

Hall and Hofer (1993), Timmons (1994), Zacharakis and Meyer (1995) as well as Shepherd et al (2007) stressed that venture capitalists' decisions concerning their investment in the assembly and development of new ventures are strongly dependent on the profile of entrepreneurs, their current behaviors, their competencies and their experiences, by "the manner which is the person himself".

These considerations bring us to propose this hypothesis:

Hypothesis 3a: The entrepreneur's skill at ingratiation is positively related to his access to financial resources.

Moreover, Baron and Tang (2009), referring to Lewicki and Wiethoff (2000), Ferris et al (2005), argued that impression management tactics used by the entrepreneur, and based on ingratiation and flattery, engender high levels of trust and liking of others. This may, in turn, provide the entrepreneur with a large array of information. Thus, we can hypothesize that:

Hypothesis 3b: The entrepreneur's skill at ingratiation is positively related to his access to the relevant information.

(3) Emotional Intelligence: it represents the ability to perceive and express one's feelings adaptively, the adeptness at understanding, regulating and monitoring emotions in oneself and others (Mayer and Salovey, 1995, 1997; Mayer et al, 2001; Goleman et al, 2002).

The scholars have also advanced that Emotional Intelligence could be an important predictor of success not only in personal relationships and family functioning, but also in the workplace (Goleman et al, 2002).

Goleman (1998) distinguished between two clusters of emotional skills: the first one is called personal emotional intelligence and refers to self-awareness and self-management (understanding and controlling one's internal states, preferences, intuitions and resources); the second represents social emotional intelligence and encompasses social awareness and relationship management (understanding emotions of other people and dealing well with them).

To adapt the previous findings to our present context, we will focus, in what follows, on the personal emotional intelligence which seems to be more efficient for gaining access to external useful resources (according to qualitative research findings). Thus, we propose the following hypothesis:

Hypothesis 4: The entrepreneur's skill at personal emotional intelligence has a positive impact on his access to the essential resources.

More specifically, Soros (1987), Gardner (2004) and Bandura (1995, 2001) highlighted that self-awareness, self-confidence and self-efficacy have positive impacts on self-fulfilling, handling changes, pursuing goals, and improving success in obtaining the desired resources. On the basis of this reasoning, we can test the following set of hypotheses:

Hypothesis 4a: The entrepreneur's skill at personal emotional intelligence has a positive impact on his access to financial resources.

Hypothesis 4b: The entrepreneur's skill at personal emotional intelligence has a positive impact on his access to the relevant information.

Additional lines of evidence provide support for our prediction that socially skilled entrepreneurs will develop their network of relations and then their social capital more effectively so that they both raise their status within the market, and provide essential resources for the development of their new ventures.

In this perspective, Baron and Markman (2000, p.1) reported that « Specific social skills, such as the ability to read others accurately, to make favorable first impressions, adapt to a wide range of social situations, and be persuasive, can influence the quality of these interactions»; they added that « social capital is often the result of such skills».

In line with these assumptions, Diener and Seligman (2002) mentioned that «persons with high various social skills tend to have social contacts wider than those with low social skills».

Similarly, Baron (2004, p.222) revealed that «social skills may provide an important foundation for the development of social capital».

Hypothesis 5: The entrepreneur's social skills are positively related to the development of his social capital.

Furthermore, Meurs (2008) used Conservation of Resources theory to support that social capital resources are gathered, maintained, and employed to reach desired personal and organizational goals by the socially skilled individual. The resources he proposed are the most valuable, rare, inimitable, and non substitutable (Barney, 1986, 1991). He argued that a socially skilled person is better able to discern the resources that fall into those categories and to strategically employ them in the pursuit of his desired goals.

In this regard, we suggest testing these hypotheses:

Hypothesis 5a: The entrepreneur's skill at persuasiveness is positively related to the development of his social capital.

Hypothesis 5b: The higher the entrepreneur's skill at ingratiation, the higher his social capital's level will be.

Hypothesis 5c: The entrepreneur's proficiency at personal emotional intelligence has a positive impact on the level of his social capital.

3. Method

3.1. Sample and Procedures

We combined qualitative and quantitative approaches. For the qualitative method, we conducted ten pilot studies with new venture successful entrepreneurs committed to the High- Technology sector. Face-to-face interviews were carried out with these entrepreneurs to collect the main required data in order to adapt our investigation to the current Tunisian context. Moreover, we interviewed four experts in the High-Technology field. Each interview lasted between 30 and 50 minutes. Based on feedbacks during the qualitative research (pilot studies and expert interviews), we have chosen to limit our research to the most common highlighted social skills that distinguish the successful entrepreneurs. These social skills are persuasiveness, impression management and emotional intelligence. A first version of the questionnaire was then made. Four academicians were consulted to make sure that all the items chosen in our questionnaire transmit well the content of their appropriate constructs. A revisit of the wording of certain items was made for each scale to ensure considerable overlap in language and concepts. Furthermore, relying on the framework established by Besson and Haddadj (2003) for adapting an international survey instrument, the initial English version of the survey was translated into French. The French version was later retranslated into English by an academician. Some changes were made to correct any inconsistency made when comparing the French and English versions of the survey.

Our final survey instrument was prepared after pre-testing the questionnaire obtained next to 30 participants.

To constitute our sample, we have referred to multiple sources of information (such as the agency of Industry and Innovation Development, the chambers of commerce, and the communication lead officers in technology parks, respectfully in Tunis, Sousse, Sfax and Monastir).

A first list of 320 new High-Technology ventures (created since 2007) has been reviewed. Out of 320 representative entrepreneurs of these ventures, only 120 accepted to answer with complete data, reflecting a response rate of 37.50%.

3.2. Common Method Variance

Given the nature of perceptual data using a single source of information, it is always possible that some degree of common method bias may exist. The presence of a common method variance would threaten both the validity and analysis of the

data if a single latent factor accounts for all the observable variables. We adopted Harman's one-factor test to investigate the common method variance (for more details, see Podsakoff and al, 2003). All the items that we have used to measure the independent and dependant variables were entered into an exploratory factor analysis. The results revealed the presence of eight factors with eigenvalues greater than one (respectively to Kaiser criterion) and the first factor explained only 14.392 of the total variance. Thus, there is no significant common method bias in our data.

3.3. Measures

Whenever it was possible for us, we adopted measures from the literature. However, an arrangement of certain items and exclusion of others was necessary to increase the scale's assessment and enhance the credibility and usefulness of interviewees' feedback data. The new final instrument resulting from this work contains the concise and understandable items which reflect more accurately the content of their relative constructs.

For each construct, the correspondent items were subject to Principal Component Analysis (PCA) with varimax rotation which creates orthogonal-not correlated factors. For this reason, we first examined the interitem correlation matrix within each construct and dropped those that show low correlations. As a rule of Thumb, we kept only the items which contribute to a KMO's value greater than 0.7 and an eigenvalue greater that one by each factor (relatively to Kaiser-Mayer-Olkin measure of sampling adequacy, Bartlett's test of sphericity and Kaiser criterion). For some factors, we accepted a KMO's value close to 0.65.

In addition, we checked the reliability, stability and unidimensionnality of each construct. Cronbach's Alpha for each construct was greater than 0.70, the cutoff value suggested by Nunally (1978).

Social skills

As mentioned above, we referred to the empirical scope of the social skill conceptualization considered by Markman and Baron (1998), Baron and Markman (2003) and Baron and Tang (2009). A 1-5 point Likert-type reflective scale ranging from one representing "strongly disagree" to five representing "strongly agree" was used to measure the specific social skills that we have chosen in the present research. Each rating is a single item on a 5-point scale. Higher scores reflect higher levels of social skills. The measurements employed are described and presented in details in Table 1, as follows.

TABLE 1: RESULTS OF FACTOR ANALYSIS OF SOCIAL SKILLS' MEASURES

Items	Factor1	Factor2	Factor3	Factor4	Factor5
Persuasiveness					
1- I am very good at getting other people to do what I want in most situations	-0.015	0.133	-0.113	0.862	0.146
2- If I set out to persuade someone to change his views on an issue, I am usually quite successful in doing so	0.054	0.094	0.078	0.877	0.182
3- I don't find any difficulty to speak in front of a large group of people	0.005	0.023	-0.095	0.856	0.175
Personal Emotional Intelligence					
4- I understand and recognize my own emotions, and their effects, my strengths and my limits	0.035	0.949	0.036	0.028	-0.018
5- I always control my disruptive emotions as well as my impulses	0.000	0.973	0.048	0.031	-0.026
6- I usually actualize my potentialities and I do my best to meet a standard of excellence	0.019	0.959	0.008	0.049	0.047
7- I am capable for adapting my feelings and to appropriate them in any situation	0.060	0.804	-0.004	0.156	0.015
Social Emotional Intelligence					
8- I can sense others' feelings and perspectives, and taking an active interest in their concerns	0.979	0.011	-0.061	0.031	-0.016

9- I can easily guide individuals, groups and generate enthusiasm in a team of work	0.932	0.007	-0.038	0.037	0.019
10- I can usually create a group synergy in order to pursue collective goals, when I work with many persons	0.932	0.096	-0.063	-0.016	0.031
11- I am capable of building long-lasting, mutual and satisfying relationships with others	0.927	0.007	-0.033	-0.001	0.001
Self-promotion					
12- I can easily talk proudly about my education and experience	0.107	0.029	0.740	-0.066	-0.107
13- I make others aware of my qualifications and abilities	-0.114	-0.087	0.783	-0.118	-0.167
14- I make other people aware of my accomplishments	-0.009	0.076	0.762	0.013	-0.059
15- I let others know that I have a lot of competencies in my domain	-0.192	0.044	0.767	0.031	0.120
Ingratiation					
16- I do personal favors for others to show them that I am friendly	0.027	0.007	0.015	0.171	0.770
17- I use flattery and favors so that others like me more	0.030	0.005	-0.127	0.187	0.861
18- I have no trouble praising others for their accomplishments so that they consider me a nice person	-0.028	-0.081	-0.104	0.118	0.845
Eigenvalues	3.968	3.449	3.192	2.101	1.355
Percentage of variance explained	20.143	19.291	13.324	13.177	12.204
Cumulative Percentage of variance explained	20.143	39.434	52.758	70.609	78.139

Persuasiveness

A five-item evaluation of the participants' persuasiveness was taken from the instrument used by Markman and Baron (1998). However, in our context, only 3 of 5 items are gathered in a single latent factor. Persuasiveness explains 78.667% of the total variance (KMO= 0.734). Items 4 and 5 were less correlated to other items. Therefore, they were dropped.

Impression management

The eight-item scale developed by Baron and Tang (2009) was employed to measure Management impression. In their work, Baron and Tang referred to the instrument of Bolino and Turnley (1999) and obtained two distinct constructs: ingratiation (four items) and self-promotion (four items). Once a factor analysis is conducted for the eight items, one item is dropped because it is less correlated with the second factor (ingratiation). Then, seven items are fitted in with their two convenient constructs, with eigenvalues greater than one and explaining 65.256% of the total variance (KMO=6.73).

As noted above (in the theoretical development), of the two dimensions of impression management, self promotion seems to be inappropriate for the present study and especially for the Tunisian context as it induces negative reactions on the majority of the interviewees. Therefore, we retained only ingratiation.

Emotional intelligence

Several suggestions of measures are highly recommended by researchers who made great efforts in working on Emotional Intelligence. We referred to those proposed by Markman and Goleman (1998); Goleman et al (2002); Bar-On (2005) and obtained a concise nine-item scale appropriate to our research, by taking into consideration the data collected for the qualitative approach. The items related to influence are dropped to avoid any multi-collinearity between persuasiveness and social emotional intelligence. Once a factor analysis is performed on the nine obtained items, one item is eliminated (Item 6) leading to two distinct factors with an acceptable level of KMO (KMO= 0.806). These two factors correspond respectively to the personal emotional intelligence (4 items) and the social emotional intelligence (4 items), with eigenvalues greater than 1. Together, they explain 87.782 % of the total variance.

Once again, of the two distinct aspects of emotional intelligence, social emotional intelligence items seem to be less coherent with the objectives of our study. Hence, we have chosen to limit our emphasis to personal emotional intelligence which was more evoked by experts in our qualitative research.

Social capital

As noted above, we refer to the bridging social capital view which incorporates weak and non redundant ties in an extended network of relations. Following the previous researches (Burt, 1992, 1997, 2000; Seibert et al, 2001), we presented the social capital as a multidimensional construct including the structural non redundancy, the number of weak ties and the size of the entrepreneurs' network. We kept these measures as metric ones. The size of the entrepreneurs' network corresponds to the number of people who helped these entrepreneurs, in some way, with the development of his project during the last six months (the maximal size of the network was ten). Weak ties are occasional or professional and correspond to distant relationships between the entrepreneur and his peers (friends, customers, colleagues). These weak ties are also supposed to assist the entrepreneur in the development of his new venture.

Structural Diversity (SD) measurement arises from Borgatti and colleagues' (2002) software (UCINET VI) which calculates the structural constraint (SC) of each entrepreneur's network. SD is derived from SC as follows: $SD = 1 - SC$.

A metric three-item scale is then developed to assess the entrepreneurial social capital.

The network size, the number of weak ties and the SD gathered in one factor: the entrepreneurial social capital. This factor eigenvalue is greater than 1 and explain 77.779% of the total variance (KMO= 0.687).

Access to financial resources

On the basis of Batjargal and Liu's (2004) research, we measured access to financing with three items: (a) The number of articles, which protect the investor's interests and his property rights in the convention that we have signed, is limited; (b) The period separating the date of the investment decision and the effective injection of the financing is short; (c) The difference between the initial amount of investment and the financing that we have really obtained is negligible. We slightly modified the original scale by converting it to a 1-5 point Likert-type reflective scale to make some arrangement and homogeneity between the two dependant variables. These items explain 73.830 % of the total variance (KMO= 0.705).

Access to useful informational resources

We operationalized access to the relevant information with reference to Lee and al's (2002) as well as to Baron and Tang's (2009) scales and obtained this four-item scale, taking into account feedbacks arising from our qualitative research: (a) we can easily search and locate the relevant technical and commercial information required for the development of the venture; (b) It's quite easy for us to gain access to the relevant technical and commercial information; (c) we can easily get the technical and commercial information that we need for the project; (d) we can quickly gain access to the useful technical and commercial information needed for the development of the venture. These items are positively correlated with each other and lead to a single latent factor explaining 78.294% of the total variance (KMO= 0.835).

All the items were maintained for the two dependant variables.

4. Results

As noted above (in measures' step), an Exploratory Factor Analysis (EFA) was conducted to check if the proposed factors are appropriate to the data we have already collected. For this reason, a factor analysis was performed with PCA and yielded interpretable factors which represent the variables we have selected for the current study. All the refinement efforts already made on the factor analysis (by SPSS software) for social skills' variables are reported in Table 1. This table indicates that all the items converge highly towards their corresponding constructs, and that there are no cross-loadings. Besides, all these factors present eigenvalues greater than 1 and explain 78.139%

of the total variance. Social capital, access to financing and access to the relevant information were also subject to PCA, following the same procedure and providing effective results (as noted in measures' step).

Then, a confirmatory factor analysis was conducted using a structural equation modeling to examine the reliability of each construct, the convergent validity and the discriminant validity of all the constructs. Accordingly, we used Partial least squares (PLS), a covariance based approach, dedicated to test and estimate the causal relationships between dependant and independent variables in a single systematic analysis (Urbach and Ahlemann, 2010).

4.1. Assessment of reliability and construct validity (outer model assessment)

The reliability of each construct was determined by calculating the Cronbach's Alpha used for assessing the internal consistency reliability (assuming that all the indicators are equally reliable; Cronbach, 1951) and the Composite one (taking into account that the indicators have different loadings (Henseler et al, 2009). Table 2 indicates that Cronbach's Alpha values and Composite reliability for all the constructs of the present study are well above the cutoff of 0.7, as recommended by Chin et al (1996).

The convergent validity involves the degree to which the items reflecting each construct converge in comparison with those measuring different constructs (Urbach and Ahlemann,

2010). A commonly applied criterion is the Average Variance Extraction-AVE- proposed by Fornell and Larcker (1981). The proposed threshold value is 0.5. So, the AVE must be higher than 0.5. Besides, Chin (1998) as well as Chin and al (2003) indicate that we should check the indicator reliability applied to seek out how much of the indicators variance is explained by the corresponding latent variable. This implies that the loading values of the items must be higher than 0.7, with a significant t-value level (higher than 1.96) (Geven and Straub, 2005). As shown in table 2 below, loadings for the indicators of each construct used in the current research are higher than 0.7, with a significant t-value. The AVE of each construct is also higher than 0.5.

TABLE 2: CONVERGENT VALIDITY, FACTOR LOADINGS AND RELIABILITY

Construct	Indicators	Loadings	t-value
Persuasiveness ($\alpha=0.864$, CR=0.913, AVE=0.779)	PersS1	0.907	37.769
	PersS2	0.923	53.424
	PersS3	0.814	16.001
Ingratiation ($\alpha=0.801$, CR=0.881, AVE=0.713)	InG6	0.793	8.464
	InG7	0.915	21.112
	InG8	0.821	8.659
Personal Emotional Intelligence ($\alpha= 0.943$, CR=0.960, AVE=0.859)	IEmot1	0.948	89.595
	IEmot2	0.971	172.990
	IEmot3	0.958	81.595
	IEmot4	0.823	31.359
Social Capital ($\alpha=0.855$, CR=0.777 0.912, AVE=0.777)	NSZ	0.926	88.653
	NWT	0.911	58.918
	SNR	0.802	23.320
Access to financial resources ($\alpha=0.822$, CR=0.893, AVE=0.737)	ACap1	0.870	23.835
	ACap2	0.851	19.010
	ACap3	0.854	16.888
Access to informational resources ($\alpha=0.906$, CR=0.934, AVE=0.780)	FAIn	0.895	50.324
	FOIn	0.921	49.564
	FRIn	0.905	56.215
	RAIn	0.809	21.973

Notes: α = α de Cronbach; CR= Composite Reliability; AVE=Average Variance Extracted

The discriminant validity refers to the extent to which the different constructs differ from one another (Zhu et al, 2006). In the PLS approach, two measures are commonly used: The Fornell-Larcker criterion and the “Cross-loadings” criterion proposed by Chin (1998).

The first criterion requires a construct to share more variance with its assigned indicators than with any other construct. Thus, the AVE’s square root of each construct should be higher than the correlation between any pair of other constructs (Gefen and Straub, 2005). The details reported in Table 3 indicate that the square root of the AVE (diagonal elements of the correlation matrix) is greater than the absolute value of the inter-construct correlations (off-diagonal elements).

According to the second criterion, the loadings of the measurement items of each construct must be larger than any of those of the other constructs. Otherwise, each construct indicators load very high (Chin, 1998-b, Gefen and Straub, 2005).

As shown in table 4, for each latent variable, all the loading values of the items are larger than any other factor’s loading values.

TABLE 3: DISCRIMINANT VALIDITY (1): MATRIX OF LATENT VARIABLES’ CORRELATION

Variable	1	2	3	4	5	6
1-Persuasiveness	0.882					
2-Ingriatiation	0.371	0.844				
3-Personal Emotional intelligence	0.166	-0.027	0.926			
4-Social capital	0.253	0.026	0.671	0.881		
5-Access to financial resources	0.256	0.155	0.102	0.295	0.858	
6-Access to relevant information	0.335	0.269	0.384	0.428	0.145	0.883
Mean (of scale)	7.63	7.43	10.65	6.453	8.28	12.48
Standard Deviation (of Scale)	2.58	2.02	3.427	2.942	2.359	3.755

Notes: Diagonal elements = the square root of the AVE; Off-diagonal elements = interconstruct correlations;

TABLE 4: DISCRIMINANT VALIDITY (2): STRUCTURE MATRIX OF FACTOR LOADINGS AND CROSS- LOADINGS

Measures	Factor Loadings					
	1	2	3	4	5	6
1-Persuasiveness						
PersS1	0.907	0.321	0.186	0.247	0.187	0.341
PersS2	0.923	0.340	0.148	0.229	0.288	0.367
PersS3	0.814	0.336	0.081	0.182	0.184	0.084
2-Ingriatiation						
InG6	0.299	0.793	-0.003	0.031	0.182	0.176
InG7	0.354	0.915	-0.001	0.055	0.147	0.288
InG8	0.273	0.821	-0.087	-0.047	0.040	0.195
3-Personal Emotional Intelligence						
IEmot1	0.127	-0.034	0.948	0.621	0.070	0.380
IEmot2	0.132	-0.040	0.971	0.646	0.082	0.360
IEmot3	0.151	-0.055	0.958	0.630	0.096	0.367
IEmot4	0.210	0.034	0.823	0.589	0.133	0.313
4-Social capital						

NSZ	0.259	0.074	0.566	0.926	0.373	0.417
NWT SNR	0.152	-0.041	0.767	0.911	0.085	0.374
	0.272	0.041	0.409	0.802	0.345	0.336
5-Access to financial resources						
AVCa1	0.197	0.186	0.070	0.207	0.870	0.112
AVCa2	0.195	0.090	0.109	0.314	0.851	0.096
AVCa3	0.266	0.132	0.079	0.227	0.854	0.166
6-Access to relevant information						
	0.390	0.260	0.430	0.455	0.130	0.895
FAIn	0.321	0.317	0.283	0.361	0.181	0.921
FOIn FRIn RAIn	0.350	0.190	0.307	0.332	0.141	0.905
	0.041	0.153	0.314	0.341	0.037	0.809

Overall, we can use all the constructs to test the hypotheses that we have proposed.

4.2. Assessment of path coefficients and overview of inner model fit measures

The results of the interaction analyses dealing with the access to financing and to the relevant information as dependant variables are reported in table 5.

TABLE 5: SUMMARY OF PATH COEFFICIENTS OF STRUCTURAL MODEL AND PLS STATISTICS

Variables	4-Social capital	5-Access financing	6-Access relevant information	Hypotheses
1-Persuasiveness	0.150 **	0.162 **	0.163 ***	Hypotheses 2a, 2b and 5a supported
2-Ingriatiation	-0.012 ^{ns}	0.081 ^{ns}	0.207 **	*Hypothesis 3b supported *Hypotheses 3a and 5b not supported
3-Personal Emotional Intelligence	0.646 *	-0.167 ^{ns}	0.194 ***	*Hypotheses 4b and 5c supported *Hypothesis 4a not supported
4-Social capital		0.364 *	0.251 ***	Hypotheses 1a and 1b supported
R ²	0.472	0.144	0.2925	
f ²	0.030(1) 0.748(2)	0.078 (4)	0.038 (4)	
GOF	0.483			

As shown in the table 5, the entrepreneur's social capital is positively and significantly related to access to financing ($\beta= 36.4\%$) as well as to the relevant information ($\beta= 25.1\%$). Consequently, hypotheses 1, 1a and 1b are supported.

In addition, results provided support for the prediction that several social skills, such as social persuasion, ingriatiation and personal emotional intelligence, are positively and significantly related to the access to the relevant information (β values are respectively 36.4%, 20.7% and

19.4%). Hypotheses 2b, 3b and 4b are then supported. Out of the three social skills, which we have selected in the current study, only persuasiveness is positively and significantly related to the access to financing ($\beta=16.2\%$). Hypotheses 2a is then supported. However, no support is found for hypotheses 3a and 4a. Indeed, personal emotional intelligence has a negative impact on the entrepreneurs' access to financing; whereas ingriatiation is weakly linked to access to financing and both values associated with these social skills didn't attain statistical significance.

Moreover, the results indicated that persuasiveness and personal emotional intelligence are positively and significantly related to the entrepreneurial social capital, supporting a large effect of personal social intelligence ($\beta=64.6\%$) in comparison with persuasiveness ($\beta=15\%$). Hypotheses 5a and 5c are supported, but no support is found for hypothesis 5b, related to ingratiation.

In order to explain the endogenous latent variables' variance, we assessed the key target construct level of the coefficient of determination- R^2 for the social capital, access to the relevant information and access to financing.

The R^2 for entrepreneur's social capital is 0.472, which means that social skills explain 47.2% of the social capital's variance. R^2 for the access to financing is 0.144, whereas the R^2 for the access to the relevant information is 0.292. According to Chin (1998-b) and Ringle (2004), values around 0.67, 0.333 and 0.19 are respectively considered as substantial, moderate and high. Then, R^2 associated to social capital is high; R^2 for access to the relevant information is moderate, whereas R^2 relative to the access to financing is weak.

The difference between the squared multiple correlations is used to assess the overall effect size f^2 for the interaction where 0.02, 0.15 and 0.35 are respectively considered as small, moderate, and large effects (Cohen, 1988; Ringle, 2004). We found an effect size of 0.038 for access to the relevant information, 0.078 for access to financing (respectively to the expected effects of the social capital) and 0.748; 0.030 for social capital (respectively to the expected effects of Personal Emotional Intelligence and Persuasiveness). All these value sizes have small to medium effects, except that of the size linked to Personal Emotional Intelligence and related to the social capital.

We also found a Global adjustment Indicator-GOF of 0.483 which means that the overall explanation power of the model is high. (Henseler et al (2009) advance that values around 0.1; 0.25 and 0.36 are respectively considered substantial, moderate and high).

Figure 1 presented below shows, in details, all the relations between the entrepreneurs' social skills, their social capital and their access to financing and useful information.

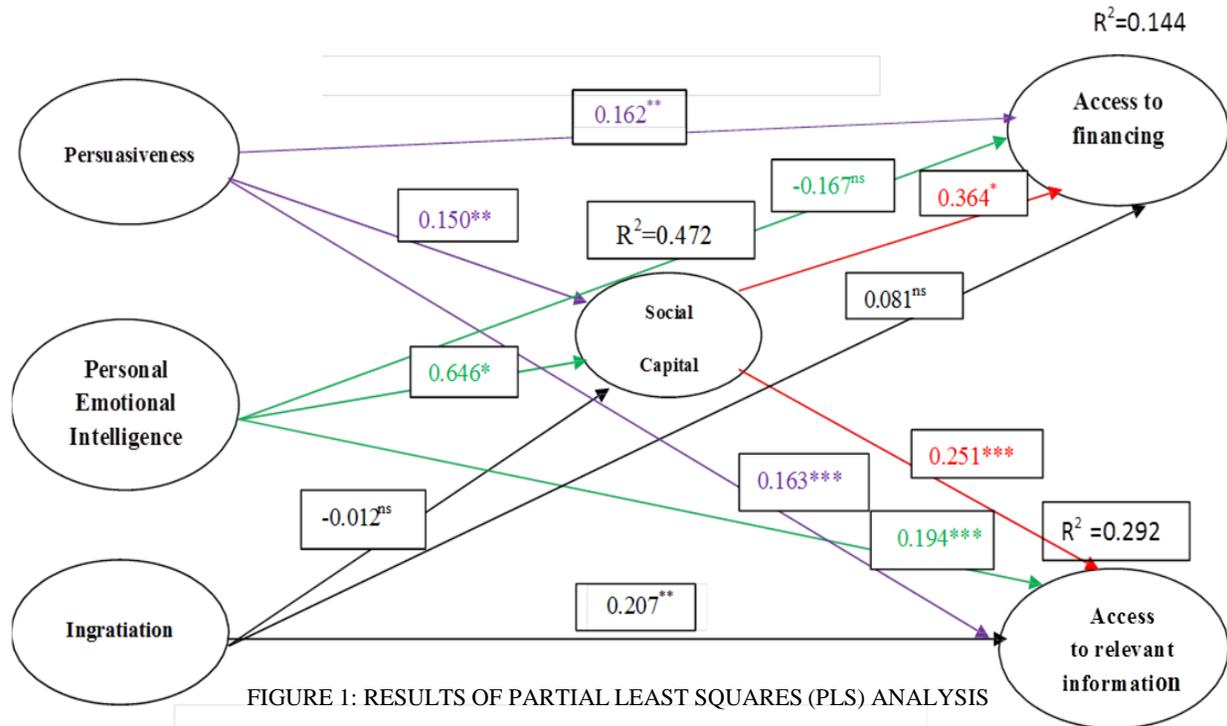


FIGURE 1: RESULTS OF PARTIAL LEAST SQUARES (PLS) ANALYSIS

Overall, the results provided some evidence that socially skilled entrepreneurs are more likely to enlarge their social capital. This capital is, in turn, largely used by entrepreneurs to obtain the external paramount resources they will need for the survival/development of their new ventures.

5. Discussion

The results of the current study are consistent with the findings of the previous studies which have largely underlined that specific entrepreneur's social skills have a significant impact on their financial success and their new venture performance (Baron and Markman, 1998; 2003; Baron and Brush, 1999; Baron, 2004). Recent additional findings reported by Baron and Tang (2009) have also drawn attention to the mediating role of two variables: the entrepreneur's effectiveness in acquiring information and their success in obtaining essential resources. These mediators may interfere between the entrepreneurs' social skills and their new venture performance. However, unlike in previous researches, conducted in the American and Chinese contexts (focusing especially on social perception, social adaptability, impression management and expressiveness), we have chosen to emphasize social competencies which are the most relevant in the Tunisian High-Technology context: Persuasiveness, emotional intelligence and impression management.

Moreover, we aim at shedding new light on the central role of entrepreneur's social capital.

Baron and Marksman's (2003) assumption indicates that "social capital may well exert its primary impact early in the process ... whereas the effects of social skills in interacting may persist and continue to shape the nature of the entrepreneurs' relations with such persons on a long-term basis". However, we provided several lines of evidence for predicting that, even in the survival/development stage of the entrepreneurial process (which is a problematic phase). Hence, the entrepreneur requires some support from his acquaintances to expand his activities. On the basis of an extensive body of research advancing that social capital enhances the entrepreneurs' access to relevant resources (financial and informational resources), we believe, as mentioned earlier, that specific social skills have a great influence not only on access to the required resources, but also on the development of entrepreneurial social capital. In this perspective, three sets of testable hypotheses were proposed leading to three clusters of results.

First, the hypotheses proposed on the basis of Baron and Tang's reasoning support that the specific social skills we have mentioned above, especially social persuasion, exert strong effects on the access to outside resources. Access to the relevant information is gained essentially through ingratiation, but also by social persuasion; however, access to financial resources is facilitated only by persuasiveness. These findings aren't surprising because access to financing depends a lot on the venture capitalists' decisions and their mental analysis process. Venture capitalists accept to invest in a new project, accept the risk and sign on an ambiguous deal once entrepreneurs convince them of their project value. In other words, thanks to their ability to come up with logical and structured arguments, talented entrepreneurs become more likely to attract the key investors and induce positive reactions on them (Cable and Shane, 2002; Batjargal and Liu, 2004; Zacharakis et al, 2007).

Second, the presented hypotheses support that persuasiveness and personal emotional intelligence are significantly and positively related to the social capital, while ingratiation has no impact on the development of the social capital. In the Tunisian business context, it seems that key persons, such as venture capitalists, customers, suppliers or other professional contacts, aren't very tempted by flattery, liking or other-enhancement efforts and tactics which come from the entrepreneur. These persons are, however, influenced by the entrepreneurs' proficiency at social persuasion and personal emotional intelligence. In this perspective, it is important to underline that the entrepreneurs' personal emotional intelligence, related to self-confidence, self-efficacy, emotional self-control and self-assessment, exerts a strong impact on the development of their social capital ($\beta = 64.6\%$). This means that the more the entrepreneur is self-confident and emotionally intelligent, the greater the contacts he will have (especially weak and diversified, non redundant ties, which are more important and beneficial than strong ties in turbulent and uncertain sectors, such as the High-Technology field (Elfring and Hulsink, 2003; Bhagavatula and al, 2010).

Finally, the results support the prediction that social capital contributes to the access to financing as well as useful information. Unlike previous studies, which underlined especially that strong ties are more likely to enhance access to financial resources (Cable and Shane, 2002; Batjargal and Liu, 2004), this current research indicates that, even if the social capital, is made up of weak ties, it could facilitate the entrepreneur's access to equity funds. However,

the low value of R^2 associated to access to financing could be explained by the fact that strong ties are more likely to influence access to financial resources.

The hypothesis suggested to support the relationship between the social capital and access to the relevant information is supported. This result confirms the previous findings indicating that weak and non redundant ties have a positive impact on the access to useful information (Seibert and al, 2001).

6. Conclusions, limitations and implications for future researches

The findings of the present research have several important implications.

First, at the broader level, this study explains the process by which entrepreneurs can gain access to vital resources at a critical stage of the entrepreneurial process: the survival/development of the new venture. At this phase, entrepreneurs encounter several problems such as resources scarcity, uncertainty, and lack of legitimacy ...and therefore have to enhance their access to key persons and key resources in order to tackle such problems and attain viability and performance.

Effective tactics based on social persuasion, personal emotional intelligence and other enhancement efforts have largely been developed by psychologists and even professionals to improve careers' success. This current research is consistent with the growing argument which advanced that such techniques could also be used in guiding training programs dedicated to entrepreneurs in order to enhance their social effectiveness at interaction and communication with people from a wide range of backgrounds and cultures, enabling them to avoid social errors and achieve their goals in different social settings.

Second, this present study adds new findings to the existent body of knowledge by exploring the way by which specific social skills assist entrepreneurs in enlarging their social capital. In other words, we have helped to shed some light on the slight theoretical framework dedicated to the relationship between social skills and social capital. Indeed, some previous studies conducted by Baron and Markman (2000), Baron and Markman (1998, 2003) have indicated that socially skilled entrepreneurs are more likely to have high levels of social capital, without providing any empirical support. The current research provides some empirical evidence concerning the impact of several social skills (especially persuasiveness and personal emotional intelligence) on the enlargement of the entrepreneurial social capital. This capital measure is based on the network extension as well as on the number of weak and non redundant ties. In this way, we attempted to offer some practical understanding of the process by which social factors adhere to raise High-Technology entrepreneurs' access to outside paramount resources.

Third, the previous researches conducted especially by Baron and Markman (1998, 2003), Baron (2004), and Baron and Brush (1999) emphasized the positive impacts that the social skills exert on the entrepreneurs' financial success and new venture performance, in different industries, such as Cosmetics, Biotechnology, High-Technology. More recently, Baron and Tang (2009) have based their suggestions on the role that the social capital plays in moderating the effects of social skills on the access to essential resources (human, financial and informational resources). Consistent with their findings, we have chosen to focus on the impact of social skills on the access to resources which are crucial for the survival/development of a Tunisian high-tech new venture. These resources are useful information and financing. Efforts along these lines would arm such entrepreneurs with social tools in order to enhance their success and relieve economic growth.

We believe that this study has also some limitations that should be mentioned as follows.

First, there is a bias impact of some measures related to social competencies and social capital in the sense that social skills measures are based on Likert-scale responses and provided, in a part, by experts and entrepreneurs interviewed in the qualitative research. Besides, while the social capital has been measured by referring to weak, professional and non redundant ties that an entrepreneur had built during his entrepreneurial process; other researchers have assessed social capital with strong and tense ties, especially when talking about its effects on financial success (Hansen, 1999; Jensen and Greve, 2002; Inpken and Tsang, 2005). Thus, it is worth noting how our measures of social capital and Batjargal and Liu's ones differ, but complement one another regarding the results they provide for access to financing. In a similar manner, other researchers underlined that social capital should be approached either by strong and dense ties it involves, or by the mix of weak/strong ties it includes (Hite and

Hesterly, 2001; Elfring and Hulsink, 2003). That's why another perspective could be oriented to the measurement of social capital by the mix of strong and weak ties it encompasses in order to study their joint benefits on the entrepreneurial success.

A second empirical limitation that could be addressed in the future is related to the investigation period in which the data was taken. Our research was conducted at a definite time, with reference to the cross-sectional method. It didn't allow us to assess the entrepreneur's social competencies and social capital level at various and successive points in time. It is so recommended to carry out a longitudinal analysis to outline the enlargement of the social capital and the resources gained through time, as long as the social skills are developed.

Third, the present findings are related only to the Tunisian High-Technology sector. Therefore, we cannot confirm whether the specific social skills we have mentioned (ig., persuasiveness, personal emotional intelligence and ingratiation) are relevant ones in other fields.

An additional stream of researches would be addressed to other contexts to replicate our findings in other sectors. Hence, it is recommended that several lines of researches explore the process by which proficiency at social interaction would enlarge the social capital of the entrepreneur and ease his access to essential resources in other fields, such as Agriculture, Industry and Biotechnology.

REFERENCES

- [1] Adler, P.S. & Kwon, S.W. 2002. Social capital: prospects for a new concept. *Academy of Management Review*, 27 (1): 17-40.
- [2] Aldrich, H.E., & Fiol, C.M. 1994. Fools rush in? The institutional context of industry creation. *Academy of Management Review*, 19 (4): 645-670.
- [3] Baker, W.E. 1990. Market Networks and Corporate Behavior. *American Journal of Sociology*, 96 (3): 589-625.
- [4] Bandura, A. 2001. Social cognitive theory: An agentic perspective. *Annual review of psychology*, 52: 1- 26, Palo Alto, CA: Annual Reviews;
- [5] Bandura, A. 1995. *Self-efficacy in changing societies*. New York: Cambridge University Press.
- [6] Barney, J.B. 1991. Firm resources and sustain of competitive advantage. *Journal of Management*, 17: 99-120.
- [7] Barney, J.B. 1986. Strategic factor markets: expectations, luck, and business strategy. *Management Science*, 10: 1231-1241.
- [8] Bar-On, R. 2005. The Bar-On model of emotional-social intelligence, In P. Fernández-Berrocal and N. Extremera (Guest Editors). *Special Issue on Emotional Intelligence. Psicothema*, 17.
- [9] Baron, A.R. 2004. The Potential Role of Entrepreneurs' Social Skills in the Success of New Ventures: Why the Ability to Get Along with Others Really Matters, in Carter.W.G, Shaver.K.G., Carter.N.M., & Reynolds.P.D. (eds.). *Handbook of Entrepreneurial Dynamics: The Process of Business Creation*, Sage. 220-233.
- [10] Baron, A.R. 2004. Social skills. Chapter 21, in “handbook of entrepreneurial dynamics: the process of business creation”, by Gartner.W.B, Shaver, N. M & Carter. P. D, 220-233, Thousand Oaks: Sage.
- [11] Baron, R. & Brush, C. 1999. The role of social skills in entrepreneur’s success, <http://www.babson.edu>; Babson Conference.
- [12] Baron, A.R. & Markman, G.D. 2000. Beyond social capital: how social skills can enhance entrepreneurs’ success. *Academy of Management Executive*, 14 (1): 106-116.
- [13] Baron, A.R. & Markman, G.D. 2003. Beyond social capital: The role of entrepreneurs’ social competence in their financial success.*Journal of Business Venturing*, 18: 41-60.
- [14] Baron, A.R. & Tang, J. 2009. Entrepreneurs’ social skills and new venture performance: mediating mechanisms and cultural generality. *Journal of Management*, Sage Publications, 35 (2): 282-306.
- [15] Batjargal, B. & Liu, M. 2004. Entrepreneurs' access to private equity in China: the role of social capital. *Organization Science*, 15 (2): 159-200.
- [16] Bhagavatula, S., Elfring, T, Tilburg, A.V., & Bunt, G.G.V.D. 2010. How social and human capital influence opportunity recognition and resource mobilization in India’s handloom industry. *Journal of Business Venturing*, 25: 245-260.
- [17] Bolino, M.C., & Turnley, W. H. 1999. Measuring impression management in organizations: A scale development based on the Jones and Pittman taxonomy», *Organizational Research Methods*, 2:187-206.
- [18] Bolino, M.C, Turnley, W.H. & Bloodgood, J.M. 2002. Citizenship Behavior and the Creation of Social Capital in Organizations. *The Academy of Management Review*, 27(4): 505-522.
- [19] Borgatti, S.P., Everett, M.G. & Freeman, L.C. 2002. *Software for social Networks Analysis*, www.analytictech.com.
- [20] Burt, R. 1992. *Structural holes, the social structure of competition*. Harvard University Press, Cambridge.
- [21] Burt, R. 1997. A note on social capital and network content. *Social Networks*, 19(4): 355-373.
- [22] Burt, R. 2000. The Network Structure of Social Capital. Chapter Book in « Research in Organizational Behavior», 22, edited by Sutton.RI. and Staw.B.M., Greenwich, CT: JAI Press. Bruderl, J. & Preisendorfer, P. 1998. Network Support and the success of newly founded businesses. *Small Business Economics*. 10: 213-225.
- [23] Brush, C. 1992. Market place information scanning activities of new manufacturing ventures. *Journal of Small Business Management*, 41-53.
- [24] Bruyat, C. & Julien, P.A. 2001. Defining the field of research entrepreneurship. *Journal of Business*

- Venturing, 16: 165–180.
- [25] Cable, D.M., & Shane, S. 1997. A Prisoner's Dilemma Approach to Entrepreneur-Venture Capitalist Relationships. *Academy of Management Review*, 32(1): 142–176.
- [26] Cantner, U. & Stutzer, M. 2010. The use and affect of social capital in new venture creation-solo entrepreneurs versus new venture teams. *Jena Economic Research Papers 2010-2012*, Germany.
- [27] Carter, N.M., Gartner, W.B., Reynolds, P.D. 1996. Exploring start-up event sequences. *Journal of Business Venturing*, 11: 151–166.
- [28] Caruso, D.R., Mayer, J.D. & Salovey, P. 2002. Relation of an ability measure of emotional intelligence to personality. *Journal of personality assessment*, 2: 306-320.
- [29] Chin, W.W. 1998. Issues and opinion on structural equation modeling. *MIS Quarterly*, 22,1: 7–16.
- [30] Chin, W.W., Marcolin, B.L., & Newsted, P.R. 1996. A partial Least Squares latent variable modeling approach for measuring interaction effects: results from a Monte Carlo simulation study and voice mail emotion/adoption study. *Proceedings of the seventeenth International Conference on Information Systems*, Cleveland, Ohio, 21-41.
- [31] Cialdini, R. B. 1994. Interpersonal Influence. In N. S. Shavitt, & T. C. Brock (Eds.), *Persuasion: Psychological Insights and Perspectives*, pp.195–218, Boston: Allyn & Bacon.
- [32] Cialdini, R. B. 2000. *Influence: Science and practice*. 4th ed, Boston: Allyn & Bacon.
- [33] Cohen, J. 1988. *Statistical Power Analysis for the Behavioral Sciences*. Lawrence Erlbaum, Hillsdale, NJ.
- [34] Coleman, J.S. 1990. *Foundations of Social Theory*. Harvard University Press. Cambridge, M.A.
- [35] Cooper, A. C., Gimeno-Gascon, F. J. & Woo, C. Y. 1994. Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, 9(5): 371-395.
- [36] Decaloris, D.M., Litzky, B.E., & Eddelston, K.A. 2009. Why networks enhance the progress of new venture creation: the influence of social capital and cognition. *Entrepreneurship Theory and Practice*, 527-545.
- [37] Diener, E. & Seligman, M.E.P. 2002. Very Happy People. *Psychological Science*, 13: 80-83.
- [38] Dillard, J.P. 2004. The Goals-Plans-Action model of interpersonal influence. In: Seiter J.S. & Gass, R.H. (eds), *Perspectives on persuasion, social influence, and compliance gaining*. Boston; New York; San Francisco: Pearson Education, Inc.
- [39] Dillard, J.P. & Marshall, L.J. 2003. Persuasion as a social skill. In Greene, J.O. & Burleson, B.R. (eds). *Handbook of communication and social interaction skills*. London: Lawrence Erlbaum Associates Publishers.
- [40] Dubini, P. & Aldrich, H. 1991. Personal and extended networks are central to the entrepreneurial process. *Journal of Business Venturing*, 6: 305-313.
- [41] Elfring, T. & Hulsink, W. 2003. Networks in entrepreneurship: The case of high technology firms. *Small Business Economics*, 21(4): 409-422.
- [42] Ewart, C. K., Jorgensen, R. S., & al. 2002. Measuring stress resilience and coping in vulnerable youth: the social competence interview. *Psychological Assessment*, 14 (3): 339-352.
- [43] Fayolle, A. 2007. *Entrepreneurship and new venture creation; the dynamic of the entrepreneurial process*. Cambridge: Cambridge University Press.
- [44] Fayolle, A. & Bruyat, C. 2002. A conceptual and methodological framework to study, using the modeling of complex system, the foundation and the development processes of innovative business activities. *CERAG*, 2002–33.
- [45] Ferris, G.R., Witt, L.A., & Hochwarter, W.A. 2001. Interaction of social skill and general mental ability on job performance and salary. *Journal of Applied Psychology*, 86: 1075-1082.
- [46] Ferris, G.R., Treadway, D.C., Kolodinsky, R.W., Hochwarter, W.A. & Kacmar, C.J. 2005. Development and validation of the political skill inventory. *Journal of Management*, 31: 126-152.
- [47] Ferris, G. R., Davidson, S. L., & Perrewé, P. L. 2005. *Political skill at work: Impact on work effectiveness*. Mountain View, CA: Davies-Black.
- [48] Florin, J., Lubatkin, M., & Schulze, W. 2003. A social capital model of high-growth ventures. *Academy of Management Journal*, 46(3): 374-384.
- [49] Gardner, H. 2004. *Changing minds: The art and science of changing our own and other people's minds*. Boston: Harvard Business School Press.

- [50] Garnsey, E. 1998. A theory of the early growth of the firm. *Ind. Corp. Change*, 13(3): 523–556.
- [51] Gartner, W.B., Bird, B.J. & Starr, J.A. 1992. Acting as if: differentiating entrepreneurial from organizational behavior. *Entrepreneurship Theory and Practice*, 16(3): 13-31.
- [52] Gefen, D. & Straub, D. 2005. A practical guide to factorial validity using PLS-Graph: tutorial and annotated example. *Communications of the Association for Information Systems (AIS)*, 16: 91-109.
- [53] Goleman, D. P. 1995. *Emotional Intelligence: Why It Can Matter More Than IQ for Character, Health and Lifelong Achievement*. Bantam Books, New York.
- [54] Goleman, D. 1998. Emotional Intelligence That Lead to Success. *EI2*: 9-42.
- [55] Goleman, D.P., Boyatzis, R.E., & MckKee, A. 2002. *Primal Leadership: Realizing the power of Emotional Intelligence*. Harvard Business School Press, First Edition.
- [56] Groen, A. J. 2005. Knowledge Intensive Entrepreneurship in Networks: Towards a Multi-Level/Multi Dimensional Approach. *Journal of Enterprising Culture*, 13(1): 69-88.
- [57] Hall, J. & Hofer, C.W. 1993. Venture capitalists' decision criteria in new venture evaluation. *Journal of Business Venturing*, 8(1): 25-42.
- [58] Hansen, M.T. 1999. The search transfer problem: The role of weak ties in sharing knowledge across organizational sub-units. *Administrative Science Quarterly*, 44: 82-111.
- [59] Henseler, J., Ringle, C.M., & Sinkovics, R.R. 2009. The use of Partial Least Squares path modeling in international Marketing. *Advances in international Marketing*, 20: 277-319.
- [60] Hite, J.M. & Hesterly, W.S. 2001. The evolution of firm networks: from emergence to early growth of the firm. *Strategic Management Journal*, 22(3): 275-286.
- [61] Inkpen, A.C. & Tsang, E.W. 2005. Social capital, networks, and knowledge transfer. *Academy of Management Review*, 30(1): 146-165.
- [62] Jensen, J. & Greve, A. 2002. Does the degree of Redundancy in Social Networks influence the success of business start-ups? *International Journal of Entrepreneurial Behavior and Research*, 8(5): 254-267.
- [63] Johannisson, B. 2000. *Networking and Entrepreneurial Growth*. Blackwell Handbook of Entrepreneurship, Malden, MA. Blackwell Publishers Inc., 368-386.
- [64] Lee, Y.W., Strong, D.M, Kahn, B.K., & Wang, R.Y. 2002. AIMQ: a methodology for information quality assessment. *Information and Management*, 40: 133-146.
- [65] Lender, C. 2003. *Management Professionals and Funding of University Business Incubators Worldwide*. The 48th ICSB Conference Proceedings, Belfast, Ireland.
- [66] Liao, J. & Welsch, H. 2005. Roles of social capital in venture creation: Key dimensions and research implications. *Journal of Small Business Management*, 43(4): 345-362.
- [67] Lin, N. 2001. *Social Capital: a theory of social structure and action*. Cambridge, Cambridge University Press.
- [68] Loury, G.C. 1992. The economics of discrimination: getting to the core of the problem. *Harvard Journal of African American Public Policy*, 1: 91-110.
- [69] Markman, G.D & Baron, R.A. 1998. Social Skills and Entrepreneur's Financial Success : Evidence that the Ability to get along with others Really Matters. In Reynolds et al (Eds), *Frontiers of Entrepreneurship research*, 88-102, Babson Parke, MA, Babson College.
- [70] Mayer, J.D. & Salovey, P. 1995. Emotional Intelligence and the construction and regulation of feelings. *Applied and Preventive Psychology*, 4: 197-208.
- [71] Mayer, J.D. & Salovey, P. 1997. What is Emotional Intelligence?. In Salovey .P. & Sluyter, D. (Eds). *Emotional Development and Emotional Intelligence, Implications for educators*, 3-31, New York: Basic Books.
- [72] Nahapiet, J. & Goshal, S. 1998. Social capital, intellectual capital and the organizational advantage. *The Academy of Management Review*, 23(2): 242-266.
- [73] Neergaard, H., & Madsen, H. 2004. Knowledge intensive entrepreneurship in a social capital perspective. *Journal of Enterprising Culture*, 12(2): 105-125.
- [74] Nunnally, J.C. 1978. *Psychometric Theory*. McGraw-Hill, New York.
- [75] Ozgen, E. & Baron, R.A. 2007. Social sources of information in opportunity recognition: effects of mentors, industry networks, and professional forums. *Journal of Business Venturing*, 22: 174-192.

- [76] Perrewé, P.P. & al. 2000. Political skill: An antidote for workplace stressors », *The Academy of Management Executives*, 14(3): 115-123.
- [77] Podsakoff, P.M., Mackenzie, S.B., Lee, J-Y. & Podsakoff, N.P. 2003. Common method bias in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5): 879-903.
- [78] Putnam, R.D. 1993. The Prosperous Community- Social Capital and Public Life. *The American Prospect*, 4, 13.
- [79] Ravasi, D. & Turati, C. Exploring entrepreneurial learning: a comparative study of technology development projects. *Journal of Business Venturing*, 20: 137-164.
- [80] Riggio, R.E. 1986. Assessment of basic social skills. *Journal of Personality and Social Psychology*, 51: 649-660.
- [81] Riggio, R.E., Watring, K.P., & Thockmorton, B. 1993. Social skills, social support, and psychological adjustment. *Journal of Personal Individual Differences*, 15(3): 275-280.
- [82] Ringle, C.M. 2004. Gütemaße für den partial least squares-ansatz zur bestimmung von kausalmodellen. Working Paper 16, Universität Hamburg, Institut für Industriebetriebslehre und Organisation.
- [83] Soros.G. 1987. *The Alchemy of Finance*. New York, 1994.
- [84] Schlenker, B.R. 1980. *Impression management: The self-concept, social identity, and interpersonal relations*. Monterey, CA: Brooks/Cole Publishing.
- [85] Stuart, T.E. & Sorenson, O. 2005. Social networks and entrepreneurship. Chapter 10 in the handbook of entrepreneurship, pp211-228.
- [86] Seibert, B; Kraimer, M.L. & Liden.R.C. 2001. A social capital theory of career success. *Academy of Management Journal*, 44, 2, pp.219-237.
- [87] Shane, S. 2003. *A general theory of entrepreneurship*», Northampton, MA: Edward Edgar.
- [88] Shane.S, & Cable.D. 2002. Network ties, reputation and the financing of new ventures. *Management science*, 48(3): 364-381.
- [89] Stuart.T.E. and Sorenson.O. 2005. Social networks and entrepreneurship. Chapter 10 In « the handbook of entrepreneurship, 211-228.
- [90] Stvilia, B; Gasser, L., Twidale, M.B., & Smith, L. 2007.A framework for Information QualityAssessment, *Journal of American Society for Information Science and Technology*, 58: 1720-1733.
- [91] Thorndike.R. L. 1920. Intelligence and its use. *Harper's Magazine*, 140: 227-235.
- [92] Timmons, J.A. 1994. *New venture creation: Entrepreneurship for the 21st century*. 6th edn. Boston, MA: McGraw-Hill.
- [93] Tornikoski, E.T. & Scott, L.N. 2007. Exploring the determinants of organizational emergence: a legitimacy perspective. *Journal of Business Venturing*, 22: 311-335.
- [94] Tsai, W.P. & Ghoshal, S. 1998. Social capital and value creation: the role of intrafirm networks. *Academy of Management Journal*, 41(4): 464-476.
- [95] Urbach, N. & Ahlemann, F. 2010. Structural Equation modeling in information systems –Research using Partial Least Squares, *Journal of Information Technology Theory and Practice*, 11: 5-40, Issue 2.
- [96] Uzzi, B. & Lancaster, R. 2003. Relational embeddedness and learning: the case of bank loan managers and their clients. *Management Science*, 49, 4: 383-399.
- [97] Wayne, S. J., & Liden, R. C. 1995. Effects of impression management on performance effects of impression management on performance ratings: A longitudinal study. *Academy of Management Journal*, 38: 232-260.
- [98] Wayne, S. J., Liden, R. C., Graf, I. K., & Ferris, G. R. 1997. The role of upward influence tactics in human resource decisions. *Personnel Psychology*, 50: 979-1006.
- [99] Witt.L.A. & Ferris.G.R. 2003. Social skill as moderator of the conscientiousness-performance relationship: convergent results across four studies. *Journal of Applied Psychology*, 88: 809-820.
- [100] Yli-Renko, H., Autio, E., & Sapienza, H. 2001. Social capital, relational Learning, and Knowledge Distinctiveness in Technology-Based new firms. Babson Conference.
- [101] Zacharakis, A.L., & Meyer, G.D. 1995. The venture capitalist decision: understanding process versus

- outcome. In Hornaday.J., Tarpley.F., Timmons.J., and Vesper.K. (Eds). *Frontiers of Entrepreneurship Research*, Wellesley, MA: Babson College.
- [102] Zacharakis, A.L., McMullen, J.S., & Shepherd, D.A. 2007. Venture Capitalists' Decision Policies across Three Countries: An Institutional Theory Perspective. *Journal of International Business Studies*, 38(5): 691-708.
- [103] Zhu, K., Kraemer.K.L. Gurbaxani.V. and S.X.Xu. 2006. Migration to open-standard interorganizational systems: Network effects, switching costs, and path dependency. *MIS Quarterly*, 30: 515–539, Special Issue.

Antecedents of Entrepreneurial Activity: Theory & Evidence from Asia

*Justin Paul, profjust@gmail.com justin.paul@upr.edu
Graduate School of Business Administration
University of Puerto Rico, USA*

*Archana Srivatava, archanashri@yahoo.com
Velloor Institute of Technology, Madras, India*

Antecedents of Entrepreneurial Activity: Theory & Evidence from Asia

Abstract

Purpose - In this paper, we attempt to compare entrepreneurial attributes of MBA students, the next generation business people, from two important Asian countries, India from South Asia and Japan from East Asia (India, being an emerging country and Japan, a developed country).

Design/ Methodology/ Approach - A survey was conducted among MBA Students in India and Japan and they were measured on entrepreneurial personality index and a comparison exercise was undertaken done to understand whether entrepreneurial traits are innate personality factors or learned cultural behaviour. For the proactive personality measurement, Bateman and Crant's (1993) questionnaire, consisting of seventeen traits is used.

Findings - The findings indicate that although, India has established itself in Information technology and information enabled services primarily through entrepreneurship, the country still has to go a long way as compared to developed countries such as Japan where entrepreneurship is widespread.

Research Limitations/ Implications- The results contribute to the development of theoretical and knowledge bases, that will be of interest to research and policy communities. However, the results are limited to a single survey, using cross-sectional data.

Practical Implications - Both, the causes and consequences of entrepreneurship are a matter of extensive scientific debate as well as of great policy importance. A high level of entrepreneurial activity is assumed and shown to contribute to innovative activities, competition, economic growth and job creation. The main goal is to examine if an entrepreneurial activity is related to business acumen imbibed through society and culture or is it an innate personality factors in a country context.

Originality / Value - The level of entrepreneurship differs considerably across countries and periods. We put forward a theoretical framework to denote the linkage between entrepreneurial attitude, proactive personality and culture in this study.

Keywords: Entrepreneurship, Proactive personality, India and Japan, Culture.

Introduction

The entrepreneur is an economic person, who tries to maximize his profits by innovation. Innovations involve problem solving and the entrepreneur gets satisfaction in solving problems (Higgins, 1964). It has been revealed from research that people who choose entrepreneurial careers look for greater financial and psychological rewards than regular employment. Entrepreneurship is measured by self-employment and has become an increasingly prominent characteristic of industrialised economies. The definition of an entrepreneur has evolved in last three centuries, from someone who bears risk by buying at a low price and selling at a higher price; to the creation of new enterprises of which the entrepreneur is the founder. An entrepreneur is driven by motivation. According to McClelland (1961) and Say (1963), an entrepreneur is one who brings together the factors of production, provisions of continuing management as well as risk bearing. Schumpeter (1950) envisioned that an entrepreneur is the agent who provides an economic leadership that changes the initial conditions of the economy and causes this discontinuous dynamic change. Entrepreneur is considered as an innovator (Tamizharasi G and Panchanatham N , 2010).

Entrepreneurship is gaining increasing respect from the scholars as a field of research as well as practical application worldwide as a means to achieve wealth creation and personal fulfilment (Ma and Tan, 2006). History has proven that with each economic downturn,

it is the entrepreneurial drive and persistence that brings us back (Kuratako, 2006). Entrepreneurship has attained a special importance in the control of economic growth and industrial development in the rapidly changing socioeconomic and socio-cultural climates both in the developed and developing countries (Tamizharasi G and Panchanatham N, 2010).

The study of entrepreneurship has relevance today, not only because it helps entrepreneurs better fulfil their personal needs but also, because of the economic contribution of the new ventures. More than increasing national income by creating new jobs, entrepreneurship acts as a positive force in economic growth by serving as the bridge between innovation and market place. Entrepreneurship is often viewed as a catalyst for economic

growth. Through innovation, hard work, and a willingness to accept financial risk, the entrepreneur takes advantage of previously undiscovered opportunities for arbitrage and profit (Kirzner, 1997). This quest for profit, and the possibility of personal and financial failure, aid in ensuring that an economy's resources are used efficiently. Successful entrepreneurs provide employment opportunities to others, generate innovation, spur economic growth, and contribute to state and local governments in the form of tax revenue.

Research revealed that some common traits of entrepreneurs are the capacity to innovate, to bear risks, to foresee the prospects of the project, confidence and competence to meet unforeseen and adverse conditions. But can these traits be generalized across countries and culture? In the current scenario, we have a broad spectrum of different countries with respect to the economic structure and cultural factors.

Entrepreneurial Attitude

Attitude differs across individuals. Attitudes are not permanent features. Attitude is defined as a mental and neural state of exerting readiness, organized through experience, exerting a directive or dynamic influence upon the individuals with regards to all objectives and situation, Allport (1935). Stimpson *et al.* (1991) reported that entrepreneurial attitude orientation consists of four broad dimensions such as achievement, self esteem, personal control and innovation. There was considerable difference in all four dimensions of the discriminate functional analysis of entrepreneurs and non-entrepreneurs. The scores of entrepreneurs were significantly higher in innovation, achievement and personal control. Both groups however showed marginal difference on self-esteem (Tamizharasi G and Panchanatham N, 2010).

An entrepreneurial attitude can be understood as the desire of starting one's own business. Entrepreneur risks time and money in search of opportunities to create value. Creativity and proactive behaviour are the underlined preconditions. The concept of entrepreneurial leadership has become increasingly important because organizations must be more entrepreneurial to enhance their performance, and to improve their capacity for adaptation and long-term survival. Proactive individuals may be more successful in entrepreneurial leadership and may contribute more to the organization. In recent times organizations are keen on hiring employees who have entrepreneur traits because of their belief that such people can bring changes by finding innovative solutions and new practices (Victor et al, 2009). They are pathfinders who change their organization's mission or find and solve problems (Durand & Shea 1974).

Harris, Michael and Gibson, Shanon (2008) examined the entrepreneurial attitudes of undergraduate students enrolled at multiple universities in the USA their result indicated that majority of students possessed entrepreneurial attitudes. Furthermore, both student characteristics and entrepreneurial experience were found to be associated with certain entrepreneurial attitudes. Lajovleva, Kolvareid and Stephan (2011) used The theory of Planned Behaviour to predict entrepreneurial intentions among students in five developing and nice developed countries. The findings indicate that respondents from developing countries have stronger entrepreneurial intentions than those from developed countries. Moreover, the respondents from developing countries also score higher on the theory's antecedents of entrepreneurial intentions – attitudes, subjective norms and perceived behavioural control – than respondents from developed countries. The findings support the Theory of Planned Behaviour in developing and developed countries.

Proactive persons identify opportunities and take initiative. They keep trying to bring change (Crant, 1996). The proactive dimension of behaviour in an entrepreneur is inherent in fulfilling the needs to manipulate and control the environment. The proactive personality index is a great contribution to the literature and has the potential for bringing better understanding into the personality and entrepreneurship relationship. Proactive personality measurement assesses a person's disposition toward proactive behaviour. Studies done by J. Michael Crant and Thomas S. Bateman suggest that the proactive personality index may be useful in identifying people with the personality variables predictive of entrepreneurial behaviour (Higgins 1964).

Proactive Personality

Bateman and Crant (1993) developed the proactive personality concept, defining it as a relatively stable tendency to effect environmental change that differentiates people based on the extent to which they take action to influence their environments. Individuals with a prototypical proactive personality identify opportunities and act on them, show initiative, take action, and persevere until meaningful change occurs (Crant, 2000.). In contrast, people who are not proactive exhibit the opposite patterns: they fail to identify, let alone seize, opportunities to change things. Less proactive individuals are passive and reactive, preferring to adapt to circumstances rather than change them (Crant, 2000). As work becomes more dynamic and decentralized, proactive behaviour and initiative become even more critical determinants of organizational success. For example, as new forms of management are introduced that minimize the surveillance function, companies will increasingly rely on employees' personal initiative to identify and solve problems (Michael Frese, Doris Fay, Tanja Hilburger, Karena Leng, Almut Tag, 1997).

Crant (2000) defined proactive behaviour as taking initiative in improving current circumstances or creating new ones; it involves challenging the status quo rather than passively adapting to present conditions. Employees can engage in proactive activities as part of their in-role behaviour in which they fulfill basic job requirements (Crant, 2000). For example, sales agents might proactively seek feedback on their techniques for closing a sale with an ultimate goal of improving job performance.

Extra-role behaviours can also be proactive, such as efforts to redefine one's role in the organization. For example, employees might engage in career management activities by identifying and acting on opportunities to change the scope of their jobs or move to more desirable divisions of the business (Crant, 2000). Crant (1995) demonstrated that proactive personality accounted for incremental variance in the job performance of real estate agents after controlling for both extraversion and conscientiousness. Proactive personality seems more specifically tailored to predicting motivation in learning contexts than the more general Big Five factors and facets (Major, Turner & Fletcher 2006). Proactive personality appears to have the potential for providing further insight into the personality trait- entrepreneurship relationship (Crant, 1996). The proactive personality scale measures a personal disposition toward proactive behavior, an idea that intuitively appears to be related to entrepreneurship (Crant, 1996).

In a study conducted by Crant (1996) that examined the relationship between proactive personality and entrepreneurial intentions, proactive personality was positively associated with entrepreneurial intentions. This may also be the case for entrepreneurial leadership; because people with a proactive personality may be more inclined to mobilizing the resources and gaining the commitment required for value creation that the entrepreneurial leader faces. More proactive people may have a greater desire to become entrepreneurial leaders in order to help create value for their firm.

Framing the Entrepreneurial Context

India has emerged as second fastest growing economy in the world.. With GDP growing at 8+ percent, the Indian economy has recorded remarkable growth in exports, FDI etc compared to developed countries. According to the Global Entrepreneurship Monitor 2006, one in every ten Indians is engaged in some entrepreneurial activity or the other. India is ninth in the Global Entrepreneurship Monitor (GEM) survey of entrepreneurial countries. It is highest among 28 countries in Necessity based entrepreneurship, while 5th from the lowest in opportunity based entrepreneurship.

According to GEM (2009), countries are grouped into three stages of economic development as defined by the World Economic Forum's Global Competitiveness Report: factor-driven, efficiency-driven and innovation-driven. This classification in phases of economic development is based on the level of GDP per capita and the extent to which countries are factor driven in terms of the shares of exports of primary goods in total exports. Factor-driven economies are primarily extractive in nature, while efficiency-driven economies exhibit scale-intensity as a major driver of development. At the innovation-driven stage of development, economies are characterized by their production of new and unique goods and services that are created via sophisticated, and often pioneering, methods. As countries develop economically, they tend to shift from one phase to the next. India is still a factor driven economy.

The liberalization, which was started in 1991 and the Information Technology boom during the second half of the 1990's, have been significant factors, leading to a wave of entrepreneurship sweeping through the Indian sub-continent.

A lot of entrepreneurship activity is centred on the IT (Information Technology) industry in India; but, there are a few outstanding examples in other fields. This new breed of entrepreneurs seems to make their own rules and revolutionized the way business was done. They used a winning combination of customer insight, industry knowledge, and out of the box thinking to create winning innovations. To a large extent, the society appears to be risk averse in India. People in India, compared to Japan usually seek secure and long-term employment, such as government jobs. Social Attitudes, lack of capital, inadequate physical infrastructure and lack of government support are major factors of hindrance. Japan has the second largest economy in Asia, whereas India is ranked as Asia's third largest economy. The liberalization of the economy in the 1990s has paved the way for a huge number of people to become entrepreneurs. The Government has encouraged entrepreneurship by providing training and also the facilities to succeed, particularly in the rural areas. One style of innovation that really works in a country as large and diverse as India is grassroots innovation.

India, with its abundant supply of talent in IT, management, and R&D, has become the hot bed of outsourcing of services from all parts of the globe where companies can reduce their costs. On the other hand entrepreneurial waves date back to 1950's and 1960's, in Japan when Japanese society and government undertook efforts for growth with slogans such as "Sell to the strangers", "Double income", and "Export led growth model"

The Indian entrepreneurs appear to think big and gone global in the recent years whereas lot of Japanese firms had gone global and growth global in 1970s and 1980s. The recent spate of global acquisitions by Indian industry leaders has forced the business community the world over to sit up and take notice of Indian economic power. The Tata-Corus deal set the tone and was followed by

Birla's acquisition of Novelis. The policy changes enabled a scalable and sustainable model for creating a new breed of entrepreneurs in the years to come. Access to seed capital is one of the key areas of potential investment. Venture Funds have entered the Indian market, but these funds are more focused on 'growth capital' rather than 'seed capital'.

Three pillars of Entrepreneurship

Today's knowledge based economy is a fertile ground for entrepreneurs. Therefore, we feel that it is important to create the following 3 pillars which in turn would help grooming successful entrepreneurs. This theoretical proposition can be depicted as Figure 1.

Pillar 1. Right Business Environment for Success:

Entrepreneurs have taken the following steps to achieve success in the past. In countries such as India the firms start slow with capital borrowed from family and friends, the CEO playing the role of salesman and strategist.

Pillar 2. Access to 'Smart Capital':

For a long time, Asian entrepreneurs, particularly Indian entrepreneurs, have had little access to venture capital. It is true that in the last few years, several Venture Funds have entered the Indian Market. Venture capital funds in the form of seed capital is known as smart capital.

Pillar 3. Networking and Exchange:

Entrepreneurs learn from experience- their own and that of others. The rapid pace of globalization and fast growth of Asian economies present tremendous opportunities and challenges. Through planning and focus, entrepreneurs can aspire to create a pool of entrepreneurs who might be the region's –and the world's–leaders of tomorrow.

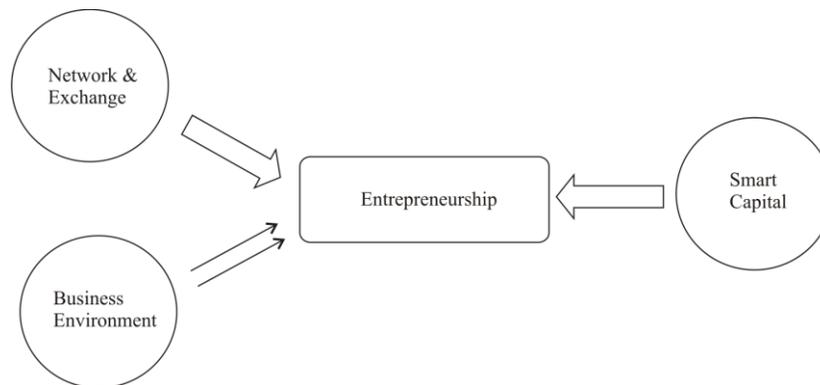


FIGURE 1 Three Pillars of Entrepreneurship
The framework developed by the author

In nutshell, it is worth noting that although the concept of entrepreneurial competencies is used widely by government agencies and others in their drive for economic development and business success, the core concept of entrepreneurial competencies, its measurement and its relationship to entrepreneurial performance and business success is in need for further rigorous research and development in practice (Mitchellmore, Siwan and Rowley, Jennifer, 2010).

Research Objectives

In this study, we compare entrepreneurial attitudes of MBA students in India with that of Japan. The main hypothesis is that proactive personality traits are greatly influenced by one's culture and not innate personality factors. If this is true, MBA students in an emerging economy such as India would not score as high on the proactive personality index as would MBA students of the developed countries where models of entrepreneurship are well established.

Methodology

An instrument containing 17 questions that measure proactive personality (Appendix A) was administered to 83 MBA students in India and in Japan. This self-report measure of proactive behavior was developed by Bateman and Crant to measure a person's disposition toward proactive behavior as a general construct that predicts behaviors intended to effect change (Schumpeter 1950).

An individual's total score will range between 17 and 119 on this instrument. The higher one's score, the stronger the proactive personality. Previous work by Bateman and Crant has determined that scores above 85 indicate fairly high proactivity. The average age in the sample is 23 years. We used SPSS to perform Independent Sample T Test on both the groups to find out if there is any statistically significant difference on each item of Bateman and Crant personality index.

Analysis

The overall average score on the Bateman and Crant instrument is 84.69 in the case of the MBA students in India. According to Bateman and Crant, this score is close to fairly high proactivity score 85. The MBA students in Japan scores 90.08 on Bateman and Crant's personality index that is much more than the Indian MBA students. The empirical findings in Table 1 shows scores of each group.

TABLE 1: Empirical Findings –Scores

		India	Japan
	Bateman and Crant Instrument	Average Score (N=83)	Average Score
1	I am constantly on the lookout for new ways to improve my life.	5.325301	6.27907
2	I feel driven to make a difference in my community and maybe the world.	4.626506	5.581395
3	I tend to let others take the initiative to start new projects	4.385542	4.465116
4	Wherever I have been, I have been a powerful force for constructive change.	4.614458	5.023254
5	I enjoy facing and overcoming obstacles to my ideas.	5.84337	5.255814
6	Nothing is more exciting than seeing my ideas turn into reality.	5.060241	5.534884
7	If I see something I don't like, I fix it.	4.554217	4.930233
8	No matter what the odds, if I believe in something, I will make it happen.	5.301966	5.325581
9	I love being a champion for my ideas, even against others' opposition.	5.169459	5.534884
10	I excel at identifying opportunities.	4.915663	5.046512
11	I am always looking for better ways to do things.	5.277108	5.674419
12	If I believe in an idea, no obstacle will prevent me from making it happen.	5.01494	5.204362
13	I love to challenge the status quo.	4.640964	4.813953
14	When I have a problem, I tackle it head-on.	5.001241	5.325581
15	I am great at turning problems into opportunities.	4.902439	4.860465
16	I can spot a good opportunity long before others can.	4.578313	5.023256
17	If I see someone in trouble, I help out in any way I can.	5.481928	6.209302
Sum		84.692415	90.088081

Individual questions with particularly high ratings (mean scores of 5.5 or higher on a 7-point Likert-type scale) of Indian students include:

- I enjoy facing and overcoming obstacles to my ideas.(5.84)

Individual questions with particularly high ratings (mean scores of 5.5 or higher on a 7-point Likert-type scale) of Japanese students include:

- I am constantly on the lookout for new ways to improve my life. (6.27)
- I feel driven to make a difference in my community and maybe the world. (5.58)
- Nothing is more exciting than seeing my ideas turn into reality. (5.53)
- I love being a champion for my ideas, even against others' opposition. (5.53)
- I am always looking for better ways to do things. (5.67)
- If I see someone in trouble, I help out in any way I can. (6.20)

We performed the T Test at 95% confidence interval to see whether there are any statistically significant differences between the scores on each item between the two groups of Indian MBA students and Japanese MBA students. Table 2 - shows the group statistics, mean, standard deviation and standard error of the two groups. Table 3 shows Independent Sample T Test.

TABLE 2: Group Statistics T-Test
Group Statistics

	Students	N	Mean	Std. Deviation	Std. Error Mean
I am constantly on the lookout for new ways to improve my life. Japan	India	83	5.325301	1.2698035	.1393790
	Japan	43	6.279070	.7343796	.1119918
I feel driven to make a difference in my India community and maybe the world. Japan	India	83	4.626506	1.3408301	.1471752
	Japan	43	5.581395	.8791922	.1340756
I tend to let others take the initiative to start new projects India initiative to start new projects Japan	India	83	4.385542	3.8661487	.4243649
	Japan	43	4.465116	1.5329529	.2337731
Wherever I have been, I have been a powerful force for constructive change. Japan	India	83	4.614458	1.3419255	.1472955
	Japan	43	5.023256	1.0575887	.1612808
I enjoy facing and overcoming obstacles to my ideas.	India	83	5.084337	1.3986476	.1535215
	Japan	43	5.255814	1.2168074	.1855614
Nothing is more exciting than seeing my ideas turn into reality.	India	83	5.060241	1.5409009	.1691358
	Japan	43	5.534884	1.1411948	.1740306
If I see something I don't like, I fix it.	India	83	4.554217	2.0674776	.2269352
	Japan	43	4.930233	1.3869348	.2115056
No matter what the odds, if I believe in something, I will make it happen.	India	83	5.301966	1.3294511	.1459262
	Japan	43	5.325581	1.2095046	.1844477
I love being a champion for my ideas, even against others' opposition.	India	83	5.169459	1.3574559	.1490001
	Japan	43	5.169459	1.3574559	.1490001

I excel at identifying opportunities.	India	83	4.915663	1.2897799	.1415717
	Japan	43	4.915663	1.2897799	.1415717
I am always looking for better ways to do things.	India	83	5.277108	1.2328161	.1353191
	Japan	43	5.674419	1.0628114	.1620772
If I believe in an idea, no obstacle will prevent me from making it happen.	India	83	5.014940	1.3021515	.1429297
	Japan	43	5.209302	1.1863939	.1809234
I love to challenge the status quo.	India	83	4.640964	1.3404619	.1471348
	Japan	43	4.813953	1.2199886	.1860465
When I have a problem, I tackle it head-on.	India	83	5.000000	1.3525045	.1484567
	Japan	43	5.325581	1.1489318	.1752105
I am great at turning problems into opportunities.	India	82	4.902439	1.2333809	.1362041
	Japan	43	4.860465	1.2263262	.1870130
I can spot a good opportunity long before others can.	India	83	4.578313	1.2407755	.1361928
	Japan	43	5.023256	1.0115611	.1542616
If I see someone in trouble, I help out in any way I can.	India	83	5.481928	1.2529131	.1375251
	Japan	43	6.209302	.9400643	.1433585

The table 2 describes the means and standard deviations of different items for the measurement of entrepreneurial attitude of each group: Indian MBA students and Japanese MBA students. The mean represent the average score of each item with the overall scores for the groups on a seven-point scale. To arrive at any conclusions that one group of students is significantly have more entrepreneurial attitude than another, we need to examine the statistical significance of the result (t-test information).

Table 3: Independent Sample T Test

For ease of accommodating large data on single page, instead of writing the complete item of Bateman and Crant Scale, we have used alphabets to represent the 17 items of Bateman and Crant personality index. The 17 items correspond to A to Q alphabet respectively. For example alphabet A correspond to item 1 i.e. “I am constantly on the lookout for new ways to improve my life” and alphabet B corresponds to “I feel driven to make a difference in my community and maybe the world” and so on.

An independent samples t-test was conducted to examine whether there was a significant difference in items of entrepreneurial attitude between Indian MBA students and Japanese students. The table 3 describes independent samples t-test information to ascertain whether there is a significant difference between the two groups in their entrepreneurial attitude. Before examining the t-test information, we must decide whether we can assume equal variances or not. Below the section of t-test for equality of means, we need to focus on the sig (2-tailed) column – this is the p-value.

The test revealed a statistically significant difference in the following items:

Item A: I am constantly on the lookout for new ways to improve my life.

The p-value (sig.) for item A for the Levene’s test is .001, it is below .05, hence we cannot assume equal variances, and the t value is

5.334. The p-value is .000 for the t-test for equality of means, here we are checking on the sig (2-tailed) column – this is the p-value. This p-value is related to independent samples t-test and shows that there is a significant difference between the two nationality groups with respect to item A. The table 1 shows the average score or means of items A as 5.32 for Indian students and 6.27 for Japanese students. Japanese students score significantly higher than the Indian students.

Item B: I feel driven to make a difference in my community and maybe the world.

The p-value (sig.) for item B for the Levene's test is .004, it is below .05, hence we cannot assume equal variances, and the t value is

4.79. The p-value is .000 for the t-test for equality of means, here we are checking on the sig (2-tailed) column – this is the p-value. This p-value is related to independent samples t-test and shows that there is a significant difference between the two nationality groups with respect to item B. The table 1 shows the average score or means of items B as 4.62 for Indian students and 5.58 for Japanese students. Japanese students score significantly higher than the Indian students.

The test revealed significant difference in variances but mean is not significantly different in the following items:

Item D: Wherever I have been, I have been a powerful force for constructive change.

The p-value(sig.) for item D for the Levene's test is .043, it is below .05, hence we cannot assume equal variances, and the t value is

1.87. The p-value is .064 for the t-test for equality of means, here we are checking on the sig (2-tailed) column – this is the p-value. This p-value is related to independent samples t-test and shows that mean is not significantly different between the two nationality groups with respect to item D. The table 1 shows the average score or means of items D as 4.61 for Indian students and 5.02 for Japanese students. Japanese students score significantly higher than the Indian students.

Item F: Nothing is more exciting than seeing my ideas turn into reality.

The p-value(sig.) for item F for the Levene's test is .036, it is below .05, hence we cannot assume equal variances, and the t value is

1.95. The p-value is .053 for the t-test for equality of means, here we are checking on the sig (2-tailed) column – this is the p-value. This p-value is related to independent samples t-test and shows that there is no significant difference in the mean of the two nationality groups with respect to item F. The table 1 shows the average score or means of items F as 5.06 for Indian students and 5.53 for Japanese students. Japanese students score significantly higher than the Indian students.

On the basis of our study, we postulate a with a theoretical framework that entrepreneurial attitude is a function of proactive personality and culture, which can be depicted as shown in Figure 2.

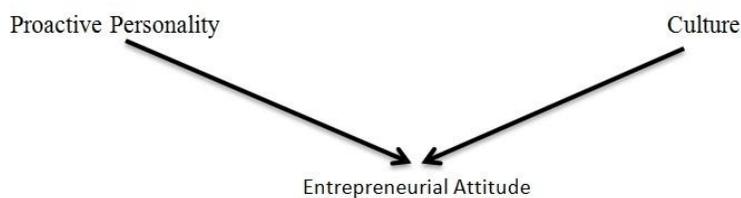


Figure 2

Conclusion

It is interesting that Indian MBA students and Japanese MBA students, though showed overall proactive personality 84.69 and 90.08 on Bateman and Crant instrument, yet had such strong differences on individual items. MBA students in India have not scored as high on the proactive personality index as MBA students of the developed country Japan. Indian students have scored higher than Japanese students on:

Item O: "I am great at turning problems into opportunities" Item E: "I enjoy facing and overcoming obstacles to my ideas"

Indians students scored almost same on:

Item H: "No matter what the odds, if I believe in something, I will make it happen",

One possible explanation for the difference is that, on average, Indian students understand the degree of difficulty for the entrepreneur and degree of bureaucratic hassles in India yet they believe that if one tries than they can groom themselves as successful entrepreneurs.

The hypothesis in this study is that proactive personality traits and entrepreneurial attitude are greatly influenced by one's culture and not innate personality factors found to be untrue as both the group are above the threshold of 85 score on personality index. However, since the scores are different so influence of culture cannot be ignored. Last, but not least, Regardless of the differences, both Indian and Japanese MBA students exhibit overall proactive, entrepreneurial attitudes, lending evidence to the conclusion that proactive personality attributes may be based more on inherent personality factors rather than strictly cultural learning. However, how those attributes are then demonstrated or expressed may be driven by cultural realities. Thus we conclude with a mathematical equation. Ie, Entrepreneurial attitude= f (pp, c) where pp stand, for proactive personality and c stands for culture.

References

- [1] Ajzen, I & Madden, T.J. (1986). "Prediction of Goal oriented Behavior: Attitude", intentions and perceiving behavioral control. *Journal of Experimental Social Psychology*, 22, pp 453-474.
- [2] Allport G.W., (1935). Attitude In C. Murchison (Ed.)", *Hand book of MA*; Clark University. pp 798-884.
- [3] Brockner, J. (1988), "Self esteem at Work" *Lexington Books Vol.* pp. 22-34.
- [4] Crant, J. M. (1995). The proactive personality scale and objective among real estate agents. *Journal of Applied Psychology*, 80, 532-537.
- [5] Crant, J. M. (1996). The proactive personality scale as a predictor of entrepreneurial intentions. *Journal of Small Business Management*, 34, 42-49.
- [6] Crant, J. M. (2000). The proactive personality scale in organizations. *Journal of Management*, 80, 435-462.
- [7] Crant, J. M., & Bateman, T. S. (2000). Charismatic leadership viewed from above: The impact of proactive personality. *Journal of Organizational Behavior*, 21, 63-75.
- [8] Desa, Bharat, *Entrepreneurship and India* http://www.siliconIndia.com/guestcontributor/guestarticle/13/Entrepreneurship_and_India.html Accessed on 1st June 2011
- [9] Durand & Shea (1974), "Entrepreneurial Activity as a formation of Achievement" *Motivation reinforcement control, Journal of Psychology*, vol. 88(a).
- [10] Gupta Vishal, & Bave N.M (2007) The Influence of Proactive Personality and Stereotype Threat on Women's Entrepreneurial Intentions, *Journal of Leadership & Organizational Studies* (2007) Volume: 13, Issue: 4, Pages: 73-85
- [11] Harris, Michael and Gibson, Shanon (2008). Examining the entrepreneurial attitudes of US business students, *Education + Training*, vol. 50, no. 7, pp. 568-581.
- [12] Higgins (1964). "The Economic development Harper and Row, New York.
- [13] Kuratako, D, (2006). A tribute to 50 years of excellence in entrepreneurship and small business. *Journal of small Business Management*, 44(3): 483-92.
- [14] Lajovleva, Kolvereid and Stephan (2011). Entrepreneurial Intentions in Developing and Developed Countries, *Education + Training*, Vol. 53, No. 5, pp. 353-370.
- [15] Ma, H., and T. Tan. (2006). Key components and implications of entrepreneurship: A 4-P frame work. *Journal of Business Venturing* 21 (5): 704-25.
- [16] McClelland et al. (1953). "The achievement motive" *Appleton-century-croft*, New York.
- [17] McClelland, D.C. (1961). "The achieving society" *D.VanNorstrant.Co.*, New York, pp 210-215.
- [18] Michael Frese, Doris Fay, Tanja Hilburger, Karena Leng, Almut Tag (1997). "The concept of personal initiative: Operationalization, reliability and validity in two German samples" *Journal of Occupational and Organizational Psychology* Volume 70, Issue 2, pages 139–161, June
- [19] Mitchelmore, Siwan and Rowley, Jennifer (2010). Entrepreneurial Competencies: A Literature Review and Development Agenda, *International Journal of Entrepreneurial Behavior and Research*, Vol. 16, No. 2, pp. 92-111.
- [20] Prieto, Leon C (2010) *Entrepreneurship (Analysis) Leadership (Analysis)*, *Academy of Entrepreneurship Journal*
- [21] SAY J.B, (1963). "Treatise on political economy or the production, distribution and consumption of Wealth". Translated from fresh by C.R. Prenerp, *Harward University, Boston*.
- [22] Sharma, Ekta (2010) *Entrepreneurial drive among Indian women*, *Abhigyan Publisher: Foundation for Organisational Research & Education Issue: Oct-Dec, 2010 Source Volume: 28 Source Issue: 3*
- [23] Schumpeter J. (1950). "The theory of Economic development *Harward University Press, Cambridge*.
- [24] Stimpson D, V. Robinson, P.B, J.C and Hunt H.K. (1991). "An attitude Approach to the Prediction of Entrepreneurship". *Entrepreneurship Theory and Practice*, Summer, pp 13- 31. consistency in social behavior. *The Ontario Symposium*, Vol.2. pp 131-146. *Hillsdale, 1982*.
- [25] Tamizharasi G and Panchanatham N (2010), *Entrepreneurial Attitudes among Entrepreneurs in Small and Medium Enterprises*, *International Journal of Innovation, Management and Technology*, Vol. 1, No. 4, October 2010 ISSN: 2010-0248

- [26] Victor V. Claar, Vicki R. TenHaken, Robery Frey, (2009), Entrepreneurial Attitudes Of MBA Students In The United States Relative To The CIS: The Case Of Armenia, *International Business & Economics Research Journal* – February 2009 Volume 8, Number 2 pp 67
- [27] Venkatapathy, R. (1992). “Entrepreneurial Attitude Orientation among first and Second Generation Entrepreneurs”. Paper presented to the National workshop on Management Research Development held under the auspices of the Association of Indian Management Schools, Indira Gandhi Institute for Development Research.

Report

An eclectic theory of entrepreneurship: policies, institutions and culture Research Report 0012/E
<http://www.entrepreneurship-sme.eu/pdf-ez/H200012.pdf>

Entrepreneur as an Intangible Asset

P.M. Rao, pmrao@liu.edu
College of Management, LIU Post - U.S.A

Entrepreneur as an Intangible Asset

Abstract

The purpose of this paper is two-fold: One, to present the argument that entrepreneur is an important, albeit, difficult-to-measure intangible asset. Two, to discuss what we do know about measurement of other intangible assets at the macro as well as the firm level. Lack of an operational definition of entrepreneur continues to plague empirical research on the role of entrepreneur for innovation. Many proxy measures for entrepreneurs have very little to do with technological innovation. The innovative use of Q ratio as a measure of “entrepreneurial fever” and the works of Baumol (1993) and Keller (2004) that focuses on *imitating entrepreneur* are promising. There has been significant progress in the measurement of other intangible capital such as R&D. Intangible assets far exceed the level of tangible assets in the US economy and the conventional accounting practice of expensing intangibles results in a distorted and misleading picture not only at the firm level, but also at the macro level.

Introduction

A central feature of the new economies of the developed as well as many of the emerging economies is the growing importance of intangible assets. The term “intangible assets” is often used interchangeably with knowledge assets and intellectual capital or intellectual property when the claim is legally protected such as in the case of patents, trademarks, and copyrights. Baruch Lev (2001, p.5) provides definition of intangible asset as “a claim to future benefits that does not have a physical or financial (a stock or a bond) embodiment”. By this definition, R&D stocks and broadly defined human capital clearly come under the category of intangible assets. One should add to this list marketing assets that are becoming the defining feature of many firms, small and large, in the new economy. Such assets include not only investment in promotional effort to create and sustain a brand name, but also investments in channel development, a well-trained sales force, carefully developed relationships along the entire spectrum of supply chain and more-- all driven by intangible assets embedded in what has come to be referred to as information and communications technology (ICT).

Intangible assets, particularly assets related to knowledge and entrepreneurial skills are inherently difficult to measure because, often, organized and competitive markets either do not exist for them or are weak when they do exist. As a result, academic discourse on intangible assets occurs with data that is subject to relatively wide margin of error or no data. More important, as Baumol (1993) suggests, an intangible asset of great importance for innovation and economic growth, entrepreneurship, is not found in formal models. The growth model developed by Aghion and Howitt (2010) utilizing exit and turnover data of firms and workers would be one of the few exceptions.

The purpose of this paper is two-fold: One, to provide a historical context for the role of entrepreneur in the innovation process and present the argument that entrepreneur is an important, albeit, difficult-to-measure intangible asset, which is the subject of Section I. Two, to discuss what we do know about measurement of intangible assets at the macro as well as the firm level, which is the subject matter of Section II followed by concluding remarks in Section III.

Entrepreneur and Entrepreneurship: Schumpeter and Beyond

Baumol(1993) famously noted that “the entrepreneur is at once one of the most intriguing and one of the most elusive in the cast of characters that constitutes the subject of economic analysis”(p.2). He observes further that, although the entrepreneur has long been recognized as central for the vitality of the market economy, it was not until Joseph Schumpeter his function was clearly defined only to disappear again from the theoretical economics literature. Schumpeter defined entrepreneur as the *innovator*—the act of bringing a novel idea into operation— not to be confused with either the inventor or the capitalist whose task it is to take risk and get rewarded for it. Note that the contemporary view of entrepreneur considers risk taking as one of her/his chief attributes. Thus, Schumpeter (1936) in *The Theory of Economic Development* wrote:

“Although entrepreneurs of course *may* be inventors, just as they may be capitalists, they are inventors not by nature of their function but by coincidence and vice versa” (pp. 88-89).

Later, in *Capitalism, Socialism and Democracy* Schumpeter (Third Edition, 1942) adds some glorified language to describe the entrepreneur and the entrepreneurial function:

“To act with confidence beyond the range of familiar beacons and to overcome that resistance requires aptitudes that are present in only a small fraction of the population and that define the entrepreneurial type as well as the entrepreneurial function. This function.....*consists of getting things done.*” (italics added. p. 132).

It is important to note that Schumpeter’s entrepreneur “gets things done” by exploiting opportunities through “*new combinations*” to produce not only innovations in terms of new products and processes, but also adaption of new and better sources of inputs as well as new forms of business organization and marketing methods. Moreover, Schumpeter (1942) of *Capitalism, Socialism and Democracy* couldn’t be clearer about the obsolescence of the entrepreneurial function, a phenomenon he calls “crumbling walls”. He concludes:

“The perfectly bureaucratized giant industrial unit not only ousts the small or medium-sized firm and “expropriates” its owners, but in the end it also ousts the entrepreneur and expropriates the bourgeoisie as a class which in the process stand to lose not only its income but also what is infinitely more important, its function” (p. 134).

Galbraith (1967) takes Schumpeter’s glorification of the entrepreneur and her/his eventual demise a step further:

“The great entrepreneur must, in fact, be compared in life with the male *Apis mellifera*. He accomplishes his act of conception at the price of his own extinction” (pp.88-89).

Baumol (1993) questions whether it is even possible to describe what entrepreneurs do beyond generalities since an entrepreneurial act must always be different from anything that has been done before. Therefore, he suggests that “....anyone who writes about entrepreneurship has two choices—either to deal with the past, or to discuss something other than activities that today constitute entrepreneurship”(p. 15).

The social status of entrepreneurs was indeed high as far back as 1800 BC in Babylonia. They were members of the elite classes carrying the title of *damgar* or *tamkarum* (Hudson 2010).\ Painstaking estimates by Gelderblom (2010) suggest that in 1620 about 12 percent of the population 15 to 64 years of age in the city of Amsterdam in the Dutch Republic—known as the country of entrepreneurs—were entrepreneurs. Note that there is no clear definition of entrepreneur underlying such estimates. The largest group of entrepreneurs in Amsterdam was shopkeepers, many of whom today would be classified as small business owners who may or may not be “entrepreneurs”.

Colorful language aside, lack of an operational definition of entrepreneur continues to plague empirical research about entrepreneurs and entrepreneurship. It is easier to talk about who are not entrepreneurs. They are not just managers who manage other peoples’ money taking no risk themselves, nor are they simply investors who may not have active role in the business. To be sure, there is no dearth of proxies and indicators of entrepreneurship.

De Nardi, Doctor, and Krane (2007) classify “entrepreneurs as those households in which the head declares being self-employed as a primary job, owning a business (or a share of one), and having an active management role in the firm” (p.19). Such households are referred to as self-employed business owners or, SEBs. By this classification, households headed by entrepreneurs make up about 7 to 8 percent of the US population. The single largest category of SEBs was in professional practices like doctors, lawyers, and accountants followed by construction, retailing wholesaling and the like. However, note that many of the professional practices, even if they are entrepreneurial, have little to do with technological innovation Schumpeter had in mind.

Some scholars look at entry and exit data of firms as indicators of entrepreneurial fever. For example, the data presented by Hathaway and Litan (2014) that business dynamism measured in terms of entry and exit in which entrepreneurs play a critical role has been on the decline in the firm entry rate—firms less than one-year old as a percent of all firms—has been on a steady decline since 1978 while the exit rate has held steady notwithstanding the rise during the Great Recession. Births and deaths of business *establishments* are also considered as indicators of business dynamism. Data on births and deaths—in contrast to data on entry and exit data—are not affected by events such as mergers, takeovers, and reclassification. Birth at the establishment level is considered by some researchers as an especially good indicator of entrepreneurial activity. Establishment birth rate, like the entry rate, has been on a declining trend since 1993, while the death rate has been declining since 2001 Sadeghi (2008). The data reported by Hathaway (2013) on percent change in new firm formation relative to 1980 base for high-tech (defined by the presence of high share of workers in science, technology, engineering and mathematics occupations), ICT high-tech, and total private sector is more relevant to the measurement of entrepreneurial activity related to technological innovation (Figure 1). However, the conclusion from this data that the sharp drop in new firm formation in high-tech and ICT-high-tech since 2002 –from their respective peaks of about 400 percent and 200 percent relative to 1980—portends bad news for future productivity and economic growth is a bit premature. Schumpeter understood better than anyone that a burst of entrepreneurial activity will be followed by a sharp decline, which he argued causes business cycles.

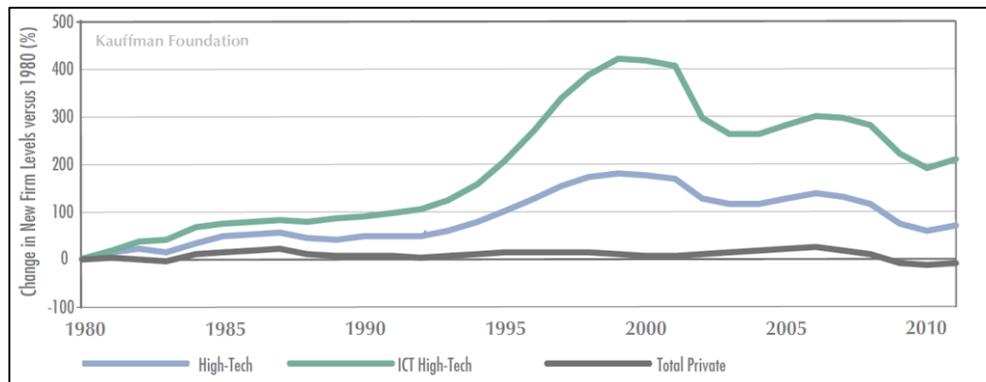


FIGURE 1: NEW FIRM (<1 YR.) FORMATION-CHANGE VERSUS 1980 (%)

Source: Hathaway (2013), U.S. Census Bureau, Business Dynamic Statistics and special tabulation; author’s calculation.

The trouble with most proxies of entrepreneurship is they seem to be far removed from indicators of technological innovation. For example, the rather sharp decline in entry observed by Hathaway and Litan (2014) is not reflected in the data on productivity, at least not yet. For example, average annual growth in multifactor productivity over the 1987 to 2007 period had shown no signs of decline. In fact, the growth rate has increased from 0.5 percent in 1990-1995 to 1.4 percent between 2000 and 2007. Not surprisingly, the rate of growth declined to 0.4 percent between 2007-2011, the period which included the Great Recession followed by 1 percent growth during 2010-2011 (USDL 2013). Nor does it show up in venture capital financing--sometimes known as angel investment--of high-tech projects (Figure 2). On the other hand, the sharp decline in the share of US patents granted to independent inventors-- from about 21 percent in 1978 to 7 percent in 2011—is, consistent with Schumpeter’s “crumbling walls” prediction that innovation will increasingly become the stuff of the large corporation or “corporate entrepreneurship”. This is not withstanding the contribution of individuals who started out as entrepreneurs like Bill Gates, Steve Jobs, Jeff Bezos, Larry Page & Sergey Brin, Narayana Murthy and scores of other lesser known personalities, but still fit Schumpeter’s definition of an entrepreneur. None of them started out as inventors or capitalists but all of them were innovators who exploited ideas through “new combinations” and got things done. It should be noted also that the

distinction between invention and innovation becomes very blurred in the present day context of science-based entrepreneurial firms in the bio-tech and software sectors, for example.

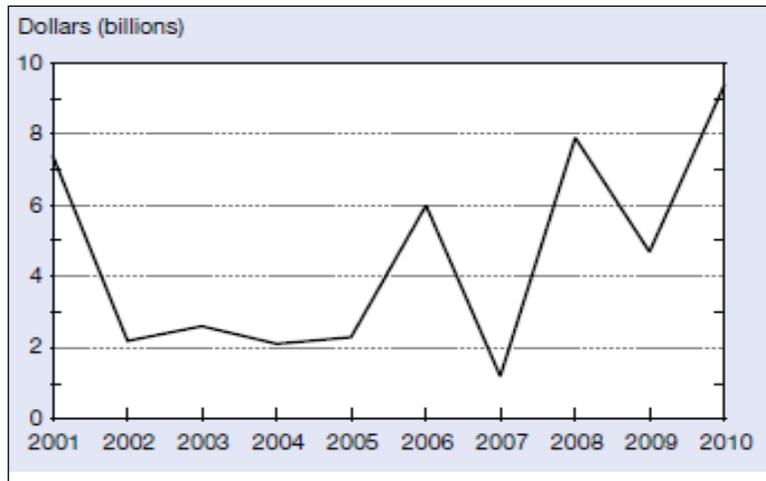


FIGURE 2: ESTIMATED US ANGEL INVESTMENT:2001-2010

Source: Global Entrepreneurship monitors, <http://www.gemconsortium.org/default.aspx>;
 U S Census Bureau, PopulatioEstimates,<http://www.census.gov.popest/estbygeo.html>, accessed 15 May 2011.Cited in NSB (2012).

In contrast to Schumpeter’s *innovative entrepreneurship*, Baumol (1993) introduced the term *imitative entrepreneurship*, which involves transfer of technology from one firm or one geographic location to another. Baumol and other economists (see Keller 2004, for example) suggest that the *mere imitator* Schumpeter refers to plays a central role in the rapid diffusion of technology within and across countries. This is particularly important for the economic growth of the developing countries that depend on the developed world’s technologies. One need only consider how Indian imitative entrepreneurs have become major players in the generic drug segment of the global pharmaceutical industry and ultimately helped create the beginnings of a fully integrated world class pharmaceutical sector in India (Rao and Klein 2013).

Another source of entrepreneurship measurement is the Global Entrepreneurship Monitor (GEM) sponsored by Babson College (USA), Universidad del Desarrollo (Chile), and Universiti Tun Abdulrazak (Malaysia). London Business School (UK) founded the GEM. The sponsorship by the three educational institutions culminated in annual reports containing entrepreneurship-related data on participating countries. GEM’s Adult Population Survey (APS) is based on a random sample of 2000 adults between 18 to 64 years of age in the participating countries. The GEM 2012 Report authored by Xavier, Kelly, Kew, Herrington, and Vorderwulbecke (2013) published survey data on early-stage total entrepreneurial activity (TEA)—the central measure of GEM-- among other data. The TEA rate consists of the percentage of individuals aged 18-64 in a country/economy who are in the process of starting or are already running new businesses. By this measure, the US with 13 percent ranks highest among the 30 countries including EU (22) and non-EU countries (7). Note, however, TEA rates tend to be high in economies with low GDP per capita and low in high GDP per capita economies. The highest rates were found in Sub-Saharan Africa (28%) and Latin America/Caribbean (17%) regions indicating necessity-motivated entrepreneurship and perhaps relatively low corporate presence. By contrast, lower rates in high GDP per capita economies suggest opportunity-motivated entrepreneurship and high level of corporate entrepreneurship. Again, these findings leave us with the *presumption* of a positive relationship between start-up rates and innovation without much empirical support.

Anokhin and Wincent (2012), utilizing data for 35 countries over the 1996-2002 period, attempted to do just that. They operationalize a country’s innovation with two measurements of the dependent variable-- patent applications

and total factor productivity (TFP) -- and relate them to the GEM's measure of TEA (independent variable) and several other control variables. The authors conclude "that on balance, there is a weak relationship between start-up rates and innovation" (p. 41). The relationship is not uniformly positive across countries. The relationship is positive in the high GDP per capita countries, but negative in the low GDP per capita countries, a finding consistent with the pattern of TEA in rich vs. poor countries noted above. Another earlier study by Bowen and Dirk De Clercq (2008)-- based on data for 40 countries over the 2002-2004 period-- used the GEM's TEA measure (i.e. a country's start-up rate) as the *dependent* variable and related it to independent variables such as financial capital targeted at entrepreneurship, educational capital targeted at entrepreneurship, government regulation, and the level of corruption and found that the allocation of entrepreneurial effort is positively related to a country's *targeted* financial and educational activities toward entrepreneurship, and negatively related to a country's level of corruption. An important implication of this study is policies to promote entrepreneurship need to be targeted.

Estimates of Intangible Capital for the U.S Economy

It has long been recognized in the economics literature that unaccounted intangible assets in the economy may be so large that the traditional practice of excluding most intangible investment such as R&D would result in a distorted picture of the level of GDP as well as its sources of growth. Pioneering estimates of intangible capital for the U.S economy by Corrado, Hulten and Sichel (2009) suggest that intangible capital in 2003 was \$3.6 trillion, an amount that exceeded the level of tangible capital by 36 percent (Figure 3 and Table 1). Almost half of the intangible capital is in the form of capitalized scientific and non-scientific R&D (an example of the latter is development of new motion pictures and other forms of entertainment), which the authors labeled as innovation property. Investments in on-the-job training by firms and computerized information accounted for 29 percent and 14 percent, respectively followed by capitalized value of advertising to build brand equity at 7 percent.

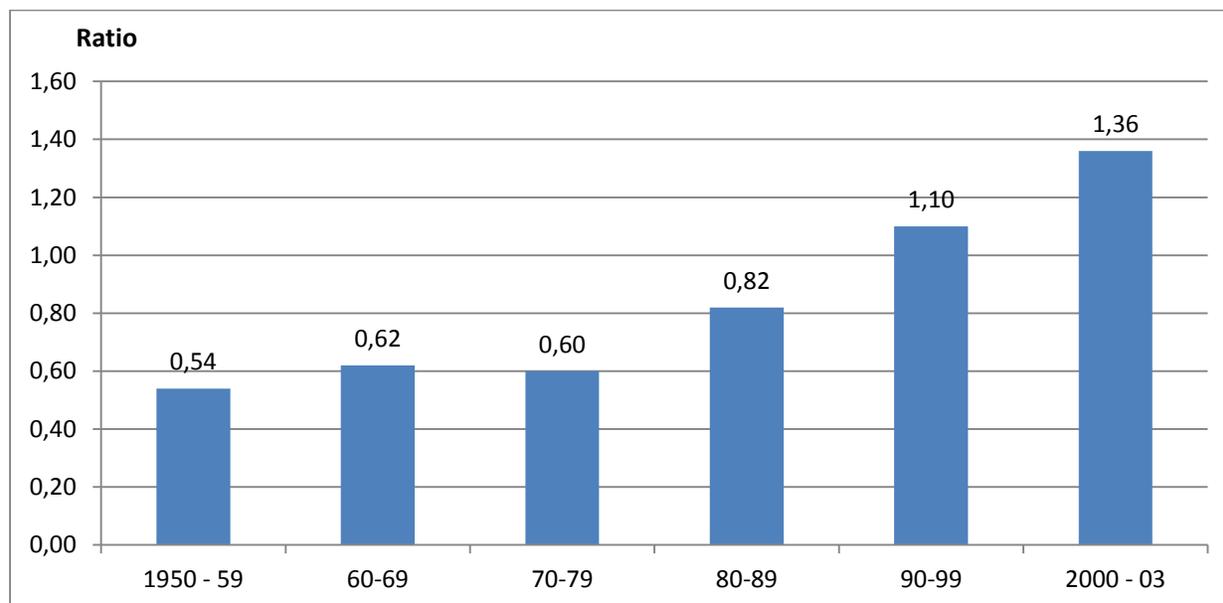


FIGURE 3: RATIO OF U.S. BUSINESS INVESTMENT IN INTANGIBLES TO TANGIBLES, SELECTED PERIODS*

Source: Data for the figure from Corrado, Hulten, and Sichel (2009), Table 1, Page. 671 - * Annual averages for periods shown

TABLE 1: ESTIMATED VALUE OF INTANGIBLE CAPITAL, BY TYPE, 2003
(IN BILLIONS OF CURRENT DOLLARS)

Type	Amount	Percent*
Computerized Information (includes software)	\$ 511.9	14.1%
Innovation Property		
Scientific	922.3	25.4
Non - Scientific	864.4	23.8
Economic Competencies		
Brand Equity	271.8	7.5
Firm – Specific Resources	1,065.6	29.3
Total	\$ 3,636.1	100.0

Source: Corrado, Hulten, and Sichel (2009), Table 2, Page. 676

*Percentages may not add up to 100 because of rounding.

The methodology underlying estimates of the components of intangible capital involves painstakingly estimating constant dollar stocks of investments in R&D, computerized information, on-the-job training, and advertising with appropriate depreciation rates. More likely than not Corrado-Hulten-Sichele (hereafter CHS) estimates of intangible capital are understated. To cite just one example, capitalized value of advertising, which the authors call brand equity is vastly understated, considering advertising is but a small fraction—perhaps no more than a third—of total promotion mix which includes personal selling, public relations, and sales promotion that are also aimed at building brand equity (Rao and Klein 2013). Moreover, depreciation rates applied to stocks of advertising (60 percent per year), firm-specific resources (40 percent) and R&D (20 percent) are quite conservative. More important, in a just-published study, Eisfeldt and Papanikolaou (2014) claim to be the first to emphasize that a large part of the most quantitatively important category of intangible capital—essential talent—is not accounted for because it is not possible for firms to fully own the cash flows generated by inputs from key talent. Put differently, key talent, not the firm, owns the cash flows associated with the intangible capital to the extent such capital is portable. The authors call this the missing capital estimated to be 50 percent of the measured market value of capital, which does not show up anywhere in the conventional accounting of intangible capital.

A different approach to measuring the value of intangible capital at the macro level comes from Tobin's Q, which is the ratio of market value of firms to replacement cost of *tangible* assets. Under competitive markets and no measurement errors, the Q ratio is expected to be 1.0. A ratio greater than 1.0 indicates, among other things, monopoly profits (which show up in the market value, the numerator) created in part by intangible assets such as capitalized value of R&D, brand equity, and the like, which are not counted in the denominator, the replacement cost of tangible assets. The Q ratio also reflects measurement errors in the calculation of replacement cost of tangible assets. Consistent with the rapid growth of *measured* intangible assets in the economy estimated by CHS, the Q ratio has risen rapidly from 0.28 in the early 1980s to 1.64 reaching a peak in 2000 at 1.64 and dropping to 0.57 during the 2007-2009 financial crisis before rising again to current level of 1.10 (Short 2014) Tobin's Q has been interpreted as an index of "speculative fever", which predicts the fluctuations in the economy's investment activity.

More recently, Phelps (2013), winner of the 2006 Nobel Prize in economics, reinterpreted the Q ratio as an indicator of economy's dynamism in terms of prospective new ideas. Phelps plotted a hybrid measure of Tobin's Q in 1988 against labor productivity in 1996 for nine European countries plus US, Canada and Australia and a strong

positive relationship between the two variables (Figure 7.3, p.188). He suggests that the current Q ratio is a good predictor of future productivity and hence “entrepreneurial fever” and innovation as well.

Note that the observed positive relationship between the Q ratio and measured labor productivity could be due to rapid growth of intangible capital during the same period experienced by 12 countries in the sample. A question arises whether entrepreneurial fever and speculative fever are one and the same.

The Case of “Missing” Intangible Capital at Microsoft

Hulten (2010) provided an estimate of missing intangible capital for Microsoft that is 96 percent (\$67 billion) of its conventional balance sheet assets at \$70 billion in 2006. (If one were to apply the same ratio to Microsoft’s 2013 balance sheet assets, the missing intangible capital of the firm would be \$138 billion). Hulten’s estimate of intangible capital comprised of 52 percent R&D stock; 41 percent related to sales and marketing; and 7 percent related to general and administrative stock in 2006. The addition of intangible capital causes shareholder equity to jump from \$40 billion to \$106 billion and return on equity to drop by 50 percent, from the conventional rate of 31.4 percent to intangibles-adjusted rate of 15.7 percent.

Employing macro-level growth accounting methodology, Hulten (2010) was also able to provide estimates of the sources of Microsoft’s growth in real output between 1988 and 2006. Intangible capital accounted for 44 percent of growth in output, while tangible capital a mere 7 percent. The second largest source of growth was total factor productivity (TFP)—residual after the contribution of all inputs are accounted for—which contributed 21 percent. Contribution of labor input to Microsoft’s growth, like the contribution of tangible capital, was a mere 10 percent and the remaining 18 percent was attributed to intermediate input (TABLE 2).

TABLE 2: SOURCES OF MICROSOFT’S GROWTH, 1988 – 2006

Sources	Percent
Intangible Capital Input	44.3%
TFP	20.7
Intermediate Input	18.3
Labor Input	10.0
Tangible Capital Input	7.0
Total	100.0

Source: Calculated from Hulten (2010), Table 6, Page. 3

One thing is clear from Hulten’s work. That is, intangible capital is an important and growing component of corporate assets-- as it is in the economy-- but not accounted for in the conventional balance sheets, thus resulting in a misleading analysis of the firm’s performance. That said, there are serious theoretical and empirical issues—some noted by the author himself in Hulten’s Microsoft study. For example, the macro-level sources-of-growth model used by Hulten to analyze Microsoft assumes perfectly competitive markets, constant returns to scale, exogenous technological change, and little uncertainty about the outcome of investments. None of these assumptions hold for Microsoft as Hulten himself notes. Moreover, it may be said that Microsoft was founded and run, at least initially, by a Schumpeterian entrepreneur, whose large and obvious contribution to its growth shows up nowhere in the sources-of-growth model.

Concluding Remarks

Among the 20th century economists Schumpeter was the first to assign central role for the entrepreneur and the entrepreneurship in the innovation process. Even Picketty (2013), who believes that the entrepreneurial argument does not justify vast inequalities in wealth, concedes the importance of entrepreneurs for innovation. Although the entrepreneur of Schumpeter's *The Theory of Economic Development* (1934) who seeks to upset the existing equilibrium and move the economy to the new equilibrium has been greatly supplanted by the large corporation as Schumpeter predicted in his *Capitalism, Socialism and Democracy* (1942), she/he is hardly out of the picture. One need only consider the entrepreneurship of Bill Gates, Steve Jobs, Jeff Bezos, and scores of other individuals like them who successfully challenged the very corporate giants who are supposed to leave no room for them. It is a safe bet that the world will continue to produce such entrepreneurs, albeit, to a different degree in different societies reflecting their institutional structure. This is despite the fact that, in the US nonfarm business economy, producers of technological innovation (individuals and firms) are able to capture only a tiny fraction—little over 2 percent—of the super-normal or the “Schumpeterian profits” as Nordhaus (2004) refers to them in his pioneering study. Still, measurement of entrepreneurs and entrepreneurship, much less their contribution to the economic wellbeing of the society has been challenging. Many of the available measures such as entry and exit rates and counts of self-employed businesses, for the most part, have very little to do with innovative entrepreneurship Schumpeter had in mind. This is not withstanding recent work by Hathaway (2013) and others who began looking at new firm formation of high-tech firms. Moreover, recent cross-country studies found only a weak relationship between start-up rates and innovation. This is one reason why entrepreneurial effort as an input into the production process has not found its way explicitly into many empirical models of economic growth. However, Phelps's (2013) innovative use of Q ratio as a measure of “entrepreneurial fever” across countries is promising as are models of technology transfer within and across countries -- built around the behavior of *imitating* entrepreneurs -- developed by Baumol (1993), and Keller(2002).

Much progress has been made in the measurement of other intangible assets. There is little doubt about the importance of the value of measurable intangible assets in the form of capitalized values of R&D, software, brand names and the like in terms of their level as well as growth in the economy. Estimates of intangible capital for the US economy by Corrado, Hulten, and Sichel (2009) exceed the value of tangible capital by 36 percent and almost half of it is in the form of scientific and non-scientific R&D. More likely than not, the value of intangible capital is vastly understated, not least because a large part of the most quantitatively important category of intangible capital—essential talent—is not accounted for because it is not possible for firms to fully own the cash flows generated by inputs from key talent. One of the implications of the growing importance of intangible capital is capital deepening and its contribution to growth in labor productivity is greater and total factor productivity (TFP) growth lower than would be the case otherwise.

Not surprisingly, firm level estimate of missing intangible capital for the Microsoft by Hulten (2010) was 96 percent of the value of conventional balance sheet assets in 2006. Hulten describes the picture of Microsoft that emerges from his study is a story about the successful use of knowledge inputs to produce knowledge outputs. Note that accounting for intangible capital reduces return on equity and narrows the gap between market-to-book ratios significantly. Thus, the conventional accounting practice of expensing intangibles results in a distorted and even misleading picture of performance not only at the firm level, but also at the macro level.

References

- [1] Aghion, P. and Howitt, P. (2010). *The Economics of Growth*. PHI Learning Private Limited, New Delhi.
- [2] Anokhin, S., & Wincent, J. (2012). Start-up rates and innovation: a cross-country examination. *Journal of International Business Studies*, 43(1), 41-60.
- [3] Baumol, W. J. (1993). *Entrepreneurship, management, and the structure of payoffs*. MIT press, Cambridge, MA.
- [4] Bowen, H. P., & De Clercq, D. (2008). Institutional context and the allocation of entrepreneurial effort. *Journal of International Business Studies*, 39(4), 747-767.
- [5] Corrado, C. Hulten, C., & Sichel, D. (2009). Intangible capital and US economic growth. *Review of Income and Wealth*, Volume 55(3), pp. 661-685.
- [6] De Nardi, M., Doctor, P., & Krane, S. D. (2007). Evidence on entrepreneurs in the United States: Data from the 1989-2004 Survey of Consumer Finances. *Economic Perspectives-Federal Reserve Bank of Chicago*, 31(4), 18
- [7] Eisfeldt, Andrea L. and Papanikolaou, Dimitris (2014). The Value and Ownership of Intangible Capital, *American Economic Review: Papers & Proceedings*, 104(5): 189-194.
- [8] Galbraith, J.K. (1967). *The New Industrial State*, Boston: Houghton Mifflin Company.
- [9] Gelderblom, Oscar (2010). "The Golden Age of the Dutch Republic", in David S. Landis, Joel Moyker, and William J. Baumol eds. *The Invention of Enterprise*, Princeton: Princeton University Press.
- [10] Hulten, C. R. (2010). Decoding Microsoft: intangible capital as a source of company growth, *NBER Working Paper* (15799), Cambridge: MA, National Bureau of Economic Research.
- [11] Keller, Wolfgang (2004). *International Technology Diffusion*, *Journal of Economic Literature*, Volume 42, pp. 752-782.
- [12] Lev, B. (2004). Sharpening the intangibles edge. *Harvard business review*, pp. 109-118.
- [13] Lev, B., & Daum, J. H. (2004). The dominance of intangible assets: consequences for enterprise management and corporate reporting. *Measuring business excellence*, Volume 8(1), pp. 6-17.
- [14] Lev, B. (2001). *Intangibles: Management, Measurement, and Reporting*. Brookings Institution Press, Washington D.C.
- [15] Linton, Robert and Hathaway, Ian (2014). *Declining Business Dynamism in the United States: A Look at States and Metros*, Economic Studies at Brookings (May), Washington, D.C: The Brookings Institution.
- [16] Nordhaus, W.D. 2004. Schumpeterian Profits in the American Economy: Theory and Measurement. NBER Working Paper 10433. **National Bureau of Economic Research**, Cambridge: MA.
- [17] Phelps, Edmund (2013). *Mass Flourishing*, Princeton: Princeton University Press.
- [18] Picketty, Thomas (2014). *Capital in the Twenty First Century*, Bellnap Press of Harvard University Press, Cambridge, MA.
- [19] Pitelis, C. N., & Teece, D. J. (2010). Cross-border market co-creation, dynamic capabilities and the entrepreneurial theory of the multinational enterprise. *Industrial and Corporate Change*, Volume 19(4), pp. 1247-1270.
- [20] Rao, P. M., & Klein, J. A. (2013). *Strategies for High-Tech Firms: Marketing, Economic, and Legal Issues*. ME Sharpe.
- [21] Sadeghi, A. (2008). Births and Deaths of Business Establishments in the United States, *The Monthly Lab. Rev.*, 131, 3.
- [22] Schumpeter, Joseph A. (1936). *The Theory of Economic Development*, Cambridge, MA: Harvard University Press.
- [23] Schumpeter, Joseph A. (1942). *Capitalism, Socialism, and Democracy*, New York: Harper and Row.
- [24] Shorts, Doug (2014). *The Q Ratio and Market Valuation: Monthly Update*,
- [25] <http://www.advisorperspectives.com/dshort/updates/Q-Ratio-and-Market-Valuation.php>
- [26] USDL (2013). *Multifactor Productivity Trends – 2011*, Bureau of Labor Statistics U.S. Department of Labor, Release April 9,
- [27] Xavier, S. R., Kelley, D., Kew, J., Herrington, M., & Vorderwülbecke, A. (2013). The GEM 2012 Global report. *Babson Park, MA: Babson College*.

Innovative entrepreneurs: who are they?

*Vesa Routamaa, vmr@uva.fi
Pii Edinger, pked@uva.fi,
Tiina Brandt, tiina.brandt@uva.fi
University of Vaasa, Finland*

Innovative entrepreneurs: who are they?

Abstract

Do entrepreneurs differ from ordinary people? This question is often asked but seldom answered in research. In spite of the fact that anyone can start up a company, certain personal characteristics and behavioral patterns may be beneficial for running an enterprise.

In this study, entrepreneurs' personality types will be analyzed and compared with ordinary population with Finnish sample. Additionally creativity and innovation orientations of different personality types are compared in order to find out who are the innovators.

It was found that the most typical entrepreneurial personalities are often intuitive, spontaneous, curious, adaptable, and open to what is new and changeable. On the contrary, 70% of the population favors a planned, organized and predictable life style avoiding risks and surprises in their daily life, and they are more seldom entrepreneurs. The results can be utilized, for example, in entrepreneurial education and in mentoring start up candidates.

Introduction

Entrepreneurs as individuals differ from other people, that is, entrepreneurs' personality structure differ from the average, at least statistically. Of course we must not forget that entrepreneurs of different fields or different forms of enterprising might be connected with different characteristics of entrepreneurs. However, already Joseph Schumpeter (1934) saw real entrepreneurs as innovators and their role as the key driver of economic growth. He talked about "creative destruction" in which new innovations replace the old ones. We are in the search of intangible human capital that should be recognized, trained and unleashed to ensure that the smaller countries can withhold and improve their positions in the global economy.

The importance of the personality of potential entrepreneurs is usually ignored in promoting entrepreneurship. When explaining entrepreneurship there has usually been two different aspects: role of the environment has been one of the key factors to explain entrepreneurship. Secondly, the focus has been on finding the differences between entrepreneurs and non-entrepreneurs. Previous studies have found some differences but they have mostly ignored the personality aspect. In this study, the role of the environment has not been forgotten but we focus on the association between entrepreneurial creativity and personality in order to find out the innovative entrepreneurs. Schumpeter (1973) also indicated that becoming an entrepreneur requires tendencies that are unique. McClelland (1961) suggested that a high need of achievement, risk-taking ability, preferences for challenge, acceptance of personal responsibility and innovativeness are the characteristics of an entrepreneur. Other traits that are found to describe entrepreneurs are for instance tolerance of ambiguity and internal focus of control (Begley & Boyd, 1986).

The majority of the studies dealing with entrepreneurship and personality have focused on finding one description of entrepreneurs, or characteristics, which are typical of entrepreneurs. However, these studies have mainly ignored the fact that the entrepreneurs of different fields, or the different forms of entrepreneurship, might be connected with different characteristics or traits. In other words, there might be, not only one "true" personality of entrepreneur, but also many personalities, which might favor different forms of entrepreneurship. Also the entrepreneurs' orientation to networking (Routamaa & Varamäki, 1998) or internalization (Routamaa, Vesalainen & Pihlajaniemi, 1996) differs from each other depending on personality type. An enterprise can actually take multiple forms requiring more or less of training and various skills, like those of an expert entrepreneur, farmer entrepreneur, entrepreneur in a co-operative movement, scientist entrepreneur, venture capitalist, franchising entrepreneur, partner entrepreneur, businessman, shopkeeper, intrapreneur etc. – there is a good number of alternatives. It is not necessary for an entrepreneur or the founder of an enterprise to have all skills, since one can outsource sub-functions, purchase from a network or from a joint venture, subcontract etc. In a very basic form all you need is a mobile phone and good organizing skills. This should be emphasized in entrepreneurial education amongst young people. It can be concluded that the personality structure of entrepreneurs differs from general population (Routamaa 2008, 2011). But also entrepreneurs differ from each other and different

personality types favor different entrepreneurial identities. All SMEs are not innovative in the Schumpeter's 'creative destruction' meaning, that is all entrepreneurs are or need not to be especially innovative.

Since Schumpeter (1934), entrepreneurial characters in general have received a lot of attention in previous research (e.g. Smith, 1967; Stanford & Curran, 1976; Carland, Hoy, Boulton & Carland, 1984; Routamaa & Vesalainen, 1987; Gartner, 1989; Timmons, 1989). However, in spite of the dominant importance of entrepreneurship in economy, entrepreneurs as personalities have got relatively little attention. Most often, a trait approach has been used to illustrate entrepreneurial characteristics, like for example the need for achievement, internal locus of control and the propensity to take risks (e.g. McClelland, 1961; Hornaday & Aboud, 1971; Timmons, 1978; Welsh & White, 1981; Borland, 1974; Brockhaus, 1982; Markman & Baron, 2003; Marcati, Guido & Peluso, 2008; Dvir, Sadeh & Malach-Pines, 2010). More recently, the Five-Factor Model of personality has been applied to compare entrepreneurs and managers (Envick & Langford, 2000; Zhao & Seibert, 2006). It may be asked, however, whether the entrepreneurs constitute a homogeneous group such that it can be described using common traits. Are the trait tests able to identify different kinds of enterprising personalities? The still picture of a person in trait approach is a very narrow view in comparison of dynamic type, and the system of judging and perceiving explained in the next section. Empirical research has not found any trait that is consistently associated with entrepreneurship (Järnlström, 2002).

The basic question here is whether it is possible to identify the most potential, innovative entrepreneurs in terms of personality preferences or types.

Personality and personality types

Through the ages, an open question has been whether entrepreneurship is an innate talent, or can it be learnt. However, it can be assumed that there are more and less entrepreneurial oriented people. People also have some innate characteristics useful for entrepreneurs, for example, some of us are more easy-going salesmen than others and some better at recognizing great opportunities. Some people have better risk tolerance than others, and risk takers more likely to start their own business. Big part of this has to do with personality, which is mostly inborn. However, in spite of the dominant importance of entrepreneurship in economy, entrepreneurs as personalities have got relatively little attention. Most often, a trait approach has been used to illustrate entrepreneurial characteristics, like for example, the need for achievement, internal locus of control and the propensity to take risks (e.g. McClelland 1961; Hornaday & Aboud 1971; Timmons 1978; Welsh & White 1981; Borland 1974; Brockhaus 1982).

In this study, the Myers-Briggs Type Indicator (MBTI) was used to conceptualize and assess personality. It is based on Carl Jung's theory of psychological types and it reports personality preferences on four scales: Jungian Extraversion – Introversion, Sensing – Intuition, Thinking – Feeling, and the Judging – Perceiving preference added by Briggs and Myers (see e.g. Myers & McCaulley, 1985). According to Myers (1992) "the MBTI is primarily concerned with the valuable differences in people that result from where they like to focus their attention, the way they like to take information, the way they like to decide, and the way they like to adopt". Usually one pole dominates over another. The eight preferences are identified in sixteen types, each representing a certain preference order (Myers & McCaulley 1985). Briefly illustrated the preferences or dimensions are (Myers 1992):

Extraversion	(E)	Interested in people and things in the world around them. Breadth of interests.
Introversion	(I)	Interested in the ideas in their minds that explain the world. Depth of concentration.
Sensing	(S)	Interested in what is real and can be seen, heard and touched. Reliance on facts.
Intuition	(N)	Interested in what can be imagined and seen with 'the mind's eye'. Grasp of possibilities.
Thinking	(T)	Interested in what is logical and works by cause and effect.
Feeling	(F)	Interested in knowing what is important and valuable. Warmth and sympathy.
Judging	(J)	Interested in acting by organizing, planning, deciding. Organization.
Perceiving	(P)	Interested in acting by watching, trying out, adapting. Adaptability.

As stated by Myers & McCaulley (1985), "according to theory, each of the 16 types results from a preference for one pole of each of the four preferences over the opposite pole. A preference of any dimension is designed to be psychometrically independent of the preferences of the other three dichotomies, so that the preferences on the four

dichotomies yield sixteen possible combinations called types, denoted by the four letters identifying the poles preferred (e.g., ESTJ, INFP). The theory postulates specific dynamic relationships between the preferences. For each type, one process is the leading or dominant process and a second process serves as an auxiliary. Each type has its own pattern of dominant and auxiliary processes and the attitudes (E or I) in which these are habitually used. Determining these dynamic relationships is enabled by the J-P dichotomy of the MBTI. The characteristics of each type follow from the dynamic interplay of these processes and attitudes”.

In order to interpret the association between type and entrepreneurial identities, the types are next briefly illustrated (Myers & McCaulley, 1985):

-ISTJ Quiet and serious. Succeed through concentration and thoroughness. Practical, orderly, matter-of-fact, logical, realistic, and dependable. See to it that everything is well organized. Take responsibility. Make up their own minds as to what should be accomplished and work toward it steadily, regardless of protests or distractions.

-ISFJ Quiet, friendly, responsible, and conscientious. Work devotedly to meet their obligations. Lend stability to any project or group. Thorough, painstaking, accurate. Their interests are usually not technical. Can be patient with necessary details. Loyal, considerate, perceptive, concerned with how other people feel.

-INFJ Succeed by perseverance, originality, and desire to do whatever is needed or wanted. Put their best efforts into their work. Quietly forceful, conscientious, concerned for others. Respected for their firm principles. Likely to be honored and followed for their clear visions as to how best to serve the common good.

-INTJ Have original minds and great drive for their own ideas and purposes. Have long-range vision and quickly find meaningful patterns in external events. In fields that appeal to them, they have a fine power to organize a job and carry it through. Skeptical, critical, independent, determined. Have high standards of competence and performance.

-ISTP Cool onlookers, quiet, reserved, observing and analyzing life with detached curiosity and unexpected flashes of original humor. Usually interested in cause and effect, how and why mechanical things work, and in organizing facts using logical principles. Excel at getting to the core of a practical problem and finding the solution.

-ISFP Retiring, quietly friendly, sensitive, kind, modest about their abilities. Shun disagreements, do not force their opinions or values on others. Usually do not care to lead but are often loyal followers. Often relaxed about getting things done because they enjoy the present moment and do not want to spoil it by undue haste or exertion.

-INFP Quiet observers, idealistic, loyal. Important that outer life be congruent with inner values. Curious, quick to see possibilities, often serve as catalysts to implement ideas. Adaptable, flexible and accepting unless a value is threatened. Want to understand people and ways of fulfilling human potential. Little concern with possessions or surroundings.

-INTP Quiet and reserved. Especially enjoy theoretical or scientific pursuits. Like solving problems with logic and analysis. Interested mainly in ideas, with little liking for parties or small talk. Tend to have sharply defined interests. Need careers where some strong interest can be used and useful.

-ESTP Good at on-the-spot problem solving. Like action, enjoy whatever comes along. Tend to like mechanical things and sports, with friends on the side. Adaptable, tolerant, pragmatic; focused on getting results. Dislike long explanations. Are best with real things that can be worked, handled, taken apart, or put together.

-ESFP Outgoing, accepting, friendly, enjoys everything and makes things more fun for others by their enjoyment. Like action and making things happen. Know what's going on and join in eagerly. Find remembering facts easier than mastering theories. Are best in situations that need sound common sense and practical ability with people.

-ENFP Warmly enthusiastic, high-spirited, ingenious, imaginative. Able to do almost anything that interests them. Quick with a solution to any difficulty and ready to help anyone with a problem. Often rely on their ability to improvise instead of preparing in advance. Can usually find compelling reasons for whatever they want.

-ENTP Quick, ingenious, good at many things. Stimulating company, alert and outspoken. May argue for fun on either side of a question. Resourceful in solving new and challenging problems, but may neglect routine assignments. Apt to turn to one new interest after another. Skillful in finding logical reasons for what they want.

-ESTJ Practical, realistic, matter-of-fact, with a natural head for business or mechanics. Not interested in abstract theories, want learning to have direct and immediate application. Like to organize and run activities. Often make good administrators; are decisive, quickly move to implement decisions; take care of routine details.

-ESFJ Warm-hearted, talkative, popular, conscientious, born co-operators, active committee members. Need harmony and may be good at creating it. Always doing something nice for someone. Work best with encouragement and praise. Main interest is in things that directly and visibly affect people's lives.

-ENFJ Responsive and responsible. Feel real concern for what others think or want, and try to handle things with due regard for the other's feelings. Can present a proposal or lead a group discussion with ease and tact. Sociable, popular, sympathetic. Responsive to praise and criticism. Like to facilitate others and enable people to achieve their potential.

-ENTJ Frank, decisive, leaders in activities. Develop and implement comprehensive systems to solve organizational problems. Good at anything that requires reasoning and intelligent talk, such as public speaking. Are usually well informed and enjoy adding to their fund of knowledge.

In addition to the types, the dimensions (E, I, S, N, T, F, J, P) illustrated above as well as the pairs (EN, NT, ST, etc.) and temperaments (SJ, SP, NF, NT) of the personality in relation to entrepreneurs and innovativeness will be concerned.

Earlier studies

Concerning the MBTI preferences, Carland (1982), Barbato and Durlabhji (1989), Carland and Carland (1992) and Allinson, Chell & Hayes (2010) found that entrepreneurs tended to be more often intuitive thinking (NTs) whereas typical owner managers or managers were sensing judging (SJs). Carland, Carland and Higgs (1993) found NTs (intuitive thinking) displaying the highest entrepreneurship tendency, i.e. NTs, as distinguished from the other temperaments (ST, SP, NF), fit the traditional view of entrepreneurship in that the NT preference was highly correlated with innovation (cf. also Keirse & Bates, 1984). NT is a visionary who enjoys complexity and is an architect of change, sees long- and short-term implications, and focuses on possibilities (Keirse & Bates, 1984). These results uncovered that entrepreneurs tend to be NTs but also NPs (intuitive spontaneous). Referring to Asikainen and Routamaa (1997), NPs were found to be most creative. Also ENFPs produce individualistic and original ideas. Accordingly, Asikainen and Routamaa's (1997) view sounds logical. According to Ginn and Sexton (1988), fast-growth entrepreneurs tended to have significantly higher N, P, and NP orientations than managers. These results were in line with Routamaa et al. (1996), who found more Es, Ns, ENs, NTs but also NJs than ISs and IJs (introvert judging) among internationally oriented entrepreneurs. It could also be concluded that SPs and IPs are more locally oriented entrepreneurs, and also SJs seem to prefer traditional, local fields of low risks, that is, NPs as entrepreneurs may be more suitable in global and new business areas with high risk. SP has often been mentioned as the typical entrepreneur - negotiates well, is good in a crisis and is a risk taker. However, SP lives for the moment and does not like theory or routine (see Keirse & Bates, 1984).

Reynierse (1997) found that entrepreneurs had significantly higher Ps and lower Js. Further, entrepreneurs were more EPs, NPs, and TPs (thinking spontaneous) than IJs, SJs, and FJs. In her study of business students, Järnlström (2000) found that Ns and Ps chose relatively more often creativity (entrepreneurial) and autonomous career anchors than Ss and Js. Järnlström (2002) found also that the J-P dichotomy of the MBTI played the most important role separating entrepreneurial aspirations from organizational employment aspirations. Intuitive (N) and perceiving (P) preferences were more associated with entrepreneurial aspirations, whereas sensing (S) and judging (J) were more associated with organizational employment aspirations.

Envick and Langford (2000) compared entrepreneurs and managers using the Five-Factor Model of personality. Their results indicated that managers are significantly more conscientious (playful, neat, dependable) and agreeable (team-oriented, trusting, considerate) than entrepreneurs. That is, entrepreneurs were more impulsive, careless and unorganized as well as more self-interested, cool and skeptical. Managers were also more social (warm, optimistic and talkative) than entrepreneurs, who were a little more independent, reserved and hard-to-read. Entrepreneurs for their part were more adjusted (stable, confident and effective vs. nervous, self-doubting and moody) and open (imaginative, curious and original vs. practical, unimaginative, literal-minded) than managers, but not to a significant degree. These results support those reported above at least regarding the frequency of perceiving preference among entrepreneurs. Impulsive, careless and unorganized entrepreneurs are able to act in a

flexible, spontaneous and changing environment. This corresponds with P preference of the MBTI. However, Routamaa, Koskinen & Koskinen (2010) found that entrepreneurs are more extravert (E) and feeling (F) than salaried managers, in addition that entrepreneurs were significantly more spontaneous (P).

Routamaa (2008, 2011) found based on 2960 observations from Finland that ESFP, ESTP, INTP, ISTP, ENTP and ENFP are the six most entrepreneurial types based on the occupation statistics of the sample, see table 1. The common preference for all entrepreneurial types is perceiving (P), that is, they all are spontaneous, interested in acting by watching, trying out, adapting. The typical managerial types, ISTJ, ESTJ, and ENTJ (see Routamaa & Ponto, 1994; Routamaa, Honkonen, Asikainen & Pollari, 1997; Routamaa, Yang & Ou 2010; Routamaa & Ou 2012) are not among the top six entrepreneurial types. The most entrepreneurial types prefer a flexible, spontaneous and changing environment whereas the managerial types, in Finland, prefer a structured, organized and planned environment. What is the relationship with creativity and the most entrepreneurial types? This question will be concerned next.

TABLE 1: ENTREPRENEURS' TYPE DISTRIBUTION (CURSIVE), MIXED POPULATION'S TYPES, AND ENTREPRENEURS' RANKING POSITION AMONG THE OCCUPATIONS IN EACH PERSONALITY TYPE

ISTJ 8,9% 12,3% 32.	ISFJ 0,0% 5,4% 44.	INFJ 0,0% 1,1% 39.	INTJ 1,8% 3,5% 33.
ISTP 3,0% 2,4 9.	ISFP 1,2% 2,1% 19.	INFP 0,6% 1,2% 40.	INTP 3,0% 1,8% 6.
ESTP 7,7% 5,1% 5.	ESFP 9,5% 5,4% 3.	ENFP 8,9% 7,1% 17.	ENTP 8,9% 5,6% 12.
ESTJ 20,2% 20,2% 19.	ESFJ 7,7% 9,8% 24.	ENFJ 4,2% 5,2% 33.	ENTJ 14,3% 12,1% 23.

Methods

A Finnish version of the Myers-Briggs Type Indicator, validated by the author, was used in the study to measure the personality types. The construct validity and reliability of the indicator has been presented, for example, by Asikainen (1996). The whole sample (N=189) is presented in table 2.

Measuring creativity was very challenging. At best, it could be done in laboratory testing but it would be very unpractical in correlation research. In general, the measures of creativity or creation are non-validated questionnaires indicating attitudes, opinions, manners, etc. A totally new measure was constructed (Routamaa 2013). Analyzing 332 observations answering some 230 items, a unique four-dimension model of creativity orientation was obtained using factor analysis to indicate creativity orientations. Four factors, i.e. the dimensions of creative behavior obtained were: 1) Meticulous planner, 2) Individualistic thinker, 3) Creative idea man, and 4) Creative law challenger. Internal consistencies of all four dimensions were at least satisfactory, with all Cronbach alphas over .75.

TABLE 2: DISTRIBUTION OF PERSONALITY TYPES IN THE STUDY.

ISTJ N= 14 %= 7,41	ISFJ N= 6 %= 3,17	INFJ N= 1 %= 0,53	INTJ N= 4 %= 2,12
ISTP N= 10 %= 5,29	ISFP N= 4 %= 2,12	INFP N= 1 %= 0,59	INTP N= 5 %= 2,65
ESTP N= 12 %= 6,35	ESFP N= 10 %= 5,29	ENFP N= 21 %= 11,11	ENTP N= 16 %= 8,47
ESTJ N=37 %= 19,58	ESFJ N=20 %= 10,58	ENFJ N=5 %= 2,65	ENTJ N= 23 %= 12,17

Meticulous planners are dutiful, punctual, and systematic. They do not stand disorganization and favor logical and well-defined methods. They respect customary procedures. Individualistic thinkers live their own way, want to be him/herself without caring others' opinions, take risks to express his/her opinion without caring what others think but are social. However, they do not necessarily have creative alternatives to things they criticize. Creative idea men may not have their feet on the ground, value creative people and imagination, question things even without solutions, believe own uniqueness and dreams are important sources of innovations, think new ideas without considering their usefulness, and trust own intuition in problem solving and question profundities. Creative law challengers are self-reliant, trust that their own ideas are the best, may brake moral norms, wave aside the rules, get bored easily, are independent, and so not want to be led.

In all, 198 respondents including business university students and professionals filled both the MBTI inventory and creativity orientation questionnaire for this study. Those who got the upper quarter in creative idea man's and creative law challengers' factors will be compared to the whole sample using The Selection Ratio Type Table (see Granade & Myers, 1987; Moody, Granade & Myers, 1993) which calculates chi-square or Fischer's test depending on the number in each cell. Next, it will be analyzed, which personalities are the most innovative.

Results

Who are the innovative entrepreneurs? We looked for the answer in the upper quartile of creative idea men (n=48) and creative law challengers (n=53).

In table 3, it can be seen that preference intuitive (N), cognitive style intuitive feeling (NF), pair intuitive spontaneous (NP), pair extravert intuition (EN), type ENFP, and intuitive dominance (Ndom) are overrepresented among creative idea men. Ndom means those who's dominating, that is strongest preference, is intuition. It may be noted that also ENTP and ENTJ are overrepresented among the creative idea men even though not statistically significantly. The small number of some type observations limits the analysis. Intuition (N) with spontaneous (P) seems to be a common link to creativeness.

In table 4, the creative law challengers are compared to the total sample. It can be found that preference spontaneous (P), pairs introvert spontaneous (IP) and thinking spontaneous (TP), cognitive style intuitive spontaneous (NP) are overrepresented among the creative law challengers. Even not statistically significantly, at the type level ISTP, ENFP, ENTP and also INTP are overrepresented. Also intuitive dominance is overrepresented even though not significantly.

TABLE 3: CREATIVE IDEA MEN COMPARED TO THE TOTAL SAMPLE

Relationship Between Type and Creativity	Creative Idea Man				N	%	I
	compared with Whole Base N = 48						
ISTJ N = 0 % = 0.00 I = 0.00	ISFJ N = 0 % = 0.00 I = 0.00	INFJ N = 0 % = 0.00 I = 0.00	INTJ N = 1 % = 2.08 I = 0.98 c	E 40 I 8	83.33 16.67	1.09 0.70	
ISTP N = 3 % = 6.25 I = 1.18 ccc	ISFP N = 2 % = 4.17 I = 1.97 cc	INFP N = 0 % = 0.00 I = 0.00	INTP N = 2 % = 4.17 I = 1.58 cc	S 14 N 34	29.17 70.83	0.49*** 1.76***	
ESTP N = 1 % = 2.08 I = 0.33 c	ESFP N = 0 % = 0.00 I = 0.00	ENFP N = 13 % = 27.08 I = 2.44** cccccccccc ccc	ENTP N = 6 % = 12.50 I = 1.48 cccccc	T 29 F 19	60.42 39.58	0.94 1.10	
ESTJ N = 6 % = 12.50 I = 0.64 cccccc	ESFJ N = 2 % = 4.17 I = 0.39 cc	ENFJ N = 2 % = 4.17 I = 1.58 cc	ENTJ N = 10 % = 20.83 I = 1.71 cccccccccc	J 21 P 27	43.75 56.25	0.75 1.35	
				IJ 1 IP 7 EP 20 EJ 20	2.08 14.58 41.67 41.67	0.16* 1.38 1.33 0.93	
				ST 10 SF 4 NF 15 NT 19	20.83 8.33 31.25 39.58	0.54* 0.39 2.11** 1.56	
				SJ 8 SP 6 NP 21 NJ 13	16.67 12.50 43.75 27.08	0.41** 0.66 1.92** 1.55	
				TJ 17 TP 12 FP 15 FJ 4	35.42 25.00 31.25 8.33	0.86 1.10 1.64 0.49	
				IN 3 EN 31 IS 9 ES 9	6.25 64.58 18.75 18.75	1.07 1.88*** 0.58 0.45**	
				Sdom 1 Ndom 20 Tdom 21 Fdom 6	2.08 41.67 43.75 12.50	0.09** 1.87** 1.10 0.79	

Note: c = 1 person. Base total N = 189. Groups are independent. Print date: * < .05, ** < .01, *** < .001

I = 1, the proportion of the variable is identical to whole sample; I > 1, bigger; I < 1, smaller

TABLE 4: CREATIVE LAW CHALLENGERS COMPARED TO THE TOTAL SAMPLE

Relationship Between Type and Creativity	Creative Law Challenger				N	%	I
	compared with Whole Base N = 53						
ISTJ N = 4 % = 7.55 I = 1.02 cccc	ISFJ N = 1 % = 1.89 I = 0.59 c	INFJ N = 0 % = 0.00 I = 0.00	INTJ N = 0 % = 0.00 I = 0.00	E 37 I 16	69.81 30.19	0.92 1.27	
ISTP N = 6 % = 11.32 I = 2.14 cccccc	ISFP N = 1 % = 1.89 I = 0.89 c	INFP N = 0 % = 0.00 I = 0.00	INTP N = 4 % = 7.55 I = 2.85 cccc	S 25 N 28	47.17 52.83	0.79 1.31	
ESTP N = 3 % = 5.66 I = 0.89 ccc	ESFP N = 3 % = 5.66 I = 1.07 ccc	ENFP N = 9 % = 16.98 I = 1.53 cccccccccc	ENTP N = 9 % = 16.98 I = 2.01 cccccccccc	T 37 F 16	69.81 30.19	1.09 0.84	
ESTJ N = 6 % = 11.32 I = 0.58 cccccc	ESFJ N = 1 % = 1.89 I = 0.18 c	ENFJ N = 1 % = 1.89 I = 0.71 c	ENTJ N = 5 % = 9.43 I = 0.78 cccccc	J 18 P 35	33.96 66.04	0.58** 1.58**	
				IJ 5 IP 11 EP 24 EJ 13	9.43 20.75 45.28 24.53	0.71 1.96* 1.45 0.55**	
				ST 19 SF 6 NF 10 NT 18	35.85 11.32 18.87 33.96	0.93 0.53 1.27 1.34	
				SJ 12 SP 13 NP 22 NJ 6	22.64 24.53 41.51 11.32	0.56* 1.29 1.82** 0.65	
				TJ 15 TP 22 FP 13 FJ 3	28.30 41.51 24.53 5.66	0.69 1.82** 1.29 0.33*	
				IN 4 EN 24 IS 12 ES 13	7.55 45.28 22.64 24.53	1.30 1.32 1.26 0.59*	
				Sdom 11 Ndom 18 Tdom 21 Fdom 3	20.75 33.96 39.62 5.66	0.93 1.53 1.00 0.36	

Note: c = 1 person. Base total N = 189. Groups are independent. Print date: * < .05, ** < .01, *** < .001

It appears that intuition and spontaneousness are the basic elements of creativity. Spontaneous life style with intuition is associated with controlled chaos, and it is known that chaos leads to creative solutions.

Discussion

The results confirm the earlier studies on the relationships between personality and creativity. As mentioned, according to McCaulley (1990), riskier decisions might be expected from extraverted (E), intuitive (N), and feeling (F) types. Asikainen and Routamaa's (1997) results of resourceful thinkers and innovators corresponded quite a lot with McCaulley's (1990) view but emphasized the role of spontaneous (P). It must be noted, however, that depending on the type, feeling (F) can either restrict (e.g. ESFJ) or support (e.g. ENFP) new, daring creative solutions. As found by Brandt and Routamaa (2010), especially certain F-type women had more economic difficulties in business resulting to reorganization more often than other personalities. Creative idea men and creative law challengers are connected especially with extraversion (E), intuition (N), and spontaneous (P). Additionally, intuitive dominance (Ndom) is clearly connected with creative behavior. At the type level, ENFP, ENTP and INTP are most overrepresented among the creative factors.

The results obtained here are mainly supported also by Routamaa & Rissanen (2004) who found that ENFPs were the most willing to evaluate themselves as innovator entrepreneurs and INTJs, ISTPs and ENTPs seemed also to favor this identity slightly. ISTPs are often sole proprietors where the introvert spontaneity results original business ideas. The results also support the entrepreneurs' rankings in each type as presented in table 1. Further, as found by Routamaa, Vesalainen and Pihlajaniemi (1996) entrepreneurs with N-preference are more growth internationalization orientated and whereas S-preference entrepreneurs favor smaller, local enterprises. The results obtained here support these findings by showing that these specific entrepreneurial types are innovative personalities.

In all, the results obtained here supported by some earlier studies indicate, first, that there are certain differences in the creativity and innovativeness of different personalities. Secondly, there are certain personality types who are more likely to start their own enterprise. Some types prefer safe, risk-free and stable working environments whereas others search for self-fulfillment either in local small business or in more risky flexible environment seeking for growth or globalization. Undoubtedly, perceiving (P) is the most visible personality preference of entrepreneurs. In connection with that there may be many kinds of preference combinations. However, anyone can start up an enterprise and become an entrepreneur because there is a large variety of more or less challenging entrepreneurial identities available.

The results can be used in developing elementary and higher education and their teaching methods. Entrepreneurial education at all levels and coaches and mentors should take these personal tendencies into consideration. The results can also be used in encouraging potential people to start up a business. Both entrepreneurs and educators should have the knowledge how to develop self-knowledge needed in successful business. The Myers-Briggs Type Indicator is very useful both in research and in practical entrepreneurial training and entrepreneurial education.

References

- [1] Asikainen, V. & Routamaa, V. (1997, April). The relationship between the MBTI and the creativity orientations of managers. *Proceedings of the Second Biennial International Conference on Leadership of the Center for Applications of Psychological Type* (pp. 55-63). Gainesville, FL: Center for Applications of Psychological Type.
- [2] Brandt, T. & Routamaa, V. (2010, January). Economic Difficulties and Entrepreneurs' Type. *Proceedings of the Seventh Psychological Type and Culture—East and West: A Multicultural Research Symposium*, Honolulu, Hawaii.
- [3] Carland, J.W. & Carland, J.A. (1992). Managers, small business owners, and entrepreneurs: The cognitive dimension. *Journal of Business and Entrepreneurship*, 4(2), 55-62.
- [4] Järnlström, M. (2002). Organizational employment versus entrepreneurship: The personality approach to business students' career aspirations. *Journal of Business and Entrepreneurship*, 14(1), 103-123.
- [5] McCaulley, M. H. (1990). The Myers-Briggs type indicator and leadership. In Clark & Clark (eds.), *Measures of leadership*. Greensboro: Center for creative leadership.
- [6] Moody, R., Granade, G. & Myers, I. (1993). Selection Ratio Type Table for the Macintosh. Gainesville: The Center for Applications of Psychological Type.
- [7] Myers, I. (1992). *Introduction to Type*. CA: Consulting Psychologists Press, Inc.
- [8] Myers, I., & McCaulley, M., (1985). *MBTI Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator*. 2nd Ed. Palo Alto: Consulting Psychologists Press Inc.
- [9] Reynierse, J.H. (1997). An MBTI model of entrepreneurship and bureaucracy: The psychological types of business entrepreneurs compared to business managers and executive. *Journal of Psychological Type*, 40, 3-19.
- [10] Routamaa, V. (2011). Personality Types and Entrepreneurial Orientation. In: *Enterprise Management in a Transitional Economy and Post Financial Crisis*. Ed. Joel Glassman. China: Nanjing University.
- [11] Routamaa, V. (2013). Building Innovative Teams on Diverse Creativity. In *Rethinking Innovation: Global Perspectives*. (Eds. R. Subramanian, M. Rahe, V. Nagadevara & C. Jayachandran). Routledge, Francis&Taylor Group 978-0-415-74818-6.
- [12] Routamaa, V. & J. Ou (2012, April). Cultures and Managers' Type Structures: A Comparison of China, Finland and South Africa. *Proceedings of the 16th International Business Research Conference*. Dubai.
- [13] Routamaa, V. & A-L. Rissanen (2004, January). *Entrepreneurial Identity and Personality Types*. *Proceedings of The 8th International Conference on Global Business & Economic Development* Guadalajara, Mexico.
- [14] Routamaa, V., Yang, H. & Ou, J. (2010, January). Managers' Type Distributions in Three Continent - Do Cultures Matter, *Proceedings of the Seventh Psychological Type and Culture—East and West: A Multicultural Research Symposium*, Honolulu, Hawaii.
- [15] Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, MA: Harvard Press.

Note: Contact author for the list of references

Development of a Model for Human Capital Management for the Success of Corporates

Arihant Sogani, arihant1sogani@gmail.com
Anomitra Banerjee, anomitra.banerjee@gmail.com
Aqila Rafiuddin, aqila@dubai.bits-pilani.ac.in
BITS Pilani, Dubai Campus

Development of a Model for Human Capital Management for the Success of Corporates

Abstract

It is very difficult for an individual to do much or achieve alone but when different individuals unite and form teams, great things are possible. Thus team formation and sustenance is a very important area of research in today's world. This paper describes a novel, unique model to check team health taking commitment of individual members as the fundamental criteria. The model tries to mimic real life as closely as possible by considering all priorities any given individual might consider including family, leisure and work. This model can serve as a one-dimensional (commitment based) way to predict success or failure of teams. The paper specifies which components of the model can generate market revenue although it restricts itself from specifying exact prices. The model has potential to penetrate into our daily lives and become an indispensable part for all organizations and teams as the single way to check team health and rapport.

Introduction

Creation of effective teams is one of the most important jobs in today's goal oriented world and thus it demands the appropriate organizational environment. The information burden, task differentiation, and challenge of meeting the needs of customers provide a strong conceptual justification for teams, and there is evidence they can be effective. The idea is to engage every human in the world since that is the total available human capital which can be put together to form teams of various sizes and functions.

One of the challenges for leaders of today is that people feel team to be one single phenomenon whereas in reality there are many types of teams. Teams are different people coming together, assuming different roles, sharing a common goal, interacting with each other and performing tasks affecting the whole organization. There are many different types of teams such as (1) work teams accomplishing tasks on an ongoing basis in a specific organizational setting; (2) parallel teams addressing shared challenges; (3) project teams focusing on a one-time deliverable and have limited terms and (4) management teams are overseeing all the others.

Differences in teams are necessary to bring out diversity and also for being effective and up to the expectations. Thus it is now the job of leaders to monitor team health regularly and also find out reasons why expectations are not being met of that is the case. Thus, in this paper we create a model which can effectively help future business leaders to study the problems in the functioning of teams and make them more effective to expand profitability.

Literature Survey

Peel (1986) wrote in predicting corporate failure about results for the UK corporate sector. New variables which are not derived from profit and loss accounts and balance sheet items, but which are computed from annual company reports and accounts can be used to predict failure.

As is said 'Prevention is better than cure' researchers have made efforts to understand expected team performance. Cohen, S. Ledford, G & Spreitzer, G. (1996) gave a predictive model of self-managing work team effectiveness. They presented how teams using this model can be self dependant and increase their effectiveness to give a better profit margin to the company.

Ross, Jones and Adams (2008) gave a mathematical model to optimize selection of team members based on predictions of the team's success using a mathematical model as an empirical function of performance, behaviour, attitude, team member style and corporate culture.

Charitou, Neophytou and Charalambous (2004) drew empirical evidence for the UK European Accounting Review. They mentioned three financial variables, a cash flow, a profitability and a financial leverage variable and yielded an overall correct classification accuracy of 83% one year prior to the failure. Success is a result of creativity, flexibility and speed and not tight budgeting and control. Organizations are complex open systems deeply influenced

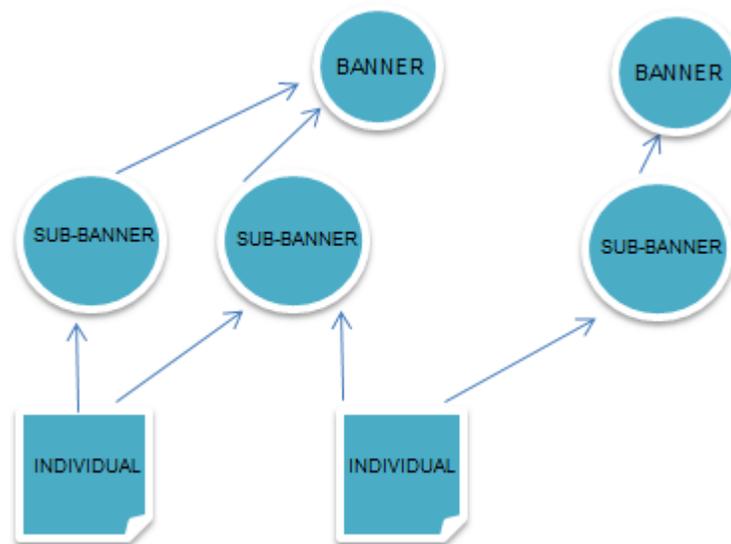
by and influencing their environment. Often intended actions will be diverted off course by external events or even by the political or cultural processes of the organization itself.

Balcaen and Ooghe carried out 35 years of studies on business failure, an overview of the classic statistical methodologies and their related problems. They understood that Any change must begin with a clear understanding of the assets and the constraints of the company’s administrative heritage. In some situations it may be necessary to underscore the company’s commitment to change by bringing new management particularly at the top levels of the company.

Modelling

Organizations, Institutions make up ‘Banners’. These ‘Banners’ are allowed to issue fresh cords for every individual who joins them. For example a university will be a banner issuing fresh cords every year for each individual who joins the university.

These cords *may* be cut when the individual leaves the organization/institution. The banner on its own does not directly interact with students. Just like in a college, there are clubs and just like in organization there are departments and project teams-so too in a banner there are sub-banners. Thus a banner contains a list of all the sub-banners which come under it.



Each banner has a unique banner number. Each banner will maintain a table like the one shown below.

BANNER:

SUB-BANNER NAME	SUB-BANNER NUMBER

... and so on as rows

The sub-banner is the direct link to the individual. The sub-banner will have four columns. The first two will be individual name and number. The next column will contain the expected commitment points for the particular row.

For example, in some college X (banner), in some club Y (sub-banner) of the college X, the requirement is to have a President, a Vice-President, a Secretary and a Treasurer. The club Y's faculty in-charge can set a minimum commitment requirement for the above post-bearers. As an example commitment level requirement of 1.5, 1.5, 1.25 and 1.25 (see individual account paragraph below-commitment levels can be between 0 and 3) can be set for them in the "expected commitment level column".

SUB-BANNERS:

Mapped to:

BANNER NAME		BANNER NUMBER	
INDIVIDUAL NAME	INDIVIDUAL NUMBER	EXPECTED COMMITMENT	ACTUAL COMMITMENT

... and so on as rows

An individual is assumed to have a total of 3 points of commitment. (The number 3 is taken randomly and has no statistical advantage over other numbers for this model).

INDIVIDUAL ACCOUNTS:

SUB-BANNER NUMBER	SUB-BANNER NAME	COMMITMENT POINTS

... and so on as rows

The sum of commitment points should sum to less than or equal to 3. However he can list several sub-banners under several different banners. For example a student might be active under the sub-banner Y of institution X and he might also be active in the sub-banner B of institution A.

Any sub-group looking to recruit individuals can request push ins from individual accounts under the banner. The push ins will follow the following algorithm:

Sub-banner s, Banner b, Individual i, Total Commitment for Individual 'i' c

Assume Sub-banner b considering recruitment of Individual i. S wants to know if i is committed to s, if not then s wants to know how open is i to add s in its commitment list.

IF s in i's commitment list THEN return i

ELSE

Return 3-c

The sub-banner can then decide to choose the individual or not to choose the individual based on those numbers.

The individual can update his commitment points on the go and these will reflect in his sub-banner account. The change in the sub-banner total will reflect in the banner account of the sub-banner. Thus the sub-banner will immediately realize the grimness of the situation and find a suitable replacement (on sudden negative indication of commitment from individual)

The individual, sub-banner and banner all have a calendar each. The individual's calendar will have the individual's account table (see above) spawning across the hours, days, weeks and years (if an individual has thought for the long term).

For example in college X at the beginning of semester student i plans to chalk out 1.5 commitment points for sub-banner academics under banner university u. On the day of registration the student fills his account calendar for the full semester with 1.5 commitment points for sub-banner academics. A week later he decides to participate in a

college fest event. He adds 0.5 commitment points for the sub-banner college fest. He will remove the 0.5 commitment points after the college fest is over.

The model is about planning. It will help individuals plan out their priorities and will let the concerned team/sub-group know about the variation in the individual's commitment in advance. The sub-group will have the last time stamp when the individual had committed to the said level of commitment points for the sub-group. Thus the sub-group might request the individual to keep updating his planned commitment level every month or week or as the case may be.

Discussion

The common mistakes that organizations make can be broadly discussed in five points.

1. Multiple personalities – A company must have its reason d'être. Otherwise decisions are made independently, depending upon local issues, or turf or latest crisis.
2. Lack of an exercise regimen – very little is done for the best people. Instead they spend an inordinate amount on remedial training, reskilling and probationary periods.
3. Power failures – stumbling around blindly in the dark. Strategies and plans are not tuned to what to "expect". What derails them is what they are not prepared for.
4. Balkanization – set of microclimates. Within this organization there are differences in the perceptions of the organization.
5. Greed – to build a new plant, to launch a new promotion, restructure without proper analysis.

The best way to prevent corporate failure is to identify the warning signs early and nip them in the bud i.e., quickly take actions to curb it and reform it. The corrective actions will be dependent on the situation at the moment. As soon as there are signs that there may be a failure it should be dealt with immediately and at that moment.

These may be related to a range of different functions within the business, such as financial management, marketing or production. It may sometimes be necessary to seek external advice to help to identify the problem. It is important that the managers of the business accept that there is a problem and that mistakes have been made and to move on to a solution, rather than apportioning blame.

The best strategy to prevent failure is to have effective management systems in place to begin with.

The management of performance has to be reviewed with new strategies and plans:

1. A bridge should be established to bridge the gap between csfs and strategic goals of the company.
2. Performance targets should be set at all levels and these should relate to the achievement of strategic objectives
3. Targets would have to be continuously reviewed against actual performance and again planned accordingly.
4. Development and additional training should be given at all times.

Conclusion

Every institution has flaws and is vulnerable in the market irrespective of how great the organization is. There is no law of nature that the most powerful will inevitably remain at the top. Anyone can fail at any point of time and most eventually do at some point of time or other. The possible causes of failure can vary from Financial, Economic, Technological and Strategic and so on. At micro level persons or societies directly connected with the corporates are adversely impacted when corporates fail. At macro level when corporates fail they may trigger economic or financial crisis that may have far reaching consequences on countries and persons not directly connected with them. But the key to prevent corporate failures and ensure profitability is to manage the most important asset of a company properly i.e., Human Resource. This paper tells in detail about a novel model which can be used to check whether the different teams in the company are functioning properly and efficiently and take necessary actions at the right time to help the company survive.

References

- [1] Laitinen.E.K. "Prediction of a newly founded firm", Journal of Business Venturing, 1992/07
- [2] Dowling, Grahame R. "Corporate reputations —the company's super brand", Journal of Brand Management, 1995.
- [3] Errol R. Iselin. "Individual Versus Group Decision-Making Performance: A Further Investigation of Two Theories In A Bankruptcy Prediction Task", Journal of Business Finance & Accounting, 1/1991.
- [4] Haines, . "Reinventing Strategic Management (Planning and Change)", The Systems Thinking Approach to Strategic Planning and Management, 2000.
- [5] Mark Gottfredson. "THE NEW LEADER'S GUIDE TO DIAGNOSING THE BUSINESS.", Harvard Business Review/00178012, 2008/02/01.
- [6] A FIGHT. "Failure and risk classification systems", Credit Risk Management, 2004
- [7] Cohen SG, Bailey DE. What makes teams work: group effectiveness research from the shop floor to the executive suite. *J Manage.* 1997;23:239-289.
- [8] Mathieu JM, Maynard TM, Rapp T, Gilson L. Team effectiveness 1997-2007: a review of recent advancements and a glimpse into the future. *J Manage.* 2008;34:410-476.
- [9] Ghorob A, Bodenheimer T. Share the Care: building teams in primary care practices. *J Am Board Fam Med.* 2012;25(2):143-145.
- [10] Hubert Ooghe & Sofie De Prucker Failure processes and causes of company bankruptcy, Vlerick Lueven Gent Working Series Paper Series 2006/21
- [11] Shilo Lifschutz & Arie Jacobi Predicting Bankruptcy: Evidence from Israel International Journal of Business and Management Vol. 5, No. 4; April 2010
- [12] Charles Onyeiwu " Financial Statement as instrument for predicting corporate Health in Nigeria - Paper presented at 4th Annual Conference of Department of Finance University of Lagos
- [13] Erkki K. Laitinen Prediction of failure of a newly founded firm Journal of Business Venturing Volume 7, Issue 4, July 1992, Pages 323–340
- [14] Sofie Balcaen^a, Hubert Ooghe The British Accounting Review Volume 38, Issue 1 March 2006, Pages 63–93
- [15] A Brabazon, PB Keenan - A hybrid genetic model for the prediction of corporate failure Computational Management Science, 2004 – Springer
- [16] Esteban Afaro Cortes, Matias Gamez Martinez, Noelia Garcia Rubio A boosting approach for corporate failure prediction Applied Intelligence Volume 27 Issue 1, August 2007 Pages 29 - 37
- [17] I.M. Premachandra^a, Yao Chen^b, John Watson^c DEA as a tool for predicting corporate failure and success: A case of bankruptcy assessment Omega Volume 39, Issue 6, December 2011, Pages 620–626.
- [18] W Steve Albechret, Conan C Albechret, Chad O Albechret Fraud and Corporate Executive , Journal of forensic Accounting Vol (V) 2004 109 -130

**Social entrepreneurship and social innovation through the lens
of the value co-creation process**

Marco Pellicano, mpellicano@unisa.it,

Carmela Tuccillo, ctuccillo@unisa.it,

Massimiliano Vesci, mvesci@unisa.it,

Orlando Troisi, otroisi@unisa.it,

Department of Management & Information Technology, University of Salerno, Italy

Social entrepreneurship and social innovation through the lens of the value co-creation process

Abstract

In the new Era of sustainability, a sub-discipline within the field of entrepreneurship called Social Entrepreneurship (SE) emerged as a global phenomenon in the academic literature. The paper aims to understand the concept of social innovation as a strategic and dynamic aspect of social entrepreneurship. Thus, an analysis of the links between social entrepreneurship and social innovation has been carried out through the lens of the value co-creation process drawing from the Service-Dominant (S-D) Logic perspective (Vargo and Lusch, 2008; Gummesson et al., 2010) and the Network Theory (Gummesson, 2007). The study aims to understand and explain what are and how works the links between social entrepreneurial activity and innovation process. As this paper demonstrates, social entrepreneurship generate “social value” in the circumstances that the development of innovative solutions spread out through forms of collaboration between social entrepreneurs and the customer involved in the value co-creation process.

Article classification: Conceptual paper

Key words: social entrepreneurship, social innovation, value co-creation, S-D logic, Network Theory

1. Introduction

In recent time, Social Entrepreneurship (SE) emerged as a new phenomenon in the area of investigation within the field of entrepreneurship and not-for-profit marketing literatures. It has been, in fact, varyingly described as a human response to social and environmental problems (Haugh, 2007), and refers to innovative activity with a social purpose (OECD 1999; Wallace 1999) in either the for-profit sector, such as in social-purpose commercial ventures (Dees and Anderson 2003). However, current conceptualizations of social entrepreneurship fail to adequately consider the concept of social innovation as a strategic and dynamic aspect of social entrepreneurship in the value co-creation process. To fill this gap, this paper contributes to an understanding of the existing theories and practices of social entrepreneurship and innovation in order to demonstrate that a combination of these two concepts is vital to organizational success and value. It recognizes the value co-creation as a useful path to investigate innovation and social entrepreneurship and to construct a holistic model that seeks to explain the links between social entrepreneurial activity and the innovation process.

2. Conceptual background and research questions

2.1. Literature review on Social Entrepreneurship (SE)

The recent field of social entrepreneurship is growing rapidly and attracting increased attention among both academics and practitioners in different sectors (Dacin *et al.*, 2010; Mair and Marti 2006; Zahra *et al.*, 2008; Defourny and Nyssens 2008; Hulgård, 2010). As emerged from literature review “social entrepreneurship is the engine of positive, systemic change that will alter what we do, how we do it, and why it matters” (Neck *et al.*, 2009, p. 7). This concept was first investigated in the 1990’s (Galaskiewicz, 1985; Waddock and Post, 1991; Selsky and Smith, 1994), and since then, Scholars have proposed more definitions including the creation of non-profits (Dees, 1998), the development of new structures to solve social problems (Fowler, 2000), the definition of innovative behavior for social objectives (Brooks, 2009; Mair and Marti, 2006), and the creation of social value activities (Austin *et al.*, 2006). Alternative theory argues that social entrepreneurship refers to the adoption of environmentally responsible practices and products (Schaper, 2002; Linnanen, 2005; Gerlach, 2000). Besides, it refers to the “creation of viable socioeconomic structures,

relations, institutions, organizations and practices that yield and sustain social benefits” (Fowler, 2000, p. 649). Generally, the term social entrepreneurship refers to the ”entrepreneurial activity with an embedded social purpose” (Austin *et al.*, 2006), and the social entrepreneur is viewed as an entrepreneur with a social mission (Dees 2001; Martin and Osberg 2007). Thus, this phenomenon embrace the simultaneous pursuit of economic, social, and environmental goals by enterprising ventures (Haugh, 2007) in which social entrepreneur is a change agent in the social sector (Dees 2001). In fact, “the primary mission of the social entrepreneur being one of creating social value by providing solutions to social problems” (Dacin *et al.*, 2011, p. 1204). In this field, “social value has little to do with profits but instead involves the fulfillment of basic and long standing needs such as providing food, water, shelter, education and medical services to those members of society who are in need” (Certo and Miller, 2008, p. 267). Social entrepreneurship is, therefore, the process of creating a social enterprise, that is an independent entity created to fulfill a social purpose but financially sustainable because of trading activities (Brooks, 2008) and a social entrepreneur is someone who creates a social enterprise to take advantage of an opportunity (Haugh, 2005). Besides, Scholars have identified four components of social entrepreneurship: 1) entrepreneurs – the people who pursue change; 2) ideas – how change can be achieved; 3) opportunities – for disrupting the equilibrium; and 4) organizations – which seek to bring about change (Light, 2008, p. 17). Thus, SE is “an effort by an individual, group, network, organization or alliance of organizations that seeks sustainable, large scale change through pattern-breaking ideas in what governments, non-profits and business do to address significant social problems” (Light, 2008, p. 12). Current literature recognizes three main steps which become useful in the overall comprehension of the SE process summarized in the table below (table 1). These are: opportunity definition; organizational launch and functioning and, financial resource collection and leveraging.

TABLE 1: THREE STEP IN THE SOCIAL ENTREPRENEURSHIP PROCESS

Opportunity definition	<p>“The cognitive process followed by entrepreneurs as they intentionally identify a solution to a specific problem or need because of diverse motivations, including financial rewards” (Dorado and Haettich, 2004: 6).</p> <p>“Opportunities to bring into existence new goods, services, raw materials, and organizing methods that allow outputs to be sold at more than their cost of production” Mair and Marti (2004: 3)</p>
Organizational launch and functioning	To become concrete, a social innovation needs a social impact theory, a specific business model and a composite social strategy (Guclu, <i>et al.</i> , 2002).
Financial resource collection and leveraging	The most quoted source of financing is a particular kind of patient capital (Bank of England, 2003): social venture capital or venture philanthropy (VP).

Source: adapted from Perrini and Vurro, 2006.

Additional studies consider social entrepreneurship as “a process involving the innovative use and combination of resources to pursue opportunities to catalyze social change and/or address social needs (Mair and Marti, 2006, pag. 37). It refers to a general process or overall business culture where social needs are addressed in an innovative manner, as an entrepreneurial activity with a social orientation or intent (Johnson, 2000) addressing a range of social issues in innovative and creative ways (Nicholls, 2006).

“Social entrepreneurship is a concept which represents a variety of activities and processes to create and sustain social value by using more entrepreneurial and innovative approaches and constrained by the external environment” (Brouard and Larivet, 2009 p. 11). In this context, “social enterprises have in common the principles of pursuing business-led solutions to achieve social aims, and the reinvestment of surplus for community benefit” (Haugh, 2006, p. 5). They are – defined simply – organizations seeking business solutions to social problems (Thompson and Doherty, 2006, p. 362). In this optic, “social entrepreneurs measure success by creating social capital, social change and addressing social needs. In contrast to for-profit organizations, in which profits are often distributed to their owners and shareholders, economic value creation in social enterprises is perceived as a by-product which allows the organizations to achieve sustainability and self-sufficiency (Fowler, 2000; Seelos and Mair, 2005). The

surplus production of social enterprises is reinvested in the development of organizational activities that ensures viability in tackling social problems or to be used for the benefit of people other than those who control the organizations (Defourny, 2001).

Literature review reveals that social entrepreneurship consists in an innovative process that include the identification of new solutions and opportunities to social problems (Shane, 2003; Mair and Marti 2004). In fact, it implies the ability to resolve social problems and satisfy a variety of stakeholders “needs to attain legitimacy over time” (Mair and Noboa, 2003; Uzzi, 1997). Despite, the increasing academic interest in the field of social entrepreneurship, few studies have investigated the links between social entrepreneurship and social innovation through the lens of the value co-creation process. Drawing from the theories of S-D Logic and Network Theory (Dacin *et al.*, 2010), this paper discusses the functions and contributions of social innovation in the process of creating and disseminating value. The forthcoming conceptual sections of this article attempt to address this limitation through the following research questions:

RQ1. *What are the links between social entrepreneurial activity and innovation process?*

RQ2. *What is the contribution of social innovation in the process of value co-creation?*

2.2 Social Innovation as a strategic and dynamic aspect of social entrepreneurship

Starting from the review of the main definitions of social entrepreneurship in literature, it is highlighted that social entrepreneurship is an innovative activity, in which innovation play an important role, as shown in the table below (table 2).

TABLE 2: SOCIAL ENTREPRENEURSHIP VS SOCIAL INNOVATION

Definitions	Primary components
<i>Social Entrepreneurship, to “one that emphasises innovation and impact, not income, in dealing with social problems”. The entrepreneur always searches for change, responds to it, and exploits it (Dees, 2003).</i>	- innovation - change
<i>“SE is seen as the innovative use of resource combinations to pursue opportunities aiming at the creation of organisations and/or practices that yield and sustain social benefits” (Mair and Noboa, 2003, p. 5).</i>	-innovative use of resources - opportunities - social benefits
<i>“Social entrepreneurship can be defined as the development of innovative, mission-supporting, earned income, job creating or licensing ventures undertaken by individual social entrepreneurs, non-profit organisations, or non-profits in association with for-profits”(Pomerantz, 2003, p. 25).</i>	- innovation
<i>Social entrepreneurship, the entrepreneurship leading to the establishment of new social enterprise, and the continued innovation in existing ones” (Sullivan Mort et al., 2003, p. 76).</i>	- innovation
<i>Social entrepreneurship that creates innovative solutions to immediate social problems and mobilizes the ideas, capacities, resources and social arrangements required for sustainable social transformations (Alvord, 2004, p. 262).</i>	- innovative solutions
<i>Social entrepreneurship is the construction, evaluation, and pursuit of opportunities for transformative social change carried out by visionary, passionately dedicated individuals (Roberts and Woods, 2005).</i>	- opportunities - vision - passionately individuals
<i>“We define social entrepreneurship as innovative, social value creating activity that can occur within or across the non-profit, business, or government sectors” (Austin et al., 2006, p. 2).</i>	- innovative - value creation
<i>“Innovative and effective activities that focus strategically on resolving social market failures and creating new opportunities to add social value systematically by using a range of resources and organisational formats to maximise social impacts and bring about changes” (Nicholls, 2006, p. 23)</i>	- innovative and effective activities - new opportunities
<i>“Social entrepreneurship is exercised where some person or group: 1) aim(s) at creating social value, either exclusively or at least in some prominent way; 2) show(s) a capacity to recognise and take advantage of opportunities to create that value (‘envision’); 3) employ(s) innovation, ranging from outright invention to adapting someone else’s novelty, in creating and/or distributing social value; 4) is/are willing to accept an above-average degree of risk in creating and disseminating social value; and 5) is/are unusually resourceful in being</i>	- new opportunities - employ(s) innovation - degree of risk - social value

<i>relatively undaunted by scarce assets in pursuing their social venture” (Peredo and McLean, 2006, p. 64).</i>	
<i>Social entrepreneurship strives to achieve social value creation and this requires the display of innovativeness, proactiveness and risk management behaviour. This behaviour is constrained by the desire to achieve the social mission and to maintain the sustainability of existing organisation. In doing so social entrepreneurs are responsive to and constrained by environmental dynamics. They continuously interact with a turbulent and dynamic environment that forces them to pursue sustainability, often within the context of the relative resource poverty of the organisation” (Weerawardena and Mort, 2006, p. 32)</i>	- innovativeness - proactiveness - risk management - social mission
<i>“We define social entrepreneurship as an innovative, social value creating activity that can occur within or across the non-profit, business, or government sector” (Wei-Skillern, et al., 2007, p. 4).</i>	- innovative and social value creating activity
<i>“We view social entrepreneurship broadly, as a process involving the innovative use and combination of resources and social arrangements required for sustainable social transformations” (Mair and Marti, 2007, p. 37).</i>	- innovative use - combination of resources
<i>“Innovative approaches to social change” or “using business concepts and tools to solve social problems” (Brock and Ashoka, 2008, p. 3).</i>	- innovative approaches
<i>Innovative and resourceful approaches to addressing social problems” (Case, 2008, p. 1).</i>	- innovative approaches
<i>“Social entrepreneurship encompasses the activities and processes undertaken to discover, define and exploit opportunities in order to enhance social wealth by creating new ventures or managing existing organisations in an innovative manner” (Zhara et al., 2008, p. 118).</i>	- innovative manner
<i>Social entrepreneurship can be defined as entrepreneurship that aims to provide innovative solutions to unsolved social problems. Therefore it often goes hand in hand with social innovation processes, aimed at improving people’s lives by promoting social changes (OECD 2010, p. 5).</i>	- innovative solutions - social innovation - social changes
<i>“The innovative use of resources to explore and exploit opportunities that meet a social need in a sustainable manner” (Mair and Ganly, 2010).</i>	- innovative use of resources - opportunities

Source: our elaboration.

Generally, social entrepreneurship involves the application of new approach in an effort to create social value (Certo and Miller, 2008) and social entrepreneurs are considered social innovators in a process of continuous adaptation, and learning (Casson, 2005, Dees, 1998). In fact, social enterprises primary objective is to create social value for the community that they serve through innovative business approaches (Kong, 2010, pag. 1). In this optic, social enterprises define innovative approaches in order to pursue social missions, improve their efficiency and effectiveness, and, at the same time, maximize their capability to constantly manage complex social problems in the competitive environment (Borins, 2000; Sullivan-Mort *et al.*, 2003; Waddock and Post, 1991; Weerawardena and Sullivan-Mort, 2006). According with the Schumpeterian thoughts, social entrepreneurship is inextricably linked with social innovation (Schumpeter, 1934; Casson, 2005; Certo and Miller, 2008; Mort *et al.*, 2002; Tan *et al.*, 2005). In fact, it can be defined as a particular form of entrepreneurship that aims to provide innovative solutions to unsolved social problems. Therefore, it often goes hand in hand with social innovation processes, aimed at improving people’s lives by promoting social changes (OECD 2010, p. 5). Social entrepreneurship consists in “the development of innovative, mission-supporting, earned income, job creating or licensing ventures undertaken by individual social entrepreneurs, non-profit organizations, or non-profits in association with for-profits” (Pomerantz, 2003, p. 25). In this optic, “social entrepreneurship strives to achieve social value creation and this requires the display of innovativeness, proactiveness and risk management behavior. This behavior is constrained by the desire to achieve the social mission and to maintain the sustainability of existing organization. In doing so social entrepreneurs are responsive to and constrained by environmental dynamics. They continuously interact with a turbulent and dynamic environment that forces them to pursue sustainability, often within the context of the relative resource poverty of the organization” (Weerawardena and Mort, 2006, p. 32).

Current literature recognizes that social entrepreneurship encompasses the activities and processes undertaken to discover, define and exploit opportunities in order to enhance social wealth by creating new ventures or

managing existing organizations in an innovative manner” (Zhara *et al.*, 2008, p. 118). Thus, social entrepreneurship is viewed as a process where individuals (social entrepreneurs) identify opportunities, locate resources and create value to serve a mission that sustains social values (Dees, 1998). To create value, social entrepreneurs adopt specific aptitudes and qualities, for example, they look for more innovative sources (McLeod, 1997) and at the same time they present a certain risk-tolerance and a strong desire to control the surrounding environment (Prabhu, 1999).

Literature review reveals some definitions of social entrepreneur in which the links with innovation is evident, as shown in the table below (table 3). Social entrepreneur, in fact, creates innovative solutions, mobilizes the ideas, capacities, resources and social arrangements for sustainable social transformations (Alvord, 2004, p. 262). He “play the role of change agent in the social sector by: adopting a mission to create and sustain social value (not just private value); recognizing and relentlessly pursuing new opportunities to serve that mission; engaging in a process of continuous innovation, adaptation, and learning; acting boldly without being limited by resources currently in hand; exhibiting a heightened sense of accountability to the constituencies served for the outcomes created” (Dees, 1998, p. 4). It is recognized that social entrepreneurs are “creative individuals who question the status quo, exploit new opportunities, refuse to give up and remake the world for the better” (Bornstein, 2004, p. 15).

TABLE 3: SOCIAL ENTREPRENEURS VS SOCIAL INNOVATION

Authors	Definitions	Primary components
Dees, 1998	<i>Social entrepreneurs “play the role of change agents in the social sector by: adopting a mission to create and sustain social value (not just private value); recognizing and relentlessly pursuing new opportunities to serve that mission; engaging in a process of continuous innovation, adaptation, and learning; acting boldly without being limited by resources currently in hand; exhibiting a heightened sense of accountability to the constituencies served for the outcomes created” (p. 4).</i>	new opportunities continuous innovation
Bornstein, 1998	<i>A social entrepreneur is a path breaker with a powerful new idea who combines visionary and real-world problem-solving creativity, has a strong ethical fiber, and is totally possessed by his or her vision for change.</i>	new ideas problem solving creativity
Prabhu, 1999	<i>Social entrepreneurs are persons who create and manage innovative organizations or ventures whose primary mission is the social change and the development of their client group.</i>	innovative entrepreneurs
La Barre, Fishman <i>et al.</i> , 2001	<i>Social entrepreneurs are dedicated innovators who are determined to tackle some of society’s deepest challenges by embracing new ideas from business.</i>	innovators

Source: our elaboration.

Thus, social enterprises are forced to be innovative in all their social value-creating activities to deliver public services (Dart, 2004; Fowler, 2000) and for the purpose of improving efficiency and tightening control. In this context, innovativeness is considered one of three core behavioral dimensions in the framework of social entrepreneurship along with proactiveness and risk management (Weerawardena and Mort, 2006). Social enterprises have, in fact, the ability to understand social needs, and then fulfill these needs through creative activities and initiatives (Austin *et al.*, 2006, p. 2).

2.3 Service Dominant Logic and Network Theory

In the academic literature, Service-dominant logic (S-D logic) is an alternative perspective to the traditional, goods-dominant (G-D) logic paradigm (Vargo and Lusch 2004, 2008a, 2008b; Vargo 2008). The traditional G-D view is based on the essential assumption that goods are the bases for exchange. According to G-D logic, the purpose of a firm is the production and distribution of products and goods which are embedded with value during the production process. In line with this view, the customer is thus seen as a “consumer,” of the value created by the firm (Normann, 2001). As emerged from literature review, the most important distinction between G-D logic and S-D logic is found in the different conceptualization of service. In the S-D logic view, “service” is the application of competences, for example knowledge

and skills for the benefit of another party. This perspective signals a shift not only from thinking about value creation in terms of outputs to processes and outcomes but also in thinking about the primacy of resources involved from operand resources usually tangible, that require some action to make them valuable – to operant resources – usually intangible, dynamic that are capable of creating value. In this optic, “all participants in the value-creation process be viewed as dynamic operant resources. Accordingly, they should be viewed as the primary source of firm and national innovation and value creation” (Lusch and Vargo, 2008, pag 2). On the premise that service is the fundamental basis of exchange (Vargo and Lusch, 2004), service systems are “value co-creation configurations of people, technology, value propositions connecting internal and external service systems and shared information” (Maglio and Spohrer, 2008, p. 18). It is essentially “a value co-creation model that sees all actors as resource integrators, tied together in shared systems of exchange – service ecosystems or markets” (Vargo, 2011, p. 220).

It is recognized that value co-creation is one of the core concepts of S-D logic perspective and has been used to convey the customer’s (and others’) collaborative role in value creation. Based on these conceptualizations, the customer’s role in co-creation is fundamental, in fact, value is always co-created. The process of value co-creation derived from an experience created in conjunction with other stakeholders (Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004, 2008; Vargo, *et al.*, 2008). In contrast with the traditional models of value creation, which suggest that value is created by firms (Normann, 2001), today, customers are always active participants in the value co-creation process. In this dynamic view, value co-creation is mediated by networks of interconnected relationships (Chandler and Vargo, 2011). The importance of network configurations in value co-creation has recently emerged due to the growing contribution in the context through which value is derived (Akaka and Chandler, 2010; Chandler and Vargo, 2011; Chandler and Wieland, 2010). Networks are, in fact, an excellent means of studying relational phenomena (Iacobucci, 1996, p. 15) and are considered as critical variables in the co-creation of value (Chandler and Vargo, 2011). In this optic, “when relationships embrace more than two people or organizations, complex patterns will emerge – networks. We, therefore, also talk about networks of relationships. What happens between the parties in a relationship is called interaction” (Gummesson, 2006, p. 342). The nature of networks in service ecosystems contribute in the process of value co-creation and in the formation of social contexts that frame exchange (Chandler and Vargo, 2011).

According to Ford and Hakansson (2005), interactions must be studied under a network paradigm because relationships cannot be understood through the perspective of a single company. In fact, “not only organizations live in networks, but also consumer citizens and employees” (Gummesson, 2006, p. 349). The adoption of network relationships is useful in understanding different viewpoints, processes, actors and relationships of value co-creation. In fact, the study of networks helps to identify different levels of micro and macro interaction in different aspects of exchange. Each individual actor requires a network of resources, in fact “no company alone has the resources, skills or technologies that are necessary to satisfy the requirements or solve the problems of any other and so is dependent on the skills, resources and actions of suppliers, distributors, customers and even competitors to satisfy those requirements” (Ford *et al.*, 2002, p. 2). This means that “the network setting extends without limits through connected relationships, making any business network boundary arbitrary” (Anderson *et al.*, 1994, p. 3). The nature of networks underscores the importance of collaboration in value co-creation. “The consideration of value co-creation through networks of relationships emphasizes the continual need for actors to interact and exchange with others in order to access the resources they need or want” (Lusch and Vargo, 2006a). In this view, value co-creation is derived through the interaction and exchange of resources, especially knowledge and skills, in a network of firms, customers, and other stakeholders.

3. Combining social entrepreneurship and social innovation through the lens of the value co-creation process

This section provided an analysis of the links between social entrepreneurship and social innovation through the lens of the value co-creation process. According to this, social innovation success depends on the interaction between customer and entrepreneur. In fact, an high degree of interaction creates the value-added innovation. Customers have the key resource of external information and act as value co-creator for social innovation. They negotiate with entrepreneurs about new requirements concerning collaboration for service innovation (). So, when the social entrepreneurs incorporate customers’ experience and capabilities into service co-creation, they are able to create

innovation. Furthermore, social innovation depends on a value network to embrace the customer’s co-creation of value (Michel *et al.*, 2008). Resources, especially operant resources in the network play a significant role in innovation development (Lusch *et al.*, 2008). During the social innovation process, there exist plenty of interactive activities between customer and firm. The idea of co-creation denotes an approach where customers are actively involved and take part in the design of a new offering. More specifically, co-creation has been defined as an active, creative, and social process, based on collaboration between firms and customers. Therefore, it is essential to clarify for whom value is co-created (what value there is for the customer and the firm), what kind of value is co-created (what kind of value), by what kind of resources and furthermore, through what kind of mechanism (table 6).

TABLE 6: VALUE CO-CREATION QUESTIONS

Value What kind of value for whom?		Co By what kind of resources?	Creation Through what kind of mechanism?
Customer	- What is the customer benefit? - How is the customer’s value creation supported?	- What firm resources are integrated into the customer’s value-creating processes?	- What is the mechanism through which firm resources are integrated into the customer’s processes?
Firm	- What is the firm benefit? How is the firm’s value creation supported?	- What customer resources are integrated into the firm’s value-creating processes?	- What is the mechanism through which customer resources are integrated into the firm’s processes?

Source adapted from: Saarijärvi *et al.*, 2013.

According to the S-D logic, value is not created by a firm alone, but applying all actors’ resources such as suppliers’ and customers’ resources (Michel *et al.*, 2008) in a process of networked collaboration (Miles and Kastrinos, 95). Value is co-created through the combined efforts of providers, suppliers, partners, customers, and other actors and is differentiated by different customers. So, it might know how customers co-create value by participating or using a firm’s offering (Michel *et al.*, 2008).

According to Vargo and Lusch (2004, 2008), customers, always, contribute to the co-creation of value. In this view, “the terms co-creation, co-production, and prosumption refer to situations in which consumers collaborate with companies or with other consumers to produce things of value.” (Humphreys and Grayson, 2008, p. 963). As this paper demonstrates, social entrepreneurship generate “social value” in the circumstances that the development of innovative solutions spread out through forms of collaboration between social entrepreneurs and the customer involved in the value co-creation process (see fig. 1). Social organizations view consumers as critical assets and attempt to build strong ongoing relationships with them in order to create social value. Today, the common understanding of the innovation process builds on the observation that it can be seen as an interactive relationships between producers and customers. These actors are seen to work together in an interactive process of discovery, realization and exploitation of a new idea. Innovative performance today is seen to a large extent as the ability of an innovative social organization to establish networks with customers.

The traditional approach towards value creation and innovation assigns a passive role to the customer described as, unaware and isolated with no participation in product development processes. This approach positions the customer ‘outside the firm’ whereas the execution of value creation and innovation happens inside the firm (Prahalad and Ramaswamy, 2004). In contrast to this perspective, the customer is valued as an active and integral part of the value creation process in the customer-centric approach. Today, the collaboration between customers and the social entrepreneurs occurs on a two-way communication basis. In fact, consumers want to take an active role in the new product development process of organizations in order to create value that corresponds to their demands. According to Prahalad & Ramaswamy (2004), social enterprises should acknowledge the fundamental shift from an organization-centric to customer-centric approach. As the customer-centric approach connects value creation to the market, organizations are able to benefit from customer experiences, ideas and knowledge through a direct interaction. Furthermore, Baldwin and Von Hippel (2009) stress the desirability of a transition from the entrepreneur-centric approach to an “open collaborative innovation” model by concluding that it will enhance social welfare.

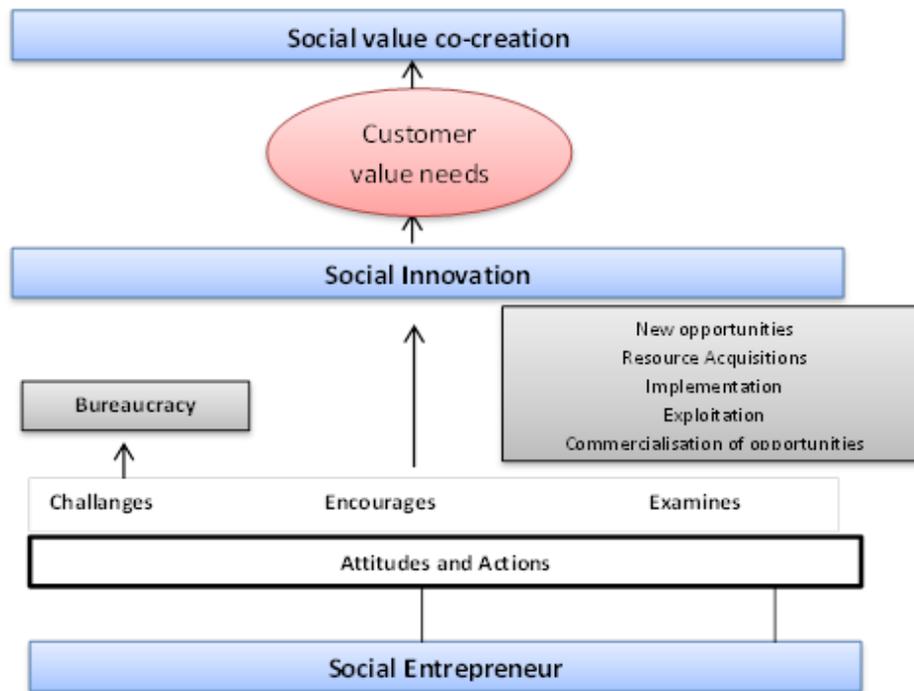


FIG. 2: SOCIAL ENTREPRENEURSHIP AND SOCIAL VALUE CO-CREATION

Source: adapted from McFadzean et al., 2005.

4. Implications and Conclusions

Some of the most effective methods for cultivating social innovation start from the idea that people are competent interpreters of their own lives and competent solvers of their own problems. Most social innovation is not created by a single entrepreneur but in collaboration with related stakeholders including customers, civil society organizations, local businesses, researchers and so on. It is becoming imperative for social organization involve customers in the social innovation. By engaging customers in the product or service innovation process, social entrepreneurs can hope for a better understanding of their needs and better acceptance of the innovation if the customer is involved in the design. The study has found that social entrepreneurship and social innovation are positively related to each other and a combination of the two is vital to organizational success and sustainability in today's dynamic and changing environment. Social innovation is a dynamic and holistic element in the process of value creation. Hence, the main practical implication of this paper is the identification of the missing link between social innovation, social entrepreneurship and end service user. The study could be considered a first step in a stream of research on different aspects of social entrepreneurship which are yet unexplored. This may involve in future, quantitative surveys, new practices and research challenges concerning social entrepreneurship in a service dominant logic perspective.

References

- [1] Akaka, M. A., & Chandler, J. D. (2011). Roles as resources: A social roles perspective of change in value networks. *Marketing Theory*, 11(3), 243-260.

- [2] Akaka, M.A., Vargo, S.L., & Lusch, R.F. (2012). An exploration of networks in value cocreation: A service-ecosystems view. *Review of Marketing Research* 9, 13-50.
- [3] Alvord, S. H., Brown, L. D., & Letts, C. W. (2004). Social entrepreneurship and social
- [4] Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: Same, different, or both? *Entrepreneurship Theory and Practice*, 30(1), 1-22.
- [5] Baldwin, C., & Von Hippel, E. (2011). Modeling a paradigm shift: From producer innovation to user and open collaborative innovation. *Organization Science*, 22(6), 1399-1417.
- [6] Bornstein, D. (2004). *How to Change the World: Social Entrepreneurs and the Power of New Ideas*. New York: Oxford University Press.
- [7] Certo, S.T., & Miller, T. (2008). Social entrepreneurship: Key issues and concepts. *Business horizons* 51(4), 267-271.
- [8] Chandler, J. D., & Vargo, S. L. (2011). Contextualization and value-in-context: How context frames exchange. *Marketing Theory*, 11(1), 35-49.
- [9] Crumpton, M. A. (2012). Innovation and entrepreneurship. *Bottom Line: Managing Library Finances, The*, 25(3), 98-101.
- [10] Dacin, P. A., Dacin, M. T., & Matear, M. (2010). Social entrepreneurship: why we don't need a new theory and how we move forward from here. *The academy of management perspectives*, 24(3), 37-57.
- [11] Galindo, M.Á., & Méndez-Picazo, M.T. (2013). Innovation, entrepreneurship and economic growth. *Management Decision* 51(3), 501-514.
- [12] Gummesson, E. (2007). Case study research and network theory: birds of a feather. *Qualitative Research in Organizations and Management: An International Journal* 2(3), 226-248.
- [13] Gummesson, E., Lusch, R.F. & Vargo, S.L. (2010). "Transitioning from service management to service-dominant logic: observations and recommendations". *International Journal of Quality and Service Sciences*, 2(1), 8-22.
- [14] Hakansson, H., & Ford, D. (2002). How should companies interact in business networks?. *Journal of Business Research*, 55(2), 133-139.
- [15] Haugh, H. (2005). A research agenda for social entrepreneurship. *Social enterprise journal*, 1(1), 1-12.
- [16] Johnson, S. (2000). Literature review on social entrepreneurship. *Canadian Centre for Social Entrepreneurship*, 16.
- [17] Kong, E. (2010). Innovation processes in social enterprises: an IC perspective. *Journal of Intellectual Capital* 11(2), 158-178.
- [18] Lusch, R. F., Vargo, S. L., & Wessels, G. (2008). Toward a conceptual foundation for service science: Contributions from service-dominant logic. *IBM Systems Journal*, 47(1), 5-14.
- [19] McDonald, R.E. (2007). An investigation of innovation in non-profit organizations: The role of organizational mission. *Non-profit and Voluntary Sector Quarterly*, 36(2), 256-281.
- [20] McFadzean, E., O'Loughlin, A., & Shaw, E. (2005). Corporate entrepreneurship and innovation part 1: the missing link. *European Journal of Innovation Management*, 8(3), 350-372.
- [21] Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of world business*, 41(1), 36-44.
- [22] Michel, S., Brown, S. W., & Gallan, A. S. (2008). An expanded and strategic view of discontinuous innovations: deploying a service-dominant logic. *Journal of the Academy of Marketing Science*, 36(1), 54-66.
- [23] Neck, H., Brush, C., & Allen, E. (2009). The landscape of social entrepreneurship. *Business Horizons* 52(1), 13-19.
- [24] Normann, R. (2001). *Reframing business: When the map changes the landscape*. New York: Wiley.
- [25] Perrini, F., & Vurro, C. (2006). Social entrepreneurship: Innovation and social change across theory and practice. *Social entrepreneurship*, 57-85.
- [26] Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of interactive marketing*, 18(3), 5-14.
- [27] Roberts, D., Woods, C. (2005). Changing the world on a shoestring: The concept of social entrepreneurship. *University of Auckland Business Review* 7(1), 45-51

- [28] Saarijärvi, H., Kannan, P. K., & Kuusela, H. (2013). Value co-creation: theoretical approaches and practical implications. *European Business Review*, 25(1), 6-19.
- [29] Schumpeter, J.A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle* (Vol. 55). Transaction Publishers.
- [30] Seelos, C., & Mair, J. (2007). Profitable business models and market creation in the context of deep poverty: a strategic view. *The academy of management perspectives* 21(4), 49-63.
- [31] Short, J.C., Moss, T.W., & Lumpkin, G.T. (2009). Research in social entrepreneurship: Past contributions and future opportunities. *Strategic Entrepreneurship Journal* 3(2), 161-194.
- [32] Turner, D., & Martin, S. (2005). Social entrepreneurs and social inclusion: building local capacity or delivering national priorities?. *Intl Journal of Public Administration* 28(9-10), 797-806.
- [33] Vargo, S. L. (2008). "Customer Integration and Value Creation: Paradigmatic Traps and Perspectives". *Journal Of Service Research*, 11 (2), 211–215
- [34] Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of marketing*, 68(1), 1-17.
- [35] Vargo, S. L., Lusch, R. F., & Morgan, F. W. (2006). Historical perspectives on service-dominant logic. *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, ME Sharpe, Armonk, NY, 29-42.
- [36] Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of marketing Science*, 36(1), 1-10.
- [37] Vargo, S. L., Maglio, P. P., & Akaka, M. A. (2008). On value and value co-creation: A service systems and service logic perspective. *European management journal*, 26(3), 145-152.
- [39] Yeoh, P. (2012). Social entrepreneurship: Social enterprise governance. *Business Law Review* 33(10), 232-244.

Measuring the Intagibles Valuation & Reporting Intagibles

**An Empirical Analysis to Assess Intangible Assets in Tunisia and Its Relevance in the
Knowledge - Based Economy**

*Soumendra K. Dash, s.dash@afdb.org
African Development Bank, HQs, Tunisia*

*Dhekra Azouzi, adhekra@yahoo.fr
Tunis El Manar University, Tunisia*

An Empirical Analysis to Assess Intangible Assets in Tunisia and Its Relevance in the Knowledge - Based Economy

Abstract

It is the first work to measure intangible investment in Tunisia based upon the CHS methodology and different databases and statistics. Expenditures on intangibles in Tunisia amounted to around 11 billion US dollar, accounting for around 25% of GDP in 2008. This paper attempts to find out how important intangible assets are in the present knowledge based economy like Tunisia. Intangible assets are country's weightless wealth which helps to obtain real growth and real profit for a company. Every country should understand that paying needed attention to knowledge management in general and to intangible assets especially may help to understand and nurture its core strength and competencies. This is how each developing and underdeveloped countries can create their own competitive advantage in the world market. More precisely, the country's intangible assets should be priced at fair market value. The strategic relevance of intangible assets management for a country's competitiveness, understanding the way these assets are converted into value is of paramount importance. It is very vital for the country to harness the value from its intangible assets. The further research in this field will develop not only the direction of testing researched models but also the direction of developing and testing other models of intangible assets valuation, management and optimal allocation of intangible assets in various countries.

1. Introduction

In today's economy, the intangible assets play a key role and have become very important in achieving sustainable development. The developed economies are becoming knowledge based economy. These intangible assets are generally obtained from traditional factors like labour, land and capital. However, the differentiating factors among the developing and developed countries have been the quality of knowledge management and innovation management. The main characteristics of innovation based economies are: knowledge replaces traditional factors of production land and labour as the fundamental factors of production. Intangible assets create a significant part of the value differentiator between countries. Intangible assets are non-physical sources of value generated by discovery, unique organisation designs, or rare human resource practices. These are non-material sources or creating country's value based on the cities capabilities, organisations' capabilities. They are non-physical in nature, they are capable of producing future economic benefits, and they are protected legally through intellectual property rights. The country like Tunisia has been able to harness economic benefits significantly in the past but the momentum has been lost due to changing socio-economic and political priorities.

2. Measurement of investment in intangibles

Various definitions of intangible capital are associated to various approaches to measuring intangibles: on the one hand, definitions of intangibles are mostly due to Schumpeter's classification based on product and process development, organizational change, management, marketing and finance (Schumpeter 1934). However, despite this great variety in defining intangibles, the common and durable problem is the 'invisibility' of many of these intangible assets which makes their measurement difficult. On the other hand, According to Sichel (2008), there are three recent approaches that can be used to measure intangibles; these approaches are the financial market valuation (Hulten et al., 2008), the alternative performance measures (Cummins, 2005) and the direct expenditure approach (Nakamura, 1999 and 2001). The latter approach was adopted By Corrado, Hulten and Sichel (CHS 2005; 2009) who developed a wide array of expenditure based measures for many intangibles employed by American firms and distinguished between three categories of intangible assets: computerized information, innovative property, and economic competencies.

Originally, the CHS method was applied to American data and it has now been the corner stone of many studies focused on different countries.

We use the same methodology as CHS (2005; 2009) for Tunisia for the purpose of creating a set of estimates for intangibles in Tunisia. It is worth to note that for some intangibles, it has been very difficult to construct reliable measures over time and it has been compulsory to make a number of assumptions to cope with the limited available information. Our estimates are a starting point in this area of study as it is the first attempt to apply the CHS methodology to measure intangibles in Tunisia.

2.1. Computerized Information

According to Corrado *et al.* (2005), computerised information consists of two elements: software and computerized database. In other terms and according to Miyagawa & Hisa (2013), 'Computerized information consists of custom and packaged software, and own account software'. For the custom and packaged software, we have no indication about how to calculate their value. That's why; we assume that this expenditure is about 35% of the total Information and communication technology (ICT) expenditure. These data is obtained from World Bank. However, we have total Information and communication technology expenditure per capita; to obtain the total of these expenditures for the whole population, we multiply the ICT expenditure by the population.

Since spending on software is not capitalized in the Tunisian System of National Accounts, we use the Miyagawa & Hisa's (2013) estimation method inspired from the JIP database. Hence, we begin by estimating the number of workers who are involved in the development of software for their own firms and their salaries to be able to assess the value of own account software. These data are obtained from the World Bank and the National Institute of Statistics (INS); the number of these workers is available for a period of four years spanning from 2005 to 2008, but we have the wage data only for 2007, this salary is in Tunisian dinars and we have to convert it in US dollars. In these conditions, we have assumed that the average monthly salary of each worker does not fluctuate from 2005 to 2008. The next step is to multiply the number of workers by the annual salary to obtain an estimation of the own account software investment.

2.2. Innovative Property

Two categories of innovative property: research & development and oil & gas & mineral exploration. These data are available from the World Bank and the National Institute of Statistics (INS). However, data extracted from INS are in Tunisian dinars and should be converted in US dollars. It is worth to mention that the second category is the sum of three groups as they are mentioned in the INS: oil and natural gas extraction, mines and petroleum refining.

As in Corrado *et al.* (2009) and Barnes & McClure (2009), we find other categories of innovative property:

- copyright and licence costs
- development costs in financial industry;
- new architecture and engineering design; and
- other science and engineering services (purchased and own-account).

Copyright and licence costs are obtained from the World Bank as charges paid for the use of intellectual property.

The financial services industry consists in research and development of new processes and products. Since it is not explicitly observed, development costs in the financial industry are approximated by only 20% of the total of financial services according to Corrado *et al.* (2005). These data are obtained from the INS and are in Tunisian dinars.

For new architecture and engineering design, Corrado *et al.* (2005) estimated their value as 50% of total expenditure on architectural and engineering. For our work, these data are obtained from the INS and are in Tunisian dinars.

Own-account other science and engineering investment is given by 'internal expenditure in research & development' calculated by the National Observatory of Science and Technology. However, purchased

other science and engineering investment were taken into account in other parts of expenditures as it is mentioned by Baldwin *et al.* (2009).

2.3. Economic Competencies

The third category of intangible assets is economic competencies. It consists of the brand equity, the firm specific human capital and the organizational capital.

Inspired by anterior studies focused on intangible assets, this study includes advertising expenditure as brand equity, direct and indirect firm expenses on training as firm-specific human capital and purchased and own-account organizational capital in the economic competencies category.

Advertising expenditures are estimated as 60% of total expenditures on advertising services and products. These data are due to MediaScan agency and Sigma Group.

Direct firm expenses are the costs of developing workforce skills such as training and indirect expenses consist of the opportunity cost of employee time spent on formal and informal training. Only direct expenses are available in the National accounts of Tunisia. Hence, we consider that investment on firm-specific human capital is given by the data on direct firm expenses.

Investment in organizational capital is composed of purchased investment in organizational structure and own-account investment in organizational structure. According to Corrado *et al.* (2005), purchased investment in organizational structure is approximated by the total revenue of the management consulting services industry which is between 10 and 20 TND million (UTICA Survey, 2011). To cope with this lack of data, we consider that this expenditure is of 15 TND million for the period of study. For the own-account investment in organizational structure, it is estimated as 20% of labour compensation of total management occupations (Corrado *et al.*, 2005). For this reason, we multiply the number of managers by their average salary. These data are obtained from the INS. However, it is important to mention that we have only the average salary for 2007. That's why we assume that this salary does not fluctuate for the period of study.

3. Results

In this part, we measure intangible assets in Tunisia in nominal terms for the period spanning from 2005 to 2008.

TABLE 1. NOMINAL INTANGIBLE INVESTMENT IN TUNISIA (IN BILLIONS OF US \$)

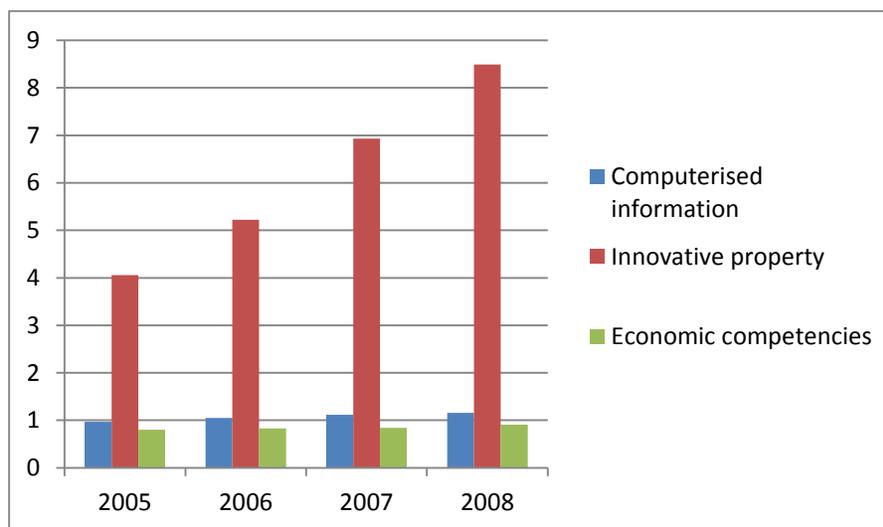
	2005	2006	2007	2008
Computerised information:	0.97	1.05	1.12	1.16
* Custom and packaged software	0.52	0.58	0.66	0.73
* Own account software	0.45	0.47	0.46	0.43
Innovative property:	4.06	5.22	6.93	8.49
* Scientific R&D	2.97	3.3	3.8	4.6
* Mineral exploration	0.56	1.63	2.51	3.09
* Copyright and licence costs	0.07	0.1	0.1	0.12
* Development costs in financial industry	0.03	0.03	0.04	0.04
	0.12	0.12	0.13	0.13

* New architecture and engineering design * Other product development, design and research	0.31	0.33	0.35	0.41
Economic competencies	0.8	0.83	0.84	0.91
Brand equity	0.02	0.04	0.04	0.05
Firm-specific human capital	0.38	0.39	0.4	0.45
Organisational capital	0.4	0.4	0.4	0.41
Total intangible investment	5.83	7.1	8.89	10.56
Intangible assets as a % of the GDP	16.95	18.27	19.87	24.21

Source: Authors' calculations

As it is shown in Table 2 and figure 1 and referring to Barnes and McClure's (2009) work, we can see a clear similarity between Tunisia, Japan and Germany in the composition of intangible investment (in terms of the main categories) with an important weight for the innovative property (Table 2). The share of the innovative property in the total amount of nominal investment in intangibles was more than 60%. Scientific research & development is the most important component of the innovative property. This result is, however, in contradiction with Muntean's (2013) findings mentioning that the economic competencies are the dominant category in intangible assets. Computerised information and economic competencies have approximately the same proportion in the composition of intangible assets in Tunisia.

FIGURE 1. COMPOSITION OF THE TOTAL INTANGIBLE INVESTMENT IN TUNISIA



Source: Authors' calculations

Figure 1 gives us an idea about the evolution of the intangible assets, three categories between 2005 and 2008; it seems clearly that only the innovation property has been growing during this period while

computerised information and economic competencies have known a steady stagnation. This can be explained by the government's efforts to encourage innovation.

To build just a small idea about the contribution of intangible investment to economic growth, we have calculated, in the last row of table 1, the percentage of these assets in the GDP.

The corresponding percentages are so high and exceed the rates mentioned in anterior studies. In fact, intangible assets account for 9% of GDP in Japan (Miyagawa and Hisa, 2013), 11% for United Kingdom in 2004 (Marrano and Haskel, 2006), 9.1% for Finland in 2005 (Jalava and Alenen, 2007), 5.2% in Italy and Spain, 7.1% in Germany and 8.8% in France (Hao, Manole and van Ark, 2008), 10% for the Netherlands over 2001-2004 (Van Rooijen et al., 2008), 13.2% for Canada in 2008 (Baldwin et al., 2011).

4. Conclusion

In Tunisia, it is found that innovation is playing a dominant role in intangible assets where are economic competencies and computerized information do have very small contribution to the overall economic growth and both of them have very small contribution. Intangible assets like Economic efficiencies and computerization, information & technology are not growing over the years in Tunisia. However, it seems that the government does encourage the growth of one type of intangible assets to improve i.e. innovation. The aggregate impact of intangible assets could be much more widely felt in the growth of Tunisian economy if the government could understand and encourage the simultaneous growth of all the intangible assets in the country. The knowledge, innovation are the intangible assets which have become a locomotive that defines the contemporary development of all the countries in the modern knowledge based world.

References

- [1] Baldwin, J.R., W. Gu and R. Macdonald (2011), Intangible Capital and Productivity Growth in Canada, Statistics Canada, mimeo.
- [2] Barnes, P. & McClure, A. (2009), Investments in Intangible Assets and Australia's Productivity Growth, Productivity Commission Staff Working Paper.
- [3] Corrado, C., Hulten, C., & Sichel, D. "Measuring Capital and Technology: An Expanded Framework," in C. Corrado, J. Haltiwanger, and D. Sichel (eds), Measuring Capital in the New Economy, Studies in Income and Wealth, Vol. 65, University of Chicago Press, Chicago, 2005.
- [4] Corrado, C., Hulten, C., & Sichel, D. (2009). Intangible capital and U.S. economic growth, Review of Income and Wealth, International Association for Research in Income and Wealth, 55 (3), 661- 685, 09.
- [5] Cummins, J. (2005), A new approach to the valuation of intangible capital, in C. Corrado, J. Haltiwanger and D. Sichel (eds), Measuring Capital in the New Economy, National Bureau of Economic Research, Studies in Income and Wealth, Vol. 65, Chicago: University Chicago Press, pp. 47-72.
- [6] Hao, J., V. Manole and B. van Ark (2008), Intangible Capital and Growth – An International Comparison, Economics Program Working Paper Series, EPWP No. 08-14, Conference Board Inc., New York, December.
- [7] Hulten, C. R., J. Hao, K. Jaeger (2008), Intangible Capital and the Valuation of Companies: A Comparison of German and US Corporations (Interim report), The Conference Board, New York.
- [8] Jalava, J., Aulin-Ahmavaara, P. & Alanen, A. (2007). Intangible capital in the Finnish business sector, 1975-2005, ETLA Discussion Papers no. 1103.
- [9] Marrano, M. G., Haskel, J., & Wallis, G. (2009). What happened to the knowledge economy? ICT, intangible investment and Britain's productivity record revisited, The Review of Income and Wealth , 55 (3), September, 686-716.
- [10] Miyagawa, T. and S. Hisa. (2013). "Measurement of Intangible Investment by Industry and Economic Growth in Japan", Japan, Public Policy Review, 9 (2), pp. 405-432.
- [11] Muntean, M. T. (2013). Intangible Assets and Their Contribution to Productivity Growth in Ontario, Ontario Ministry of Finance.
- [12] Nakamura, L. (1999), Intangibles: What put the New in the New Economy?, Federal Reserve Bank of Philadelphia Business Review, July/August, pp. 3-16.
- [13] Nakamura, L. (2001), What is the US Gross Investment in Intangibles? (At Least) One Trillion Dollars A Year!, Working Paper 01-15, Federal Reserve Bank of Philadelphia, Philadelphia.
- [14] Sichel, D. (2008), Intangible capital, in S.N. Durlauf and L.E. Blume (eds), The New Palgrave Dictionary of Economics, 2nd edition, Basingstoke: Palgrave Macmillan.
- [15] Van Rooijen-Horsten, M., D. van den Bergen and M. Tanriseven (2008), Intangible capital in the Netherlands: A benchmark, Discussion Paper No. 08001, Statistics Netherlands, The Hague.

**Intellectual capital information in sustainability reports:
an analysis of Italian Banking sector**

*Maria Assunta Baldini, maria.baldini@unifi.it
Department of Business and Economics
University of Florence, Italy*

*Romilda Mazzotta, romilda.mazzotta@unical.it
Giovanni Bronzetti, giovanni.bronzetti@unical.it
Department of Business and Law
University of Calabria, Italy*

Intellectual capital information in sustainability reports: an analysis of Italian Banking sector

Abstract

In a knowledge-based economy Intellectual Capital is a main source for companies to gain competitive advantage. This study focuses on banking sector, which is one of the most knowledge-intensive industries. The aim of this paper is to examine empirically the level and the extent of Intellectual Capital (IC) information in the sustainability reports over the years 2006 and 2012.

Several empirical studies have examined the quantity and the nature of IC information disclosure in annual reports in different industries and countries, but few studies have analyzed the ICD in the financial sector. Banks policies regarding how they contribute to the conservation of energy and natural resources and recycling activities are important aspects of their social responsibility activities.

Introduction

The process of globalization, increasing competition, the development of IT, the prevalence of soft elements, intangible and human factors that have characterized the last few decades, have changed the sources of value and competitive advantage (Cordazzo, 2007; Petty and Guthrie 2000; Goh, 2007) and have changed the way companies operate. The assets that create value and create a competitive advantage to the company are no longer the machinery and equipment as intangible assets (Roos et al., 1997; Teece, 2000; Bontis, 2002), such as knowledge, information, the skills and competences (Roos et al., 1997; Quinn 1992; Nonaka and Takeuchi, 1995; Edvinsson and Malone, 1997; Choo and Bontis, 2002). The value of a company, therefore, depends not only on what can be accounted for, but also the not capitalized intangible assets, such as intellectual capital (Swart, 2006; Bernard et al. 2003; Teece, 2000).

Intellectual capital (from now will be used IC) is now recognized as one of the most important sources of value and competitive advantage (Edvinsson and Sullivan, 1996; OECD, 2006; Ordonez de Pablos, 2003).

The new international context has also influenced the banking sector deeply changing the competitive environment. Banks appear special for several reasons. First, they offer a wide variety of services, accept deposits and make loans, may purchase bonds (Matthews and Thompson, 2008); provide financial intermediation services similar to other financial institutions and offer service of liquidity and payment. It is the quality of services provided to customers that makes the difference and this depends on the intellectual capital within the bank. Factors for a long time underestimated and lightly managed, such as the strength of the relationship of the bank, its brand, the corporate culture and the values of human resources have become, with increasing competitive pressures and the progressive deterioration of profit margins, clear strategic priorities of these organizations. In such a context, the organizations, on one hand, and stakeholders, on the other hand, are interested in disseminating information on intellectual capital, the first, and to have information, seconds. External communication on intangibles, in fact, enhances the image, visibility and reputation of the bank, generating positive effects on performance.

In addition, through most complete and articulated disclosure, it complies with the provision of the law laid down in the third pillar of Basel II, which drives in order to increase the disclosure of both qualitative and quantitative nature for stakeholders. Given, therefore, the importance of intellectual capital, it is important to determine whether the companies have changed their practices in response to the disclosure of such changes.

The existing literature has analyzed the extent and nature of intellectual capital generally with a cross-country approach. Among these studies (Guthrie and Petty, 2000; Bukh et al, 2005; Bontis et al. 2003; Ordonez, 2003), those focusing exclusively on the financial sector and banks in particular are still limited (Khan and Ali, 2010; Mention, 2011; Abdifatah Haji and Mubaraq, 2012). The present paper fits in this last field. The aim of the contribution is, in fact, to study the nature and extent of the information of the components of intellectual capital (human capital, structural and relational) in the Italian banking sector companies. The choice of the banking sector for the analysis has different motivations. In the first place, it represents an interesting field of research, given the type of activity, a high

content of knowledge, which characterizes them. In addition, this sector, like others, has been affected by deeply changes that have created the necessity to develop different skills than in the past, making the management of intellectual capital one of the vital aspects of these organizations.

The management of intellectual capital has become in the new context more complex and characterized by a high degree of uncertainty, one of the driver to deal with the negative results that have characterized the sector as a result of the profound changes in the competitive environment. Banks, in other words, were pushed to expand the range of its powers, to apply innovative approaches, as well as to adopt strategic and organizational structure more dynamic and oriented to the strategic management of intangible resources. Even an external element should have an influence on the level of disclosure or the advent of Basel II and specifically the third pillar entitled "Market discipline". The objective of Basel II is to increase the disclosure of both qualitative and quantitative nature of the stakeholders¹, in particular on issues related to the operational risk management (such as procedures and policies related to operational risk management processes and information systems aimed at monitoring operational risk, or aspects of structural capital). These characteristics mean that the banking sector will come up as an interesting area to conduct research on intellectual capital (Mavridis and Kyrmizoglou, 2005; Goh, 2005; Reed et al., 2009).

Italy was chosen for two reasons. First, banks are a central sector in the Italian economy and should develop their information on intellectual capital; second, knowledge on intellectual capital in Italian companies are limited (Bozzolan et al., 2003; Bozzolan et al., 2006) and absent knowledge on the banks.

The analysis is conducted using the method, most widely used in the literature of similar studies, of content analysis. The nature and extent of information on intellectual capital are analyzed by examining the social reporting. The information thus obtained was summarized in an indicator of disclosure at the corporate level and subcategories. The main objective of the analysis is to evaluate, over time, the nature and the extent to which firms in the banking sector publicly provide information on their intellectual capital as a whole and for sub-category.

Compared to the existing literature, this paper allows to get an overview of intellectual capital disclosure with reference to Italian banks, context not yet investigated in spite of its dominant role in the economy; answers the question of longitudinal type information in terms of intellectual capital reporting (Mention, 2011) and highlights the relationships between the different components of intellectual capital. The paper is complementary to the studies of Bozzolan et al. (2003) and Bozzolan et al. (2006), who analyze intellectual capital disclosure in Italy with the exception of the financial sector, thus bridging the gap in the literature.

This paper is organized into three parts. The first part consists of introduction, definition of intellectual capital and literature review. The second part examines the research objective and the methodology. The last part analyzes data and present findings. Conclusion, limitation of study and ideas for further research are also described in the last part.

Theoretical background

Defining Intellectual Capital

There are several definitions that try to explain intellectual capital, since the beginning of its research (Brooking 1996; Edvinsson and Malone, 1997; Sveiby, 1997; Lev, 2001; Lev and Zambon, 2003). Stewart (1997) defines intellectual capital as "knowledge, information, intellectual property and experience that can be put to use to create wealth", whereas Bontis (1998) describes intellectual capital as "a set of intangibles (resources, capabilities and competences) that drives the organizational performance and value creation". Sveiby (1997) asserts, instead, that "Intellectual capital includes all employees, organizational knowledge and their abilities to create value added and led to sustainable competitive advantage", whereas Edvinsson e Malone (1997) define intellectual capital as the own of knowledge, information, intellectual property, technology, organizational, personal and professional skills that provide the company a competitive advantage in the market.

Numerous frameworks have been developed to classify and monitor intellectual capital (Brooking, 1996; Marr et al, 2004; Sveiby, 1997; Bontis, 1998) and the literature agrees in identifying intellectual capital as the combination of human resources (human capital), structural (structural capital) and relational (relational capital) of a company (Sveiby, 1997; MERITUM Project, 2002).

Human capital is the set of knowledge, skills, abilities, level of education, experience, talent, innovation, motivation, creativity, leadership, business skills, managerial skills, culture and business philosophy, managerial attitudes, individual and group experience, ability to face and solve problems. This section included skills (including knowledge and abilities); the attitude (motivation, leadership quality management) and intellectual agility (the innovative skills of the members of the company) (Bontis et al. 1999; Bontis, 2002; Daum 2003; Dubra, 2010).

Structural and organizational capital is know-how encoded within the corporate structure, the capacity for innovation, the efficiency of production processes and business consistency with the objectives of the corporate culture of the business, the degree of alignment and cohesion of the management and the structural capacity to meet and enhance their human resources, technologies, procedures, risk assessment methodologies, software, databases, patents, communication systems (Bontis, 2002; Daum 2003).

Finally, *relational capital* is the relationships established with the market and with their customers. It is therefore a wealth outside the company, is not inherent in the corporate structure. Included in relational capital are corporate image, network, long-term contracts, collaborations and cooperations (Bontis, 2002; Daum 2003).

The interaction of these three key elements generates value; management tends (more or less consciously) to enhance positive interactions between these elements extending the "area of value creation." In this sense the intellectual capital is more than the simple sum of these resources (Bontis, 1996; Bontis, 1998; MERITUM Project, 2002), in fact, closely interrelated with each other.

Why banking sector?

Banks are service companies with a high content of knowledge (knowledge-intensive) (Eurostat 2005), which essentially operate through human resources with high professionalism and operational processes which involve a major effort in the development and transmission of information (Rebora, 2003). In Italy they play an important role and, in fact, dominate the Italian financial system, representing at least 85% of the entire financial system (International Monetary Fund, 2012).

The sector, as well as in other countries, has undergone a big change that began as a result of deregulation, technological change and globalization. The development of new technologies has reduced costs and has changed/improved the quality and variety of services that the bank can provide customers (Berger et al., 2010), facilitated the development of new products and new channels to provide services, new banking and management costs (Beccalli, 2007), but at the same time has encouraged the presence of new entrants (Gardener and Molyneux, 1993). On one hand, deregulation and financial globalization, opening up to the international flow of capital, have increased the competitiveness and led to the introduction of new virtual services. On the other hand, the progressive reduction of barriers to entry (direct consequence of deregulation) and the greater ease of specialization within the field, parallel to the standardization of financial products and the rapid evolution of demand, have contributed in decisive extent, to raise the threshold of profit financial intermediaries, making it more complex and critical management of banking. Banks have, therefore, had to deeply rethink themselves seeking new business strategies (from a balance-sheet activities to off-balance, greater involvement in the capital market), new models of doing business (e-banking, mobile banking, role of technology), new business models (subcontracting, outsourcing, strategic alliances) and M&A. These changes have affected the nature and activities of the banks and created the need to develop new skills and competencies (human capital), but also in terms of organizational change processes and technologies (structural capital) and relationships with stakeholders (relational capital).

Intellectual capital in banks has its own specific such as: high and strong relation with customers, trust and reputation as the basis of competitive advantage, the information component of the production and distribution processes; the relational nature of long-term relationship with customers; the necessity for a rapid adaptation of the behavior of people in the light of the new product/process; the relevance of the service and assistance in the competitive policies of differentiation; the centrality of the participation of people to service system of the industry (Campbell, 2010).

Increasing competitive pressures, arising from the phenomena mentioned above and the increased complexity of the management of banking activity can thus be considered as determinants of the reasons for the increasing orientation to the strategic management of intangibles in the financial services. In banks, the main role is played by

human capital. Human capital is difficult to develop and managers must always seek to motivate employees in order to reduce the propensity to leave the bank.

Aside from the human contribution, banks face other typical characteristics of knowledge-intensive activities, such as technology and the frequent interaction between employees and customers. Still, banking activity implies a close relationship with customers, which is largely based on the integration of information and communication technologies to the development of new products and services, as well as for automation of process. The increasing automation in the manage of banking operations has a direct impact on the role of technology and, at the same time, however, raises concerns about security issues (confidential information, information accessibility, etc.) and processes for managing operational risks (operational risk management process). Operational risk is defined by Basel II as the risk of losses achieved in inadequate internal processes, human error, failures in operating systems or due to external events. With the advent of new ways of carrying out the business activity, such as online banking, banks could benefit from this by developing new services and / or products. Still critical to the bank is the quality of relationships with the supervisor, with the supervisory bodies (Bank of Italy, Consob, with reference to Italy). The reputation and trust-based relationships are other intangible factors (Castelo Branco & Rodrigues Lima, 2006). Finally, an external element, the advent of Basel II, and in particular, the third pillar entitled " Market disciplines ", should have an influence on the level of disclosure. The objective of Basel II is to increase the disclosure of both qualitative and quantitative nature for stakeholders. More specifically, the purpose of the third pillar is to " Encourage market discipline by Developing a set of disclosure requirements which allow Market participants to assess key pieces of information on the aim of application, capital, risk exposures, risk assessment procedures, and hence will the capital adequacy of the institutions " (Basel II, p. 226-228). These changes are reflected in the structural capital, and in particular we expect a greater disclosure of those items that are more directly related to the *operational risk management* (such as procedures and policies related to operational risk management processes and information systems aimed at monitor operational risk).

Each element of intellectual capital is, therefore, a critical resource for banks that must be managed internally, but should also be disclosed in order to build a good reputation (Toms, 2002; Xifra and Ordeix, 2009). On the other hand a good reputation helps to maintain a sustainable competitive advantage.

Literature review

Essentially two are the main field of study related to intellectual capital: studies that measure intellectual capital in economic-quantitative terms and studies on intellectual capital disclosure directed to highlight information on intellectual capital in the same way that the economic-financial information can influence the decisions of a potential investor (Rees and Sutcliffe, 1994).

Focusing on the latter topic, as our contribution falls in it, the first study is Guthrie and Petty (2000). The authors develop a framework of characteristics/attributes of intellectual capital, derived from Sveby's Intangible Asset Monitor to encode and analyze the annual reports of 20 listed companies in Australia for the year 1998, with the purpose of determining the level of the IC disclosure (ICD) in the Australian context. From this study many others start, generally focused on a single country, some analyse the presence of information on intellectual capital, others also the extension and others the quality of disclosure (Guthrie & Petty, 2000; Abeysekera, 2000; Brennan, 2001; Bozzolan et al., 2003). Generally the analyses are cross-industry even if sometimes the analysis focuses on a particular sector (Shareef and Davey, 2006; Scheneider and Samkin 2008). Limited are those that include banks in their sample analysis (Williams, 2001; Abdolmohammadi, 2005; Bontis, 2002; Goh and Lim, 2004; Guthrie and Petty, 2000; Oliveras et al., 2008; Vandemaele et al. 2005; Vergauwen and Alem, 2005; Oliveria et al., 2010; Khan and Khan, 2010) or focused only on the banking sector (Khan and Ali, 2010; Mention, 2011; Haji and Mubaraq, 2012). Banking activity, in fact, is a high-knowledge business services and its characteristics are suitable to be analysed in terms of IC, which represents a critical resource in the process of corporate value creation. The activities of banks requires human resources with a good education, qualified and continuously updated (Alvesson, 2000), generally involves relationships with customers and rely, in large part, to the development of new products and services, integration of information and communication technologies (ICTs) (Mention & Bontis, 2012).

Khan and Ali (2010) are the first authors to present a study that analyses the annual reports to assess the ICD in 20 listed banks in Bangladesh in the period 2007-2008. The framework of analysis is Sveiby (1997) as modified by Guthrie and Petty (2000). The authors, in order to take into account the characteristics of the banking sector, insert other items, such as "banks recognition for services", "banks market share", "banks reputation for services" and "number of training for employee." The method of analysis is the content and the items used are 21. The data are qualified with the value of "0" if the information is absent and "1" if the information is present and the unit of analysis is the word count. The information that prevail are those on human capital (65%) followed by those on the relational capital (20.8%), and those relating to structural capital (14.2%).

The second study is Mention (2011), who examines the practices of voluntary reporting on intellectual capital by analyzing the annual report of five European banks. The analysis is conducted over a period of nine years (2001-2009) through the content analysis, that identifies for each of the three categories (human capital, structural capital and relational capital), five subcategories² and different indicators. The framework used is Guthrie and Petty (2000) modified to take account of the peculiarities of the banking environment. The information acquired are qualified with the value "0" if absent, "1" if qualitative and "2" if quantitative in nature. The unit of analysis is the text unit. The analysis shows an increase in all categories of intellectual capital in the period and on average it should be noted that the category of major interest is human capital (43 % of the information), followed by the relational capital (34%) and then structural capital (23%).

The third study deals with the ICD in the banking sector is Haji and Mubaraq (2012), who examines, for the period 2006-2009, the annual reports of 20 Nigerian banks. These authors do not adopt a specific framework of reference even if they adopt the classic division of intellectual capital. The researchers identified 44 items and qualify the information with "0" if absent and "1" if present. The most consistent information are those relating to structural capital (average 36%), followed by those on human capital (34%) and then by the relational capital (30%).

All studies above cited were conducted in other countries; the absence of previous research justifies exploratory approach of this study, recommended in those situations in which knowledge about a particular topic are limited (Selltis et al., 1976). In the three studies mentioned, the method of research is content analysis³. This method, in fact, is the most appropriate in studies of disclosure of intellectual capital in annual reports, social reporting and other corporate documents (Yamagami & Kokubu, 1991; Guthrie & Petty, 2000; Unerman, 2000; Brennan, 2001; Bozzolan et al. 2003; Oliveira et al, 2006; Beattie and Thomson, 2007; Cordazzo, 2007; Vergauwen et al, 2007; Abeyesekera, 2008 Abeyesekera & Guthrie, 2005; Oliveras et al, 2008).

Research objective and methodological approach

Objective of this study is to investigate the amount and the type of intellectual capital information (human, relational and structural capital) reported in the sustainability reports of Italian banking firms. The analysis is conducted on a voluntary reporting documents, such as new forms of corporate disclosure, that may be useful to provide information based on intellectual capital (Zambon, 2003; Cordazzo, 2005) for the years 2006 and 2012. Specifically, the analysis is carried on the sustainability reports. The methodology of analysis, in line with the existing literature, is content analysis, which is a useful method to extract information (April et al., 2003), which allows to identify the different components of intellectual capital and to understand, analyze and describe information about the intellectual capital in the documents selected for the analysis. The objective of this method can be found to represent the behaviour of organizations in terms of intellectual capital disclosure.

This method consists in classifying the information contained within the document analyzed within a predefined category of items identified with the intent to capture aspects of intellectual capital that you want to analyze. The basic assumption of content analysis is that the amount of information available reflects the importance of the information (Krippendorff, 1980). The application of content analysis involves the classification of the information available in the various categories in line with a predefined schema or identified criteria (Guthrie and Petty, 2000; Abeyesekera, 2008). The application of content analysis involves reading the document of social reporting and coding of information based on the framework identified. In the contribution we have chosen to examine the level and extent of information on intellectual capital in the documents of voluntary reporting, in particular in sustainability reports, available on the website of the banks. It is, in other words, interested in analyzing the voluntary disclosure on IC, as it is considered important in

order to provide a complete view of the firm (Campbell and Rahman, 2009). The research analyzed the need for information to decision makers reveal that market participants consider important and useful information on the IC to make investments (Abhayawansa and Guthrie, 2010).

The items used to make the analysis follows the pattern for intangibles of Sveiby (1997), who identifies the internal structures (structural capital), the external structures (relational capital) and employee competence (human capital). To take account of the purpose and object of the analysis, the items of analysis have been modified according to the sector analyzed, in order to have a better convergence with the item that much more likely to be reported by banking institutions (Guthrie & Petty, 2000). In this context, useful references are Mention (2011), Shih et al. (2010) and Ordonez (2003), as will be specified. The content analysis, following the literature (Krippendorff, 1980; Weber, 1990), was developed in the following steps: a) definition of the unit of analysis; b) defining the categories and c) development of an unambiguous coding rules.

Definition of the unit of analysis

With regard to the first phase, the existing literature identifies as a unit of analysis a word, a sentence or paragraph. Milne and Adler (1999) believe the word is not reliable, because it has a different meaning depending on the context of reference of the sentence and is therefore considered the most appropriate sentence for this type of analysis. However, since a sentence may contain more information, including on different aspects of intellectual capital in order to avoid bias in the analysis could be considered the unit of text as the unit of analysis; in this case, the different information needs to be captured for the different components of intellectual capital. Items have been investigated focusing on information and not on the expression of the single word. Therefore the research has sought and counted the information expressed in the sustainability reports concerning each single item. Have been deleted the double information on the same item and information contained in the table and charts have been counted only in case if they supply an additional information not explained in the body of the report.

Defining the category

In this paper, intellectual capital is defined and analyzed using three broad categories: human, structural and relational capital.

Human capital consists of the set of skills and knowledge of employees who can be further improved with training. It includes also experiences that can be developed with training programs. Human capital can be analyzed at micro level (individual) or macro level (enterprise).

Relational capital is linked to the organization and its relationship with external elements such as customers, suppliers and shareholders. Examples of relational capital in banks are customers, brand loyalty, customer satisfaction, strategic alliance and coalitions.

The structural capital can be, instead, defined as knowledge created by an organization and which can not be separated from the same.

Consistent with the existing literature (Bontis, 2003; Guthrie and Petty, 2000; Striukova et al. 2008) for each category were identified sub-categories (items) and indicators (Table 2), trying to capture the most important aspects with regard to context analysis. The selection of items is the most critical aspect (Marston and Shrivess, 1991, Bukh et al., 2005) and in order to make this choice less subjective, items were selected taking into account the items identified in Mention's study (2011). Mention (2011) identifies a framework of analysis with reference to the study of Shih et al. (2010) on human capital in financial institutions and the study of Guthrie and Petty (2000) for the structural capital and relational adapting the items according to the banking sector. These items have been integrated with the indicators identified by Ordonez (2003) and subsequently with indicators derived from the study of some sample documents.

The coding process of intellectual capital information

The data was first coded by category and then by subcategory. In line with the purpose of this study to concentrate on the qualitative character of intellectual capital disclosure, repetitions were ignored. In order to identify the level of disclosure, the information was coded in a dichotomous way, whose value was set at "1" if the item is present and "0" otherwise. It was made this choice in order to avoid areas of subjectivity that tend to be present when the assignment of the value includes a weighing (Williams, 2001). The extent of disclosure was measured by counting the frequency

of the presence of the three categories and their subcategories. The frequency, in fact, indicates the importance of a particular element (Krippendorff, 2004). Finally we constructed a Disclosure indexes (ICI) (Haniffa and Cooke (2005); Ghazali (2007)). ICI calculate “the number of information-related items that a given report contains based on a predefined list of the possible items” (Bukh et al., 2005). The total disclosure score was computed as the unweighted sum of the scores of each item (Cooke, 1989). All items were considered relevant to all firms. The formula to calculate ICD_i is the following:

$$ICD_i = \frac{\sum_{j=1}^n D_{ij}}{n} \quad (1)$$

where D_{ij} assumes the value of “1” if were found information on the item and zero otherwise and “n” is the maximum number of items reported in the document.

The use of disclosure indices in studies of accounting and reporting of business practices is widely used (Marston and Shrivies, 1991, Guthrie et al., 2004), as these studies represent an aspect of the quality of disclosure that may be captured by a measure "sum" (Beattie, 2002; Bukh PN, 2005). To mitigate the main problem of content analysis (accuracy of information), the collecting data was conducted on sustainability documents separately by all the three authors and then compared where it showed discrepancies.

Sample and data

Listed banking sector firms in the Italian Stock Exchange are initially selected to represent the sample of the study. However data of some companies have been omitted because they are not fulfilling the sampling requirements of this study. Under such requirements, companies should have published their social reports for 2006 and 2012. In line with this requirements, thirteen firms have been excluded from the sample and four retained. The selected document for the analysis is the social reporting. The banks listed on at 31/12/2012 were seventeen, but only six draw up documents of voluntary reporting in five years. None of the analyzed banks draw up a real intellectual capital reports. All documents used are freely available online. The final sample consists of 4 companies, one (Monte dei Paschi Group) was excluded because of its Sustainability Reports 2012 could not be compared with 2006 because it consists only indicators and do not disclose narrative part. Therefore our final sample consists of the following companies: 1) Unicredit Bank, 2) Credito Valtellinese, 3) Ubi Bank and 4) Carige Group.

Results

Descriptive Analysis

Only 24% of the companies draw up sustainability reports in the period time considered. In banking sector, the main role is played by human capital and relational capital; in fact the examined companies disclosed information mainly on these type of resources while the lowest incidence occurs on structural capital both in 2006 and 2012.

Table 1 displays the number of human capital, relational capital and structural capital reported by the four aforementioned institutions over two-year period, 2006 and 2012. As illustrated in the table, the level of information disclosed follows a ascendant trend. To a certain extant, this observation supports the proposition that disclosure of intellectual capital increases over time, especially after the entry into force of the third pillar of Basel II (market discipline). In absolute terms, relational capital consistently ranks first in this study, unlike what is reported in the study of Mention (2011), both in 2006 (716) and in 2012 (837); human capital holds the second place (261 in 2006; 488 in 2012), while structural capital land on the third on (161 in 2006 and 168 in 2012). This result highlights the importance for the banking sector of the relational capital: this means trust and credibility from its customers and in generally from its stakeholders. In relative terms, the ranking indicates that relational capital is most disclosed, followed by human and then structural capital, which is consistent with prior studies (e.g. April et al., 2003; Guthrie and Petty, 2000; Oliveras et al., 2008; Striukova et al., 2008).

TABLE 1 – INTELLECTUAL CAPITAL IN THE EXAMINED REPORTS

	2006	%	2012	%
Human Capital	261	24%	488	33%
Structural Capital	161	14%	168	12%
Relational Capital	716	62%	837	56%
Intellectual Capital	1150	100%	1493	100%

Taken a closer look at the importance of each subcategory (table 2), it can be observed that the top five subcategories are “Training policies” for human capital, just to show the importance in this particular sector of the professional and learning training, the updating of the employee; “corporate culture and identity” for structural capital, to indicate the importance of some values, as trust, credibility, etc.; “Customers”, “Business partnership” and “Corporate action” for relational capital, to highlight that the relationship with customers and stakeholders are crucial for an institution. Corporate action refers to all initiatives in which banks are involved in, especially in no-profit organisms, or to promote cultural and sport events. It can be observed also a low level of disclosure of intellectual property, innovation capabilities and management process. A possible explanation for this may reside in the fact that banks may be hesitant to pursue patenting over their financial institutions in Europe due to the legal uncertainty surrounding the patentability of business methods and computer programs.

TABLE 2 – DISCLOSURE PER SUBCATEGORY

Cat.	Subcategories	2006	%	2012	%
HC	Employee's profile	36	3,14%	32	2,14%
	Knowledge	21	1,83%	22	1,47%
	Skills	35	3,05%	39	2,61%
	Attitudes	19	1,66%	18	1,21%
	Talent management	92	8,00%	196	13,13%
	Training policies	70	6,10%	181	12,12%
SC	Intellectual property	6	0,52%	3	0,20%
	information system and infrastructure	30	2,61%	26	1,74%
	Management process	3	0,26%	0	0,00%
	Corporate culture/identity	115	10,02%	123	8,24%
RC	Innovation capabilities	7	0,61%	16	1,07%
	Brand	23	2,00%	37	2,48%
	Customers	128	11,15%	191	12,79%
	Distribution channel	83	7,23%	109	7,30%
	Business partnerships	125	10,89%	181	12,12%
IC	Corporate action	357	31,10%	319	21,37%
	Total	1148	100,00%	1493	100,00%

As regards disclosure per items, it could be observed, consistently with prior literature, that for human capital few and sometimes none information are reported for overtime, employee’s experience, tea work, language, problem solving, creativity or pro-activity of the employee; whereas the most information reported are gender distribution, internal communication, recruitment policies and training programs. As concerns structural capital, very few information are reported for licensees, copyright; whereas the major information disclosed are corporate value and

vision. Finally, as regards relational capital information relates to shareholder value are not present, whereas information relates on sponsorship, environmental protection measures, relation with suppliers, collaboration and multichannel bank.

TABLE 3 – DISCLOSURE PER INDICATORS/ITEMS, GIVEN IN ABSOLUTE TERMS

Subcategories	Item	2006	%	2012	%
Employee's profile	staff	3	0,26%	4	0,27%
	manager	5	0,44%	4	0,27%
	gender distribution	8	0,70%	8	0,54%
	country of origin of human resources	1	0,09%	2	0,14%
	average age of employee	5	0,44%	5	0,34%
	n. full-time employee	4	0,35%	4	0,27%
	n. contracts	5	0,44%	3	0,20%
	Protected categories	5	0,44%	2	0,14%
	overtime	0	0,00%	0	0,00%
	education	6	0,52%	6	0,41%
Knowledge	Placement subdivision	7	0,61%	5	0,34%
	experience	1	0,09%	2	0,14%
	expertise	2	0,17%	2	0,14%
	seniority	5	0,44%	5	0,34%
	awards	0	0,00%	2	0,14%
	Teamwork	0	0,00%	0	0,00%
	language	0	0,00%	0	0,00%
Skills	problem solving	1	0,09%	0	0,00%
	Internal communications	33	2,88%	26	1,76%
	Social communication	0	0,00%	13	0,88%
	creativity	1	0,09%	0	0,00%
	conscientiousness	3	0,26%	3	0,20%
	proactivity	0	0,00%	0	0,00%
	Personal initiative	0	0,00%	0	0,00%
	Customer centric	3	0,26%	1	0,07%
	commitment	5	0,44%	2	0,14%
	Attitudes	motivation	3	0,26%	3
managerial experience and abilities		3	0,26%	1	0,07%
entrepreneurial behaviour		0	0,00%	2	0,14%
Engagement index		0	0,00%	1	0,07%
% promoted staff/tot. staff		2	0,17%	5	0,34%

	Integration process	2	0,17%	0	0,00%
	n. injury	2	0,17%	4	0,27%
	n. lost days for injury	1	0,09%	4	0,27%
	n. disciplinary measure	3	0,26%	3	0,20%
	Regular opportunity	11	0,96%	12	0,81%
	promotional initiative for gender balance	0	0,00%	8	0,54%
	Support protected categories	0	0,00%	8	0,54%
	Health and wealth of employee	8	0,70%	10	0,68%
	quality life of employee	0	0,00%	0	0,00%
	Employee's satisfaction	0	0,00%	0	0,00%
	turnover	3	0,26%	5	0,34%
	diversity	8	0,70%	7	0,47%
Talent management	recruitment policy	18	1,57%	18	1,22%
	Remunerations and incentive policies	13	1,14%	14	0,95%
	Performance Management	0	0,00%	27	1,83%
	appreciation of human resource	0	0,00%	11	0,75%
	Career development	13	1,14%	7	0,47%
	Absent rate	7	0,61%	5	0,34%
	Leadership development initiative	0	0,00%	24	1,63%
	involvement initiative	0	0,00%	15	1,02%
	initiatives to support employees who return after long absence	0	0,00%	6	0,41%
	survey among employee	3	0,26%	8	0,54%
	training program	19	1,66%	61	4,14%
	professional program	6	0,52%	19	1,29%
	induction program	7	0,61%	2	0,14%
	relationship manager program	0	0,00%	10	0,68%
	Manager program	11	0,96%	16	1,09%
Training policies	investment in training	1	0,09%	9	0,61%
	h of training	4	0,35%	12	0,81%
	methods of training	6	0,52%	12	0,81%
	typology of topic	7	0,61%	20	1,36%
	n. participants	6	0,52%	14	0,95%
	master	2	0,17%	1	0,07%
	head training	1	0,09%	5	0,34%
	Human Capital	273	23,8%	488	33,1%

	patents	0	0,00%	0	0,00%
Intellectual property	trademark	6	0,52%	3	0,20%
	licenses	0	0,00%	0	0,00%
	copyright	0	0,00%	0	0,00%
	database	1	0,09%	0	0,00%
	systems, network, software	11	0,96%	2	0,14%
	remote/online banking system	1	0,09%	0	0,00%
	security measurement	0	0,00%	3	0,20%
information system and infrastructure	certifications	12	1,05%	3	0,20%
	tecnology	5	0,44%	2	0,14%
	Investment for regulatory compliance	0	0,00%	3	0,20%
	intranet	0	0,00%	2	0,14%
	communities of practies	0	0,00%	11	0,75%
	virtual worplace	0	0,00%	0	0,00%
	quality process improvement	3	0,26%	0	0,00%
Management process	operational risk management processes	0	0,00%	0	0,00%
	computerized processes	0	0,00%	0	0,00%
	identity	0	0,00%	9	0,61%
	vision	11	0,96%	21	1,42%
	mission	23	2,01%	7	0,47%
Corporate culture/identity	corporate value	49	4,28%	43	2,92%
	information and communication in the company	25	2,18%	20	1,36%
	awareness of employees	2	0,17%	4	0,27%
	research	0	0,00%	2	0,14%
Innovation capabilities	development and innovation	5	0,44%	4	0,27%
	product or service innovation	2	0,17%	10	0,68%
	Structural Capital	156	13,6%	149	10,1%
Brand	brand awareness	2	0,17%	0	0,00%
	trust	2	0,17%	1	0,07%
	transparency	1	0,09%	7	0,47%
	credibility	1	0,09%	1	0,07%
	awards received	3	0,26%	19	1,29%
	image	12	1,05%	3	0,20%
	caution	2	0,17%	6	0,41%
	customer relationship management	7	0,61%	22	1,49%
Customers	loyalty	3	0,26%	1	0,07%
	satisfaction	14	1,22%	15	1,02%

	retention tax	3	0,26%	0	0,00%
	ability to acquire new customers	0	0,00%	1	0,07%
	customized/personalized services	21	1,83%	47	3,19%
	segmentation of customers	11	0,96%	2	0,14%
	quality of service	11	0,96%	14	0,95%
	response time to credit	0	0,00%	2	0,14%
	client claim/complaint service	14	1,22%	7	0,47%
	n. claim/complaint	9	0,79%	15	1,02%
	customer assistance	16	1,40%	3	0,20%
	cross-selling index	4	0,35%	6	0,41%
	hearing tools for customers	5	0,44%	25	1,70%
	customer satisfaction index	4	0,35%	4	0,27%
	Greenwich quality index	0	0,00%	2	0,14%
	consumer protection	6	0,52%	25	1,70%
	multichannel bank	40	3,49%	65	4,41%
Distribution channel	promotional and marketing initiative	29	2,53%	7	0,47%
	territorial expansion policy/plan for branches	14	1,22%	9	0,61%
	accessibilità for person with disability	0	0,00%	28	1,90%
	collaboration	20	1,75%	58	3,93%
	cooperation	0	0,00%	0	0,00%
	outsourcing	3	0,26%	1	0,07%
	relation with media	11	0,96%	12	0,81%
	relation with universities or research institute	6	0,52%	25	1,70%
Business partnerships	relation with suppliers	43	3,76%	30	2,04%
	shareholder satisfaction	0	0,00%	0	0,00%
	relation with other banks	13	1,14%	11	0,75%
	Relation with regulatory body	12	1,05%	15	1,02%
	relation with Public Administration	17	1,48%	6	0,41%
	dialog with investors	0	0,00%	23	1,56%
	community involvement	33	2,88%	55	3,73%
	environmental protection measures	130	11,35%	147	9,97%
Corporate action	azioni filantropiche	44	3,84%	38	2,58%
	corporate sustainability actions and initiatives	29	2,53%	22	1,49%
	sponsorship	93	8,12%	52	3,53%
	guidance and training activities	28	2,45%	5	0,34%
	Relational capital	716	62,53%	837	56,7%
	Intellectual Capital	1145	100,0%	1474	100,0%

Conclusion and future research

Considering the peculiarities of the banking sector, its being knowledge-intensive and the changes that have affected this industry, the study analyzes the level of information on intellectual capital of the banks listed on the Milan Stock Exchange. The study shows that the relational capital, as shown in previous works, predominates followed by information on human capital and structural capital then. Either way, the information level is quite high. Analyzing the trend shows a substantial increase in information related to human and relational capital and the structural remains almost constant.

The results have implications for policy and management. At the level of policy, Basel II drives to provide more information, particularly on intellectual capital, but to date there are no specific references on how to provide such information and this can make it difficult to implement the prediction of a balance of intellectual capital, especially if it is not mandatory. Therefore it would be desirable to develop a framework for this report may be directed to the preparation of the document and its comparability over time and somehow assure the reader about the goodness of the information contained therein. From the management point of view to an enterprise knowledge-intensive management of intellectual capital is essential. Prepare a report like this can bring benefits in terms of transparency, trust and reputation. So how management uses time and effort to identify its key resources so should communicate outside.

The study certainly has limitations and the principal is to be attached to the use of content analysis, unaccurate the subjectivity of interpretation even though there is a list of predefined items, secondly, the sample size does not allow to generalize the results even if it is recognized that judgmental or purposive approach offer comparable results to the use of probabilistic methods with small samples, even if our goal is not to generalize the results to the case of an exploratory study. The study is exploratory in nature and its goal is to expand your knowledge with reference to a sector that is still largely unexplored.

Regarding the future of the research, it could be useful accompany the content analysis of questionnaires to firms in the sample. This is because, as already mentioned, the technique of content analysis suffers from subjectivity.

References

- [1] Abhayawansa, S., (2011). A methodology for investigating intellectual capital information in analyst reports. [electronic version] *Journal of Intellectual Capital*, 12, 3, 446-476.
- [2] Abhayawansa, S.A., (2014). A review of guidelines and frameworks on external reporting of intellectual capital. [electronic version] *Journal of Intellectual Capital*, 1, 100-141.
- [3] Abeysekera, I., & Guthrie, J. (2005). An empirical investigation of annual reporting trends of intellectual capital in Sri Lanka, [electronic version] *Critical Perspectives on Accounting*, 16, 2, 151-163.
- [4] April, K.A., Bosma, P., & Deglon, D.A., (2003). IC measurement and reporting: establishing a practice in SA mining, [electronic version] *Journal of Intellectual Capital*, 4, 2, 165-180.
- [5] Bontis, N., & Serenko, A. (2007). The moderating role of human capital management practices on employee capabilities, [electronic version] *Journal of Knowledge Management*, 11, 3, 31-34.
- [6] Bontis N. (2003). Intellectual capital disclosure in Canadian corporations, [electronic version] *Journal of Human Resource Costing & Accounting*, 7, 1/2, 9-20.
- [7] Bornemann, M., Knapp, A., Schneider U., & Sixl, K.I., (1999). Holistic measurement of intellectual capital, International Symposium: Measuring and Reporting Intellectual Capital: Experiences, Issues and Prospects, available at: www.oecd.org/dataoecd/16/20/1947871.pdf
- [8] Bozzolan S., Favotto F., & Ricceri F. (2003). Italian annual intellectual capital disclosure: an empirical analysis, [electronic version] *Journal of Intellectual Capital*, 4, 4, 543-558.
- [9] Bozzolan S., O'Regan P., Ricceri F. (2006). Intellectual capital disclosure (ICD): a comparison of Italy and the UK, [electronic version] *Journal of Human Resource Costing & Accounting*, 10(2), 92-113.
- [10] Branco M.C., Delgado C., Sá M., Sousa C., (2010). An analysis of intellectual capital disclosure by Portuguese companies, [electronic version] *EuroMed Journal of Business*, 5, 3, 258-278.
- [11] Brennan, N. (2001), Reporting intellectual capital in annual reports: evidence from Ireland, *Accounting, Auditing & [electronic version] Accountability Journal*, 14, 4, 423-36.
- [12] Cabrita, M. R. & Bontis N. (2008). 'Intellectual Capital and Business Performance in the Portuguese Banking Industry', [electronic version] *International Journal of Technology Management*, 43, 212-237.
- [13] Chen, M.C., Cheng, S.J., & Hwang, Y. (2005), An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance, [electronic version] *Journal of Intellectual Capital*, 6, 2, 59-76.
- [14] Cordazzo, M. (2007), Intangibles and Italian IPO prospectuses: a disclosure analysis, [electronic version] *Journal of Intellectual Capital*, 8, 2, 288-305.
- [15] de Pablos, P. (2003). Intellectual capital reporting in Spain: a comparative view, [electronic version] *Journal of Intellectual Capital*, 4, 1, 61-81.

Please contact author for the list of refere.

End Notes

¹ More specifically, the purpose of the third pillar is to "Encourage market discipline by Developing a set of disclosure requirements which allow market Participants To assess key pieces of information on the scope of application, capital, risk exposures, risk assessment procedures, and hence will the capital adequacy of the institutions "(Basel II, p. 226-228).

² Human capital constitutes: knowledge, Skills, Attitudes, talent management e training policies; capitale strutturale: Intellectual property, information systems and infrastructure, management process, corporate culture, innovation capabilities; capitale relazionale: Bran, customers, distribution channel, business partnerships, corporate actions

³ Another common method of analysis in the study of intellectual capital is the VAICTM analysis. The methodology VAIC is instead used to measure the intensity with which a company produces value-added based on the efficiency of intellectual capital (P. Stale, Stale S., S. Aho) and its goal is to measure efficiency in 'use of intellectual capital (Pulic, 2000). The VAIC leads to determine a summary of the efficiency of the enterprise and efficiency of intellectual capital.

**Managing Intellectual Property in High-tech Services:
A case study of an engineering company**

*Qing Cao, qincao@utu.fi
Turku School of Economics, University of Turku, Finland*

Managing Intellectual Property in High-tech Services: A case study of an engineering company

Abstract

Managing intellectual property (IP) in the customer- supplier relationships is a challenge for a high-tech service. The paper intends to find out how to handle the critical issues in the collaborations, such as how to protect of both the customer's IP and company's IP, how to manage IP fruits coming from the collaborations and how to serve the customer better. As IP protection is still problematical in China, the paper also studied the Chinese subsidiary of the case company. The longitudinal study investigated a Finnish engineering company. During 2011-2013, three face-to-face interviews were conducted in headquarters and one in the China Office. The empirical results indicate that knowledge management as an indispensable component of the IP management should be embedded into the daily business. Besides, the company's IP strategy in China highlights the importance of IP risk identification and the impact of the headquarters' good IP practices on the subsidiary.

1. Introduction

Intellectual property (IP) mainly including copyright and rights related to copyright, trademarks, patents, industrial designs and trade secrets as an intangible subject matter is part of intellectual capital [9]. IP is seen to be crucial to a company's core business activity, because IP provides the company a unique competitive advantage in the market place [4], [11], new solutions for money generation [11], and new strategies of maintaining its core competences [2].

With the rapidest economic growth, China has overtaken Japan to become the second largest economy in the world since 2011. China has been one of the most attractive markets among the emerging countries. However, the prevailing problem of IP misuse cause by the weak IP enforcement has frustrated foreign investors. China is now continuing on its path of institutional transition and development which requires a series reforms including strengthening IP protection [3], so there is a long way for China to establish healthy intellectual property right (IPR) regimes from the current fledging stage [10]. Thus, the law enforcement is the biggest challenge which foreign companies must face [5].

In business studies it seems that the theoretical foundation of IP management is rather weak. A lot of studies on the legal field proposed establishing a harmonized international IP realm. IP area has been long time mainly law focused. Literature has mostly discussed about the term "IP" from social, political and legislative perspectives. Until recently, literature has started dealing with IP from business perspective, but only with the limited number. The latest studies stress on proactive corporate IP measures which suggested that ahead of any problem, the foreign companies should develop their own corporate IP measures rather than overly count on legal protection measures. Studies on IP management in China, particularly from the foreign company's point of view, are even fewer. These studies generally discuss about IP protection strategies for international companies to respond IP abuses, no matter what kind of operation model the companies have and in which industries the companies are. In reality, IP management can vary in different operation model and industrial sectors. For example, the emphasis of IP management in high-tech service sector with business-to-business selling will differ a lot from that in manufacturing with business-to-customer selling.

This study exposes how IP management is done in a Finnish engineering company both in headquarters and in the subsidiary of China. The focus of the study is on the critical issues in the collaborations, such as how to secure the customer's IP and protect company's know-how as well, how to manage IP fruits coming from the collaborations and how to serve the customer better. This study gives the following contributions. First, contrary to the existing studies that have examined the IP strategy as a separate strategy from the company's business plan, this study regards IP strategy as a part of business strategy. Second, the research combines knowledge management with IP management. The study covers how to manage essential knowledge, critical know-how and core competence in the IP management, because without them the companies may not have the capability to create any IP, though the existing studies have put knowledge management and IP management into two research realms. Third, the study takes contingency factors such as industry-specific, company specific and system-specific into considerations in the analysis. Fourth, the

viewpoint of the study is analytic by looking at the relation between the IP management in headquarters and in China.

The next section is research methodology. Thereafter, the case company is presented under the two sub-sections 1) IP management in headquarters and 2) IP management in China, followed by the discussion section. The final section provides the theoretical and managerial contributions.

2. Research Methodology

In the study, qualitative research approach is chosen for the data collection. The advantage of the qualitative interview approach is that researchers can view the research topic directly and also obtain unexpected insights of inferences and explanations through interviews [12]. In the case study, the in-depth, semi-structured, face-to-face interviews were conducted to a company in the consulting and engineering sector. Headquarters of the company is located in Turku and its China subsidiary is in Shanghai. Senior Vice President and Senior Vice President in Marine Business Unit who is also in charge of IP management in headquarters as well as General Manager at Shanghai office were interviewed. The interview questions cover these ten issues: 1) background information of the company (e.g. history, business strategy etc.); 2) operation in China; 3) decision-making process to establish China Office; 4) human resource management and trainings; 5) the procedure of daily IP management; 6) the knowledge management; 7) phases of the collaboration; 8) motivations behind the collaboration; 9) IP problems encountered; 10) and the ways for improving IP management.

The interview with the General Manager at Shanghai Office took place before the one interview with both Senior Vice President and Senior Vice President in Marine Business Unit. The reason for that was it took time to evaluate the case after the first interview whether it was the right case for the topic and getting the acceptance for the second interview was not easy. In the case evaluation process, the rough data analysis was done. The analysis was based on these issues, such as 1) does the company know about IP; 2) does it have coherent IP management system; and 3) does it concern about protecting their business partners' IP. The strategy for the second interview was to focus on not only IP management in general, but also the central points as well as the questions which the General Manager at Shanghai Office was not able to answer. After about one and half years later, E built up the process system of handling the patents and IP matters. Hence, the third interview with Senior Vice President in Marine Business was conducted to keep update the rapid changes products taking place in the company since 2012 spring. During the semi-structured form of interviews, the field notes were made in order to follow up the discussion by asking the additional questions. Also, the researcher summarized what the interviewees told and asked the questions to make sure that there was no misunderstanding between the researcher and the interviewee. Interview data were recorded by the digital recording under the permission. The interview agenda was sent three week in advance, so that the interviewees would have time to prepare for the interviews. The duration of the interviews was about 1 hour. Besides, some documents like E's homepage, brochures of E's business perspective, PowerPoint presentation of E Shanghai Office and Information Security at Shanghai Office were studied to supplement the interview data. The interview transcriptions were coded into concepts and themes cf. [1]. Further inquiries were sent by email for clarifying certain specific issues after interview transcriptions were studied.

3. Case Company Profile

E is a leading Finnish consulting and engineering company in Scandinavia, specializing in marine, mechanical, process, R&D tools and software. The headquarters of E and its son company C are situated in Turku Finland. E started as a family company founded in 1970. In the 1980's after the 3D computer aided plant design system, software D was developed, competitiveness of E as a major player in the international market increased. D is the brand of the software and it has been registered as an international trademark. Software D licenses in 50 countries worldwide. E China located in Shanghai was established in 2008. It is the second subsidiary in the Asian market. The main service of E China concentrates on mechanical engineering.

3.1 IP management in headquarters

E highly concerns about IP management. It provides the services solutions for the customers based on the guidelines provided by their customers. If there is any invention or IP generated in the project, the ownership belongs to the customers. Handling transferring IP related matters to the customers is complex process. It involves the company's obligations of the

reasonable compensation toward the employees according to the Finnish law and the obligations to comply with the customer's guideline. Usually, it is difficult to decide how much should be the reasonable compensation. In principle, the compensation follows the 3-step guideline in the phases of IP related matters transfer, registration and further appropriation in 5 or 10 years. However, the customers have the different compensation guidelines as E has. In this case, E needs to on one hand keep track of the IP-related matter already transferred to the customer and on the other hand ensure that the company will get enough compensation from the customers if the customers later patent the IP-related matter and make money out of it. In order to avoid the conflict, every clause of the contract must be well-specified. When drafting the contract, E spends lots of time in discussing about the contract with the customers to make sure that all potential consequences are taken full consideration in advance. Securing the customers' IP and know-how is also defined in contract. The company has strictly followed the customer's policies, e.g. what should be kept in Finland. Above that, explicit rules in the daily routines have been set. For example, everybody who works with the customers should sign non-disclosure agreement. Also, everything in connection with the computer systems has been protected properly. At the same time, E enhances the importance of IP by developing the rights to meet the customer needs:

"To enhance the importance of IP means not only to generate the patent, but also to be able to find the solutions to the customers. That means before they order the vessel from the ship yard and when they think what kind of ship they need. Then we can help them. And also after delivering the vessel, we help them to develop the product in order to run the ship. "(Senior Vice President in Marine Business Unit

The motivation behind the collaborations in general is to acquire the external resource (e.g. expertise and human resource), so that the company has the enough capacity to compete for the big business. In the collaboration, many companies transfer the responsibility of checking that in the project other companies' patents are not violated. That is to say E must make sure that there is not a patent anywhere in the world related to the work it makes. Aside from it, most of those customers from the big companies, normally, request the ownership of improved or new created IP in their projects. In this case, E has to negotiate, define and balance it clearly in agreement the proportion of the co-ownership of the invention.

The IP proposal usually first goes through the decision making by the steering committee in headquarters to evaluate whether the IP has the market potential to file the application. In customer project-related invention, E also need to inquiry the customers about their interests in IP. The customers have the priority to own the IP. In 4 months, the steering committee must get back to the inventor. After the proposal is confirmed, some agent is hired for filing the IP. The agent is in charge of IP searching or checking based on the requirement of the law. Senior Vice President in Marine Business Unit commented:

"We more think about how important the patent can be from our business point of view. And the agent will be more looking at is it possible to patent. Because if somebody else has patent something if it's very close to it then... Well it's important for us to know that. We need to be careful with that not to use other ones' patents."

So far E has not had any conflict or argument with the customers. It has done well in improving the level of knowledge of IPR matters most related to E's own products and also related to the customers' products. During the recently one and a half years, E has established specialty groups comprised of people with specialties from different special areas in Helsinki and Tampere office. In this way E can develop the know-how and the knowledge between the people and thus is able to provide higher-level know-how for helping the customers improve their products. Still this is an on-gong process. The part of E's strategy in the future is to build up a more and more knowledge-based consultancy. Although as a new thing in the company, the process has not yet been structured, from now on E will continuously improve the IP system of the company:

"We need still to build in the process of making all kinds of IP and go through them. That means we are developing more and more products. We are in the process to get everyone in the organization to know what it's about. It's quite important to know what kind of contracts we make with our customers. Now we have increased the importance of IPR in our strategic planning and started to support our personnel to be active in the area of patents." (Senior Vice President in Marine Business Unit)

3.2 IP management in China

The main reason driving E to establish the subsidiary in China is to be close to the big Finnish customers that have operations in China. E's business strategy in China is to help and assist those Finnish companies already in China in high-class, high-technical engineering design consulting. The Finnish customers are the majority that E serves. But in

a long run, the business will also focus on Chinese companies. In the decision making process, the management team took care of the risk analysis:

"I guess it's important for everyone to know the risks involved. That the first step to know what is the risk. Then the next is to judge well and to compare with the risks and then you can sketch if you still need to do something or not." (Senior Vice President in Marine Business Unit)

"That's exactly. To be ready with the risks and take the worst case scenario and then look what happens." (Vice President)

The proposal was confirmed by the President and then it was approved by the supervisory board after the discussion from the management board. Quality analysis was done on finance and detailed business plan was made. That time E had no Chinese partners. Basically, E has not been involved in technology transfer to China. Information related product knowledge is remained in Finland and only generic engineering designs are used in China, because the customers are very concern about IPR problems in China:

"Some of our customers are very concerned about Chinese coping and IPR in that country. This type of information or design will never leave Finland." (Senior Vice President)

The new Shanghai Office is located in Caohejing Development Zone. Due to the increasing of the workload, nowadays Shanghai Office is under the direct control of the Tampere Office which is in charge of the knowledge and know-how development in Finland, so that E can transfer the know-how to help the Finnish customers in China. In the end of 2011, E China moved from the previous location which is distant to the center. The basic reason for moving was that the previous location was difficult to get people or companies to work with. In the new area, the company is more attractive, because it is closer to the universities. The new office has altogether 13 workers led by the Finnish expatriate. The office established the information security control system to protect the crucial knowledge. The system can be divided into these categories: human resources management, premises, infrastructure and way of working and computing restriction. E recruits through websites and networks. In the recruiting process, E keeps track of the engineers' competences of what they have done in the past. E prefers the employee who has long working histories in one company and tries to avoid recruiting the "job hoppers". The whole-hearted orientation for the new staff and continuous training including the security issues are provided:

"... Of course we give the training to our staff, training about the security issues. Always remind things of confidential agreements with the people, so everyone understands what the meaning is and what the purpose of these things is..." (General Manager at Shanghai Office)

The security issues are also included in the Employee Handbook. For example, "In case the Company suffers economic losses because the employee discloses trade secret(s), the employee shall take the obligation of compensation." (Power Point Presentation of Information Security System) In the employee's contract the company requires the employee to execute the duty of competition restrictions. The employee who involves in any customers' project, non-disclosure agreement should be signed. The employee should also know the entire non-disclosure contracts signed with the customers. The employee's expertise is an intangible asset to the company. In order to keep the key personnel, the same motivation system is used for Chinese employees as for Finnish ones:

"Well, we need to have competitive compensation package of course, salary bonus scheme, training and the good working environment that people would feel this is the place to work I mean. As we know in China obviously in big company area like Shanghai the salary has increased a lot. We have to follow the salary standard there." (Senior Vice President)

Information security in premises, infrastructure and way of working limits and controls the access to the premises and to all databases. Senior Vice President added: "When moving to the new office we have established different areas of the office, so we can protect, we can have an isolated area. There's no mobile phone. There's no memory card or anything or no internet connection. We can also have this type of confidential at the office." Waste paper must always put to the shredder. Paper copies of documents are minimized. The IT policy restricts the use of the network and mobile computing devices (e.g. laptops, handhelds, etc.). IT department manager and general manager are responsible in the user rights approval process. In addition, for special cases, such as secret R&D projects, E tightens restrictions to limit the access to workstations and internet. (Power Point Presentation of Information Security System)

E also has collaborations with Chinese companies and universities though only small amount of business.

Subcontracts were done both with the Finnish and Chinese companies. One Chinese company has been the subcontractor for E China for more than two years. E China found this partner through a series of steps: Googling, company visits, background information checking, evaluation procedure and selection. "We evaluated these suppliers. We checked these background and we get us as much as possible information about this. We have their business license, what kind of the statements, these kind of public statements... There were several different kinds of documents we wanted to get and we wanted to check everything, for example, if they paid the tax. And first task are small. Step by step we give big tasks to them." told by the General Manager at Shanghai Office. So far, E have undertaken a few projects in China. And "guanxi" (personal relation) will be built only when E China is big and strong enough.

In China, the registered trademark of D is the only IP. The agent in Finland handled things in the registration process. In the licensing, the trademark is protected by the unique technology attached to the software. Although E has not had any problems with IPR issues in China during these four-year time, E will take the legal procedure whenever any violation occurs.

4. Discussion

Engineering consulting belongs to the knowledge-intensive industry which requires the company to protect the customer's IP and the company's know-how. E has gone smoothly to tighten the knowledge and IP managements in the overall management system; otherwise the company will be in trouble. In headquarters, IP and know-how is controlled by the contracts and policies. In addition, the company has been constantly building up a better IP system to enhance the service level, for example forming the specialty groups.

The managers of the company understand the IP risks and engineering market in China. The targeted customers have been mainly the Finnish companies that the company already had business with them in Finland. This business strategy in China is quite special, because normally the foreign companies establishing the physical presence in China is from the considerations of cost-saving or huge market potential. But the strategy has well matched E's risk management capability in China since E was not familiar with the Chinese market before entering China. Also, the strategy matches the situation of the Chinese market. According to the General Manager at Shanghai Office, the outsourcing engineering market has not matured yet in China. Chinese companies want to keep the engineering design in their own offices. They don't want to use the subcontract. The business strategy of E seems to be cautious also in the whole decision making process. The business plan presented the perspective of operation in China. The financial analysis showed the profitability of plan. Thus, the business strategy can alleviate the most IPR risks.

Second, The system in headquarters was transferred to China, but more strict rules were embedded. Information security system has been integrated in the HRM to protect the essential know-how of customers' and the company's property, because the critical know-how covers a broad range in the engineering companies compared with other knowledge intensive industries. The uncommitted employees can be the source of IP risks for the company. In the recruiting, avoiding "job hoppers" can to some extent reduce the leakage of the crucial knowledge. On the other hand, motivation system can keep the talents in house, but also influence the job hopping behave as well. The continuous training can keep the employees aware of the information security issues. According to [7] education and training program should aim specially at educating employees about what information is sensitive and proprietary. When asked what has been done well in IP management, the General Manager of Shanghai Office mentioned this point: *"We have new worker here and this internal training we have constantly done so that everyone understand about these security issues."* But normally, employees too often only get trained in IP protection during the orientation days when they become new comers of the company [8]. The Employee Handbook of E and the contractual mechanism have defined explicitly the obligations of employees to diminish the possible risks. For example, information sharing with the cooperators (act as both partner and competitor) is restricted to the project. In China sometimes employees may unknowingly leak the sensitive information (e.g. trade secrets) to business partners, because they are not clear about what belongs to sensitive information and what does not [2]. Physical access control enables all the employees have access only to the information relevant to their work [8]. The proper information securing system in place has prompted the staff to aware the value of the knowledge in the model designing. In this way, E is able to maintain its competitive advantages in the market, as the General Manager said: "At the moment the product engineering that E

are doing is not in the market yet. So our clients and competitors have not seen these 3D models. They won't see beforehand and afterward."

Third, the comprehensive due diligence was conducted to assess the reliability of the potential partner. By company visits, E could know whether the company existed or not. In China, there are illegal companies called "Pi Bao Gong Si". These are companies with no funding, no operating site, no business operation and no regular workers, but with a company's stamp and few contracts they engage in fictitious transaction to deceive money. They change their contact information often, so that they will not be easily caught. In the virtual world, they also use internet as a modern tool to hunt the quarry. Also some companies not doing business well will exaggerate their business scope with a fancy internet page to attract the customers or business partners. It is well advised for foreign companies to obtain as much information as possible from different sources: 1) reviewing documentation; 2) asking questions; and 3) visiting candidates [6]. According to law, every legal entity must have authorized the business license and business registration certificate by local government. These documents will uncover the Chinese company's legal capacity such as registered capital, business scope and legal representative. The company can ask for financial information and the original certificates from the candidates. E managed successfully in the due diligence process. Moreover, building business relation with the Chinese partner from the small tasks to the bigger ones is wise. The small tasks that E offered in the beginning are like the threshold. Through these small tasks whether the Chinese partner is reliable and capable for the task can be revealed. Until the trust was built, the bigger tasks were given.

However, E China has not been active in building "guanxi" (personal relation) with Chinese companies and Chinese governments. That may become a problem later if it wants to start targeting local Chinese companies in the future. Building "guanxi" is indispensable for E to survive in the Chinese market, as guanxi has a predominant position in Chinese culture, the high impact of guanxi in the business world has been over time, even today in China's new and fast-moving business environment. Thus, when guanxi network is built, E is for sure to obtain more business opportunities in China, but not the other way around. It is likely that most foreign managers coming from the western countries may have difficulties in getting used to this concept in the beginning.

Last, IP problems cannot be revealed perhaps because the length of the time that company has been presented in China is not long. According to Senior Vice President in Marine Business Unit, the explanation was: *"Maybe we haven't made big project yet, so we haven't in the problem... It takes long time to get new market. If we think about three-or-four-year time, it's quite short time. Maybe we have not yet met the problems."*

5. Conclusions

5.1 Theoretical Implications

The case company has placed the IP strategy into its business strategy. The prudent business strategy, which fits well the company's situation and the Chinese market, indicates that risk management in the decision-making process can pave the way of IP management in China. This study points out that IP risks should be seriously taken into account in the risk management. But unfortunately, as IPRs are often associated with the legal matters, the importance of IP risk analysis has been ignored in the risk management of business studies. Moreover, the empirical study shows that knowledge management is an indispensable component of the IP management in the high-tech services. Nevertheless, the prior business studies have clearly divided knowledge management and IP management into two different topics. Therefore, complementary to the existing studies, IP risk management and knowledge management can also be regarded as proactive corporate IP measures. Last, the study indicates the contingency factors in IP management. The case suggests that knowledge management has an essential role in the high-tech services where the core competence relies a lot on the tacit knowledge from the talents. Therefore the prior studies on overall proactive corporate IP measures do not well applicable to the case of engineering services.

5.2 Managerial Implications

There are different kinds of risks involved in the different industries. Compared with the manufacture-based industry, knowledge asset is much more important to the high-tech services. Basically, companies in this sector should pay more attention to knowledge management and embedded it to the daily business routine to secure IPRs. Knowledge

management reflects not only in the all aspects of HRM, such as recruitment, training and retention, but also in the physical access control. In addition, the managers realize the importance of the talents. The motivation system that retains these talents in the company actually has reinforced the information security. Besides, the headquarters' good IP practices will have a positive impact on the subsidiary.

Regarding the market entry to China, foreign managers should fairly identify the risks in China to make the business strategy which is appropriate to the company's competence and the Chinese market. The analysis can help the company to prepare for the predicable IP risks with the reasonable business strategy before taking any practical actions. When collaboration with the Chinese partner, a thorough due diligence should be conducted beforehand

5.3 Limitation and further research

At the moment, trademark D is the only IP in E China Office. The main tasks of IP management in China are to protect the customers' IP/ property and the essential know-how of E. Besides, E China has not yet got into the Chinese market. Thus, at the current stage, the case study is not able to show how E will react to further risk exposure when E has other IPRs and frequent encounters with the Chinese companies. In the further research, as the establishing IP system of E is in the process and it will take very long time to make the system completely ready, five-year longitudinal study should be used to observe the changes in the organization. Further, more researches should be done in the future to discover the IP problems in the company. Having no problem in IP issue could be the truth, probably. But on the other hand, it could mean that either some problems are not recognized or the company did not want to disclose the problems to an outsider. In addition, comparison study can be made in other high-tech service companies, e.g., IT services which involves more advanced knowledge.

References

- [1] Ghauri, P., & Gronhaug, K. (2002). *Research methods in business studies: a practical guide*. 2nd edition, Harlow: Financial Times Prentice Hall.
- [2] Gollin, M. A. (2008) *Driving innovation: intellectual property strategies for a dynamic world*. Cambridge University Press: Cambridge.
- [3] Hitt, M. A. (2006). Spotlight on strategic management, *Business Horizons*, 49 (5), 349–352.
- [4] Hunter, L. (2006). A management perspective. In: *The management of intellectual property*. ed. by Bosworth, Derek – Webster, Elizabeth. 66-84. Edward Elgar: Cheltenham.
- [5] Kumar, S., & Ellingson, J. (2007). Adaptive IP strategies in China: a tactical analysis. *Journal of Intellectual Capital*, 8 (1), 139-158.
- [6] Luo, Y.(1998). Joint venture success in China: How should we select a good partner? *Journal of World Business*, 33(.2), 145-166.
- [7] Norman, P. (2001). Are your secrets safe? Knowledge protection in strategic alliances. *Business Horizons*, . 44 (6), 51-60.
- [8] Reid, D. MH., & MacKinnon, S. J. (2008, March.). Protecting your intellectual property in China. *MIT Sloan Management Review*, [Electronic version].
- [9] Skyrme, D. J. (2002). Developing a knowledge strategy: from management to leadership. In: *Knowledge management: classic and contemporary works*. ed. by Morey, Daryl., Maybury, Mark T & Thuraisingham, Bhavani M. 61-84. MIT: MA.
- [10] Stevenson-Yang, Anne – DeWoskin, Ken (2005) China destroys the IP paradigm. *Far Eastern Economic Review*, Vol. 168, No.3, 9-18.
- [11] Verloop, J. (2004) *Insight in innovation: managing innovation by understand the laws of innovation*. 1st edition, Elsevier: Amsterdam.
- [12] Yin, R. K. (2008). *Case study research design and methods*. 4th edition, Sage: USA.

**MEASURING INTANGIBLES THROUGH THE BALANCED SCORECARD:
THE CASE OF AN ITALIAN COMPANY**

*Marco Gatti, m.gatti@univpm.it
Università Politecnica delle Marche, Italy*

MEASURING INTANGIBLES THROUGH THE BALANCED SCORECARD: THE CASE OF AN ITALIAN COMPANY

Abstract

In recent years, performance measurement systems (PMS) have received growing attention. Among these, the Balanced Scorecard (BSC), in particular, has been the object of a plethora of contributions. Its use, in fact, permits a multidimensional measurement of company performance, thanks to the contextual use of financial and non-financial indicators. Moreover, scholars have also underlined that the BSC allows companies to measure some of the intangible assets needed to improve organisational performance. The customer perspective as well as the learning and growth perspective, in particular, are tightly focused on some of the most important intangible assets that can deeply influence company results, namely the relationships with customers and the human and organisational capital that company strategy should be based on. Despite these distinctive features, the measurement of these relevant intangible assets is sometimes problematic and it can also limit the potentialities of BSC implementation. The aim of this paper is to explore some of the problems that can arise when a BSC is implemented, with particular regard to the information and measures focused on intangible assets, as well as the consequences thereof. In order to achieve this aim, a case study of an Italian company that has recently implemented a BSC is carried out. It sheds light on the role that the existing information system and the information it delivers can play with regard to the provision or the revision of measures pertaining to both the customer and the learning and growth perspectives, namely those perspectives in which intangible assets are more relevant. In doing so, the paper contributes to the literature on factors that can facilitate or hinder the measurement of intangibles within an organisation, as well as to the literature focused on the limits of BSC design and implementation.

1. Introduction

In recent years, the balanced scorecard (BSC) has received growing attention among scholars and practitioners (Kaplan and Norton, 1992; 1996; 2004; 2006). Its diffusion, from a theoretical and a practical standpoint, can be largely traced back to the fact that it allows a multidimensional measurement of company performance and, in so doing, the BSC overcomes some of the main limitations of traditional management control systems (Johnson and Kaplan, 1987; Lynch and Cross, 1991). In fact, thanks to its use, managers can control strategy implementation through the use of both financial and non-financial measures. Moreover, the fact that measures are linked through causal relationships allows managers to have a clear representation of the business they run and of the effects that their decisions can have on the company's performance (Kaplan and Norton, 2000). In light of this, BSC has been widely celebrated and its implementation has been studied in different contexts (Hoque, 2013). Scholars have paid particular attention to the design stage as well as to the effects that can result from its implementation. A plethora of studies have focused attention on the effects of BSC implementation on company financial performance, on organisational learning, on leadership and on many other aspects of organisations (Assiri et al., 2006; Agostino and Arnaboldi, 2012; Franco-Santos et al., 2012). Despite this, only a limited number of studies have paid attention to the role that the BSC can play with regard to the measurement of intellectual capital (IC) (Mouritsen et al., 2005; Wu, 2005; Bose and Thomas, 2007). In fact, Kaplan and Norton often refer in their works to the BSC as a useful tool for describing how intangible assets can contribute to the improvement of financial performance (Kaplan and Norton, 2000). Moreover, they underline the fact that by measuring intangible assets through the BSC, it is possible to verify and to monitor their impact on a company's financial performance and, as a consequence, it is possible to manage those assets in order to improve performance. Nevertheless, only a limited number of contributions have analysed the role that the BSC can play with regard to IC measurement and the problems that can arise when a company decides to implement such a system (Petty and Guthrie, 2000; Chen et al., 2004). Such problems are related to the company's need to provide a reliable measurement of the intangible assets that are normally considered within some of the perspectives in which a BSC is set up.

The aim of this paper is to contribute to filling this gap. In order to achieve this, a case study of an Italian company that has recently implemented a BSC will be presented. In particular, the case study will be used to show some of the problems that arose when the BSC was implemented because they predominantly concerned the definition

and the measurement of the key performance indicators within the customer and the learning and growth perspectives, i.e., those which are basically focused on intangible assets. More specifically, the role played by the existing information system and the information it provided will be analysed in order to show if and how it affected the measurement of some of the key performance indicators that were considered within the company's BSC.

The remainder of this paper is organised as follows. The next paragraph provides a brief literature review on the BSC and on the use of the BSC as a tool for measuring intangible assets. The third paragraph describes the research method used to carry out the case study as well as the theoretical approach adopted to interpret its findings. The fourth paragraph illustrates the company profile and the fifth and the sixth show both the design stage and the implementation stage, paying particular attention to the problems that arose when the BSC was implemented. Finally, some concluding remarks are presented together with the main limitations of the research.

2. Literature review

In recent years, the literature on the BSC has flourished (Franco-Santos et al., 2012; Hoque, 2013). From its introduction, BSC has attracted the attention of both academics and practitioners since it represents a useful multidimensional management control tool which is based on company strategy (Kaplan and Norton, 1996; Lawrie and Cobbold, 2004). Thanks to its use, in fact, managers obtain a set of measures which are focused on the key success factors the company strategy should be based on (Tayler, 2010). As a consequence, they can constantly control strategy implementation, its results and any changes in the external and the internal environment that could lead to a revision of the deliberate strategy. More specifically, the BSC allows a multidimensional measurement of the company's performance which can be seen from four different perspectives: the internal process perspective, the financial perspective, the customer perspective and the learning and growth perspective (Kaplan and Norton, 1992). Every perspective is monitored through the use of financial and non-financial indicators which permit a constant control over the results that the strategy implementation produces (Merchant, 1985; Lynch and Cross, 1991; Kaplan and Norton, 1992; 1996). Moreover, the fact that measures and targets are linked through cause and effect relationships allows the BSC to represent the company's strategy and to support managers in revising it, if necessary.

In light of what has been said, literature contributions have underlined the effectiveness of the BSC as a strategic management tool, namely a tool which allows managers to represent and to manage company strategy (Ahn, 2001; Malina and Selto, 2001; Malmi, 2001; Chenhall, 2005; Tayler, 2010). Moreover they have also highlighted the consequences that can arise when a BSC is implemented. In particular, they have focused attention on the impact seen on people's behaviours and learning (in terms of strategic focus, coordination and motivation) (Sandstrom and Toivanen, 2002; Papalexandris et al., 2004; Jazayeri and Scapens, 2008) as well as on company performance which has been analysed both in financial and non-financial terms (Speckbacher et al., 2003; Braam and Nijssen, 2004; Davis and Albright, 2004). Empirical and theoretical studies have also brought out the main criticisms that are linked to the design and, in particular, to the use of a BSC. From a theoretical perspective, it has been argued that, in many cases, it could be difficult to connect measures and to identify causal relationships among the four perspectives (Nørreklit, 2000). In addition to this, it has been claimed that the existence of a time-lag between the cause and the effect can lead to an incorrect representation and measurement of the effects of strategic decisions (Nørreklit, 2000, 2003). Moreover, scholars have also stressed the fact that one of the main criticisms concerns the need to balance the four perspectives, given that companies could be more oriented towards identifying and using measures for some perspectives (like the financial ones) rather than other perspectives in which it could be more difficult to select measures, especially because they have a non-financial nature. This is largely due to companies' inexperience with measuring their performance through the use of these kinds of indicators and consequently, to the fact that the existing company information system is sometimes unable to support the BSC implementation through the provision of an information flow.

Thus, it is clear that the BSC has attracted the attention of a large number of scholars who have focused on its different features as well as on the different contexts in which it has been implemented. Despite this great interest, only a limited number of studies have focused on the contribution that the BSC can give to the measurement of intangible assets. Two of the four perspectives the BSC is based on (customer and learning and growth), in fact, are clearly focused on some of the most relevant intangibles the companies need to manage, namely relational capital and

human capital. In light of this, a BSC could support the measurement of these intangible assets and it could also contribute to the visualisation and the measurement of their contribution to the achievement of financial results. Nevertheless, studies that have already analysed the relationship between the BSC and intellectual capital or, more precisely, the contribution that the former can give to the measurement of the latter are still scanty. In their paper, Mouritsen et al. (2005) compare the BSC and IC as performance management systems. Although they show that the BSC and IC are linked with regard to the contextual use of financial and non-financial performance, their contribution demonstrates that they clearly differ in terms of underpinning strategy which can deeply affect the way indicators are selected and interpreted. More specifically, within the BSC, indicators are put in a sequential structure of cause and effect because strategy is intended as a competitive strategy advantage, namely as a means to achieve a competitive advantage. As a consequence, indicators on intangibles need to be coherent and they have to show the contribution that intangibles can give to the financial performance. IC measurement, instead, is focused on the idea of a competency strategy. Consequently, indicators form a network around capabilities and they are not analysed in terms of cause and effects. Petty and Guthrie (2000) adopt a similar approach and they compare the BSC with some of the most relevant systems which have been studied to measure intellectual capital (like the Skandia value scheme, the intangible assets monitor and the intellectual capital account). In their article, they underline the fact that the systems share the commonality of the use of financial and non-financial indicators, although the BSC is more oriented towards the measurement of customer capital, whereas other systems are more focused on human capital. In a similar vein, Chen et al. (2004) have pointed out that the BSC is not particularly focused on human capital and so, it overlooks the relevance of knowledge management as a critical success factor for the company. In some cases, the relevance of the BSC in measuring intellectual capital has been deeply debated (Marr and Adams, 2004). What has been argued, in particular, is that the BSC is based on a distinction between information capital and organisational capital, while many scholars have classified information capital as part of the broader category of organisational capital. Secondly, the BSC is focused only on one kind of relationship, the one with customers. It completely overlooks the relationships with other stakeholders which can be relevant when measuring the relational capital of a company.

Wu (2005), instead, adopts a different approach. In her article, in fact, she suggests an integration between then BSC and IC, rather than focusing on differences between them in measurement. Through a case study, carried out in a company in Taiwan, she shows that a BSC can direct the creation, formation and measurement of IC and it can also contribute to strengthening the reporting for IC. Bose and Thomas (2007) also underline that while the BSC can be a valid tool for measuring and managing intellectual capital, it needs to be continuously nurtured and amended to reflect environmental changes. Similarly, other scholars have suggested the use of a BSC approach to measure intellectual capital or knowledge management (Fairchild, 2002).

What results from this brief literature review is that scholars have already debated the possibility of adopting the BSC to measure intellectual capital. In their works, they have shed light on the main advantages of the BSC and they have also raised important criticisms regarding the adoption of the BSC. What, up to now, has been substantially neglected are the problems that can arise when a BSC is implemented, in terms of measures that need to be selected to monitor those perspectives in which intangibles are more greatly represented, namely the customer and the learning and growth ones. Problems linked to the use of non-financial measures, in particular, have been already analysed in the literature on both management accounting systems and intellectual capital (Vaivio, 2004; Catasús and Gröjer, 2006). Despite this, contributions have not focused on the causes of these effects. This is even more important with regard to a BSC in which financial and non-financial indicators are deeply integrated and need to be calculated in order to ensure the proper functioning of the tool. The aim of this paper is to contribute to filling this gap by analysing the case study of an Italian company that has recently implemented a BSC.

3. Research method

The analysis is carried out through an interventionist case study (Lukka, 2000; Jönsson and Lukka, 2007; Suomala, 2010). The author, together with a team, was recently involved in a project concerning the design and the implementation of a BSC in an Italian company. Starting from October 2012, the team worked with the members of the company's top management to design the BSC. A series of meetings were held in which all the managers took part

and afterwards, the team met frequently with the controller and the IS manager to calculate the indicators and to put the BSC into use. Given the active role played by the author in the design and the implementation stages of the BSC, the case study will be analysed by adopting an interventionist approach. The author, in fact, was deeply involved in every stage of the BSC design and implementation, working within the company as a consultant. Thanks to his direct participation, he had the chance to know peoples' feelings about the project and to make notes of the comments made and criticisms raised by the managers during the design stage. This stage, in particular, required several meetings which were organised as workshops. During these meetings, in fact, managers had the chance to exchange their opinions and ideas about the company's strategy and to discuss them in order to identify a set of key performance areas on the basis of which it would then be possible to identify a set of measures. Following the design stage, the implementation stage was carried out by the team and the controller. In this stage, particular attention was focused on the measurement of the indicators as well as on the adaptation of the existing information system; the latter was necessary to provide the useful information needed to measure the indicators that were not already available.

Given the part played by the author and the whole team during the design and implementation stages, they could be considered "experts" in this case (Jönsson and Lukka, 2007). In fact, as academics, they were perceived as people with a deep knowledge of the topic and their role was not only that of direct participants in the BSC design. Rather, they guided the discussions among managers and fostered the convergence towards a common view of the company's strategy and of the best indicators that should be used to monitor it. Despite their role as "experts", the author and the rest of the team were not perceived as "outsiders". This, in fact, is one of the main limitations of the interpretive approach, since being perceived as outsiders could have led to a limitation of the information that people were willing to share with them (Lukka, 2000). This could have compromised the analysis, the understanding, and the interpretation of what happened on the research site. There are three primary reasons why this did not happen. First and foremost, the team was already well known by the group of managers that took part in the design stage, because they had already been consultants to the same firm when it decided to revise its management accounting system. Next, the BSC project had a very strong sponsorship by the CEO who felt very sure about its usefulness for the whole company and tried to convince all the people that were directly involved in the design stage of the same. Finally, the first meeting in which the BSC project was presented and introduced was opened by another academic who had a strong and lengthy professional relationship with the firm. As a consequence, he was perceived by people to be a trustworthy man and this inevitably favoured the acceptance of the project.

The main source of information was direct observation. During every meeting, in fact, the author and the other members of the team took notes of what people said and about their ideas and impressions. Moreover, several internal documents were analysed, as the existing information system and the information it provided at the moment in which the BSC was implemented within the organisation.

4. The company profile

The "Beta Spa" is an large-scale Italian retailer which distributes food and non-food products. It was founded in the late 1800s as a family business but, over time, it grew to become one of the biggest retailers in Central Italy. It predominantly worked as a small emporium until 1953 when the owners decided to significantly reorganize the company in a process that led to increasing the number of branches and expanding the product range to include food and clothes. In 1970, food became the core business and product quality as well as customer satisfaction became the key values for the company and the central themes of its business strategy. At the same time, new supermarkets were opened in different regions in the centre of Italy. This allowed Beta Spa to become one of the biggest players in this sector in the centre of Italy. Beta's activity is based on three different brands which correspond to different kinds of dealers. Each one is basically addressed to different customer targets and, as a consequence, each provides different products at different prices according to the specific customer needs.

Today Beta manages about 200 dealers thanks to its 2,500 workers. Its turnover in 2012 was 611 million Euros and a significant rise is expected thanks to the expansion strategy that is going to be implemented and that will lead the company to open new dealers in many different areas in Central Italy. The focus on customers' needs and their satisfaction as well as on the quality of the products and the links to local institutions have represented some of

the most important critical success factors for Beta Spa. Its strategy, in fact, is centred on these values and it is clearly formalised and communicated to every single worker within the company. Given the relevance that strategy has within the analysed company, in 2012 Beta Spa decided to start a project aimed at designing and implementing a BSC. This was done in order to allow the General Manager and top management to have a performance measurement system which would permit the constant supervision of company strategy and the critical success factors it was based on. In this perspective, the BSC was not originally thought of as a tool that could be used to monitor intangible assets. Rather, it was conceived as a tool whose primary aim was to support top management's strategic decision making as well to control results that resulted from the implementation of the company's strategy.

The project was composed of two different stages. The first concerned the design of the BSC and it involved all the managers. In this first stage, the company strategy and the critical success factors were discussed and shared among the participants in order to define the BSC architecture, namely the perspectives in which it was organised as well as the key performance areas (KPA) that needed to be monitored through selected indicators. The second, instead, concerned the implementation of the BSC, namely the phase in which indicators had to be calculated and information had to be put into the software that would allow the management of the BSC; both the team and the controller were deeply involved in this stage.

5. The design stage of the BSC

During the first stage, several workshops were organised in order to introduce the BSC, to illustrate its distinctive features as well as the reasons for which it was going to be introduced within the company. All the top managers, about fifteen people, took part in this stage. During the first two meetings, the BSC was presented and people started to become familiar with some relatively new terms like "key performance areas", "critical success factors" or "key performance indicators". According to Kaplan and Norton, this first stage is an educational phase in which the reasons why it is useful to implement a BSC and the way it should be designed must be clearly communicated to all the participants in the project. This allowed people to feel they were part of the project and to understand the contribution they were expected to give. Three other meetings were dedicated to the definition of the key success factors and to determining the most relevant ones, namely those that would be monitored through selected indicators within the BSC. According to Kaplan and Norton the BSC was applied to the four traditional perspectives: customers, internal processes, financial, and learning and growth. For every perspective, a limited number of key performance areas were identified (no more than four key performance areas for every perspective). Focusing the attention on the customer and the learning and growth perspectives, the main key performance areas were the following:

CUSTOMER PERSPECTIVE

Customer satisfaction

Customer loyalty

Cooperation with local institutions

LEARNING AND GROWTH PERSPECTIVE

HR competencies

Internal communication

Information system innovation

In the customer perspective what had to be measured, in terms of key performance areas, was the level of customer satisfaction, the level of customer loyalty and the cooperation with local institutions. Customer satisfaction and loyalty, in fact, were considered critical success factors for the company given that they were able to influence the financial performance and they represented relevant objectives for the company's strategy. At the same time, the company needed to cultivate and to develop its relationship with local institutions because this was perceived as a way to better serve its customers.

In the learning and growth perspective the topmost KPA was the level of competencies of all the people that worked in the company. Another relevant need concerned the increase in the level of internal communication. During the meetings that led to the definitive version of the BSC, in fact, top managers frequently said that a higher degree of communication among people was necessary in order to generate more coordination among the human resources. Finally, the third KPA concerned innovation in the company's information system. In particular, what was actually perceived as relevant was the need to renovate the way the company shared information about itself and its services as well as the way it kept in contact with external stakeholders.

On the basis of the abovementioned key performance areas, indicators were selected. Originally, the team operated by identifying the indicators that would allow the best measurement of every performance area. More specifically, for customer satisfaction it was suggested that a customer satisfaction index be adopted because, at that moment, there was no such index calculated in the company. Customer loyalty was measured by taking into consideration the so-called "fidelity cards", namely those cards that were distributed to customers, allowing them to benefit from special discounts for card-holders. Through these cards it was possible to determine the number of customers that went to the supermarket at least once a week and to compare this number with the total number of customers (determined on the basis of the total number of sales receipts). Basically, the underlying assumption is that a loyal customer is one who goes to the supermarket to buy something at least once a week. The quality and the relevance of the relationships with local institutions was measured through the number of projects that were activated every year with local institutions. In this first stage, the goal was to measure the company's ability to activate these relationships, rather than to look at their actual effectiveness.

With regard to the learning and growth perspective, the first performance area concerned the human resources competences. This was perceived as a particularly relevant question and the company clearly perceived the need to improve it at both the operational and the managerial level. Beta Spa was already measuring the level of competencies of their human resources, nevertheless it also acknowledged that the existing system was not completely reliable. This was due to the fact that the system was based on an evaluation made by the top managers. In other words, managers were called to evaluate the level of competences of their subordinates and, at the same time, they had to evaluate themselves through a self-evaluation. The consequence was that the level of competencies of the subordinates was always lower than that of the top managers. Moreover, the scale that was used was not considered capable of reflecting the real level of human resources competencies since it led to a concentration in the middle level and to a consequent standardisation of the final results. Despite these limitations, the company decided to adopt the abovementioned indicator in order to measure the average level of competencies of its employees.

With regard to the second key performance area, instead, it was suggested by the team that an internal analysis be carried out in order to measure, through questionnaires, the degree of information sharing among people who worked within the company. This was the key performance area for which the team had more problems in terms of measurement since it was an area which was perceived as critical for people but it was not actually monitored by the company. Finally, with regard to the last key performance area, the information system innovation, the team proposed that the company should monitor both the number and the impact of every single innovation project that was carried out. In order to do it, three indicators were suggested: the number of innovation projects that were submitted to the top managers in order to be approved, the number of projects that had been carried out by respecting the time planning and, finally, the impact of every single project in terms of benefits that it had been able to originate.

After having identified the abovementioned indicators, the design stage of the BSC was completed. The implementation stage, in fact, directly involved the team and the controller who were called to measure the indicators and to submit the final results to top management.

6. The implementation stage

The implementation stage directly involved the controller and the team. This stage is one of the most relevant and critical since it is during this stage that the BSC is put to work within the organisation. As a consequence, problems that are not normally noticed during the design can emerge and, in some cases, can lead to the failure of the BSC's implementation and use.

In Beta Spa, these problems manifested themselves and impacted on the measurement of some of the indicators that were originally introduced within the designed BSC. The existing information system, in fact, had already produced some of the information that was necessary to calculate the indicators. Despite this, when the implementation stage started it was clear that it would be possible to calculate only a limited number of indicators, in particular those that were predominantly part of the financial and the internal process perspectives. With regard to these perspectives, in fact, the existing information system already provided information necessary to calculate the defined indicators like EBITDA, ROI, rate of turnover growth, cash receipts per square meter of surface area, number of cash register receipts per hour worked, time to opening, etc. This leads to two considerations. The first is that Beta Spa did not have an information system only based on financial information, like many other companies. This was demonstrated by the fact that, in addition to the traditional financial information, the existing system also supported the provision of other information which was substantially quantitative and non-financial. The second consideration is strictly linked to the first and it concerns the company's culture which proved to be open to the measurement of particular aspects which were not directly linked to the economic or financial results. In other words, Beta Spa already perceived the importance of measuring quantitative (and non-financial) aspects of its activity. What deserves to be underlined is that there was the tendency to adopt an internal perspective which was predominantly focused on the effectiveness and the efficiency of the internal process. Information about external variables, in fact, was obtained through ad-hoc reports which were provided by a specialised company. Moreover, they substantially concerned competitors and their prices since this was perceived to be critical by Beta Spa in order to be competitive within its sector. This orientation towards the provision of non-financial information on effectiveness and efficiency, as well as the provision of financial information allowed the team to easily calculate indicators that, during the design stage, had been included within the financial and the internal processes perspectives.

Something different happened when the team started measuring the indicators which were part of the customer and the learning and growth perspectives. In this case, in fact, it clearly emerged that a gap existed since the company was not used to measuring these peculiar aspects of its activity. It is also necessary to underline that there was a significant difference between the way the two perspectives were actually perceived. In fact, the customer perspective was really perceived as one of the most critical. The customer and, in particular, his/her satisfaction was a central theme for the company's strategy, as already stated in the section dedicated to the company profile. This was also evident in the strategic guidelines that were displayed on the walls inside the company. In all of them, a huge emphasis was put on the customer and on customer satisfaction. Despite this, up to that moment, no particular indicators had been calculated in order to analyse the relevance and the strength of the company's relationships with customers. When the implementation stage was about to start, the marketing department was carrying out a preliminary customer satisfaction survey in which customers were asked to rate (from 1 to 10) some items in terms of their price-to-quality ratio and also asked to assign a score regarding the professionalism of the people that worked at the stores. By grouping together the number of customers that expressed a very positive answer (from 8 to 10), it was possible to calculate an index from which the degree of customer satisfaction was inferred. This analysis was only partially able to respond to the requests made by the team and the management accountant, since the BSC needed the measurement of customer satisfaction not only with regard to the professionalism of the workers and the economical aspect of the products, but also with regard to the degree of assortment and the quality of fresh products. Although the team tried to ask for an expansion of the existing questionnaire, the collection of data and information continued to be focused on the pre-determined topics; the reason given was that it would have been too difficult to change the questionnaire and the predisposition of the information system which had already been organised to collect and process the data on the basis of which the original questionnaire was structured. Minor problems arose with the other KPA which were introduced in the customer perspective. In this case, in fact, the existing information system already provided the information that was necessary to calculate the identified indicators. Although the latter were not already calculated, it would have been sufficient to extract data from the information system and to use it to calculate the indicators. So, in this case too, the existing information system played a relevant role in affecting measurement.

With regard to the learning and growth perspective, there were significant problems linked to measurement. As mentioned above, Beta Spa already had a system through which it measured the competence level of the company's human resources. What was being questioned was the reliability of the information that was provided by that system. The HR manager clearly stated that it was necessary to modify it in order to make it more reliable and able to express

the real level of competencies of the company's human resources. Despite this, during the meeting with the controller and the HR manager, it clearly emerged that they did not want to make any changes in the existing system, at least not at that moment. They suggested adopting the index that the system provided as a proxy for the degree of competencies, even though both of them were aware that it would not be sufficiently reliable. One of the reasons why this suggestion was put forward had to do primarily with the excessive time needed to adapt and make the existing system more reliable, thus requiring investments which, at that moment, the company could ill afford. Moreover, what was plain to see was the limited attention paid to this particular perspective of the BSC, as it was not considered to be as crucial as the other perspectives. Also, the controller very clearly pointed out and stressed the fact that problems would have emerged if a more accurate measurement of these items, linked to the level of the company's human resources, would have been suggested.

The situation was even more critical with regard to the other KPAs that were considered in the learning and growth perspective. In this case, in fact, the existing information system was not structured so as to provide information on the degree of information sharing or on the innovation of the information system and the subsequent impact. During the meetings, the team tried to underline the importance of providing this kind of information. When the BSC was designed, in fact, the group perceived these items as relevant for the future of the company. In other words, it played an important role in trying to convince the controller of the need to obtain this kind of information. Nevertheless, this was not viewed as a priority for the company. What was actually suggested by the controller was to avoid the measurement of the degree of information sharing and to adopt a proxy for the measurement of the information system innovation. Also in this case, what was proposed was to measure it through the number of new projects that were approved by top management without focusing on their impact. This indicator, in fact, was already available given that the controller constantly updated the company's Intranet by publishing every new project, together with its main features, that was approved by top management. In other words, the information provided by the existing information system was used again as a proxy to measure one of the indicators that were part of the BSC.

In light of what has been said, the implementation stage of the BSC led to a partial measurement of the indicators that were defined during the design stage. In particular, what deserves to be underlined is that the perspective in which the company experienced the most difficulties were those in which intangible assets were more present. In this specific case, the role of the existing information system was fundamental, given that it affected the measurement as well as the way measures were obtained in the customer and the learning and growth perspectives. This will be discussed in the next section.

7. Discussion and conclusions

Previous contributions on both accounting and intangibles assets have often shown that one of the main reasons for which the measurement of intangibles is sometimes problematic is strictly linked to the fact that they are normally measured through the use of non-financial indicators (Bornemann, 1999; Ittner and Larcker, 2003; Vaivio, 2004; Catasús and Gröjer, 2006, Chiucchi, 2013). The fact that companies are more accustomed to measuring their performance through the use of financial indicators can represent an obstacle for the measurement of what cannot be expressed and represented, whether in qualitative or quantitative terms. Hence, criticisms normally pertain to a limited ability to calculate non-financial indicators. What has been analysed through the Beta Spa case study is that problems can also arise when the company has a culture which is not strictly focused on the use of financial performance indicators alone. And the analysed case is even more significant since the tool which was implemented, the BSC, is a tool which leads the company to use both financial and non-financial indicators, in order to ensure an accurate measurement of the company's performance. In the case of Beta Spa, in fact, the adoption of financial and non-financial indicators was quite frequent. Before the BSC implementation, the company already used both kind of indicators to monitor its performance or specific aspects of it. This indicates that the problems the company experienced during the implementation stage cannot only be linked to the limited familiarity with the use of non-financial indicators. Rather, they lie, firstly, in the limited culture and knowledge of intangibles and their role in company performance and, secondly, in the role played by the existing information system. When the company was called to measure indicators in the perspectives which were more closely linked to intangibles (like the customer and

the learning and growth perspectives) a situation of “inertia” clearly emerged. It manifested itself through a tendency for postponing or avoiding the measurement which was justified by saying that there was not enough time and money to do it and that the resulting benefits would not be comparable to the costs that the company had to bear in order to adapt the existing information system to the new information needs. This kind of poor motivation inevitably shows that the limited knowledge of the importance and of the relevance that intangibles can have in affecting organisational performance can severely limit the attitude towards their measurement. And this is even more evident in the specific case of Beta Spa since the company did not have any problem in calculating other indicators (in the financial and the internal process perspectives) although they were not already provided by the information system at the time of the BSC implementation.

In addition to this, what deserves to be underlined is the peculiar role played by the existing information system. In Beta Spa, in fact, it was perceived and understood to be a tool from which proxies of the defined indicators would be gathered, rather than a system that was called upon to provide the requested and new information. In other words, the implementation of the BSC and the consequent need to also monitor some of the most relevant intangibles assets through it did not represent sufficient motivation to change and/or adapt the existing information system in order to make it able to provide the necessary (and new) information. It was not the “engine” that activated a revision of it. Rather, the existing system and the information it provided was assumed to be the source from which data would be collected; this data would then lead to the revision of the defined indicators, through the identification of proxies. It seems clear that in the case of the information system as well, a situation of “inertia” had emerged. However, this inertia had a considerable impact on the BSC and its implementation since it affected the measurement of intangibles by driving it towards the use of not entirely reliable information, as in the case of the human resources competences, or towards the reduction of the number of indicators through which relationships with customers and organisational learning and growth would be monitored, as in the case of the customer satisfaction index. In some cases, this inertia also led to the elimination of some indicators that were originally considered necessary to monitor some KPAs within the abovementioned perspectives. This effect, of course, is a sort of combination of effects which can be understood only in light of the limited culture on intangible assets and of the limited willingness to modify the existing information system.

The contributions made by this study are manifold. First, and foremost, it contributes to the literature on management accounting by showing some of the difficulties that can arise when a BSC is implemented (Schneiderman, 1999; Neely and Bourne, 2000). In particular, it shows that there can be a divergence between what is designed and its implementation since there are many variables that can influence the concrete adoption of a BSC. Moreover, the study also contributes to the literature on intellectual capital (Vaivio, 2004; Catasús and Gröjer, 2006; Chiucchi, 2013). It demonstrates, in fact, that problems that are normally associated with the measurement of intangible assets are not always strictly linked to the limited use of non-financial information. Rather, there is a cultural question and it is necessary to fully understand the role that habits and routines, especially those that are linked to the existing information system, can play with regard to the measurement of intangible assets. Thus, an analysis of the information system can be instrumental in providing a full comprehension of the phenomenon of inertia that can be traced back to the design and the implementation of systems used to monitor intangible assets.

References

Contact Author for the list of references

**CONVERTING KNOWLEDGE INTO FINANCIAL VALUE:
LESSONS FROM A JOINT-VENTURE PROJECT**

Maria Serena Chiacchi, Marco Giuliani and Stefano Marasca Università
Politecnica delle Marche Department of Management • Italy

Corresponding author: Marco Giuliani – m.giuliani@univpm.it

CONVERTING KNOWLEDGE INTO FINANCIAL VALUE: LESSONS FROM A JOINT-VENTURE PROJECT

Abstract

In recent years, there is a growing attention on the role of knowledge within the value creation process as it is considered one of the most important factors of production for enterprises. If knowledge of an enterprise encompasses characteristics such as heterogeneity, imperfect imitation, imperfect substitutability or imperfect mobility, it creates a more lasting competitive advantage for the enterprise (Barney, 1991; Wernerfelt, 1984). The capabilities-based view also argues that the root of lasting competitive advantage is an organisation's capacity to create new knowledge (Edvinsson and Malone, 1997; Stewart, 1997). Thus, how an enterprise updates its knowledge base to bring innovation to its products, services, operation processes, management methods and strategies is a subject of urgent interest to researchers.

Knowledge creation and development processes can be internal or external. Due to the increasing level of competition that is characterizing the market and to the fact that knowledge requires time to be created, more and more companies tend to prefer acquiring new knowledge rather than developing it internally. Consequently, alliances become a strategic device useful to effectively apply and integrate the firm's knowledge resources portfolio very quickly, to build and enforce a sustainable competitive advantage (Baden-Fuller and Grant, 2004; Das and Teng, 2000; Parise and Sasson, 2002; Schildt, et al., 2005).

Enterprises can acquire new knowledge or techniques through various modes of interorganizational cooperation or alliance; these include: research contracts, licensing agreements, minority investments, equity acquisitions and joint ventures (JV). Among these cooperation or alliance modes, the deepest level of commitment and resource investment that can occur between cooperative partners is that of JV (Hyder and Eriksson, 2005; Spekman, et al., 1996). A JV can be described as an independent business entity that is co-created and co-owned by two or more legally distinct organizations (the parent organizations) that combines resources provided by partner enterprises.

The importance of knowledge flows in JVs has been attracting an increasing amount of attention from the research community. The focal point of these analyses are the relevance of the selection of the right partner, or the mechanisms, tightness and focus of JV control (Bleeke and Ernst, 1991; Gulati, 1999; Kogut, 1988; Kumar and Seth, 1998; Parkhe, 1993). Despite the importance of knowledge in JV, there are few studies concerning the role that knowledge measurements can play in JVs' context (Ordonez de Pablos, 2004; Zhao and Richards, 2012).

In accounting the adage "you can manage what you can measure" has boost the studies about how to measure knowledge (Andriessen, 2004; Guthrie, et al., 2012; Sveiby, 2004). These methods and tools underlie the idea that through measurement it becomes possible to mobilise knowledge in order to create value (Catasús, et al., 2007). More in depth, it is possible to find two main research perspectives: the static and the dynamic one. While the first perspective focuses on the stock of knowledge (static approach) in order to understand the difference between market value and book value, the dynamic perspective is centred on flows. Several scholars have highlighted that investigating knowledge dynamics allows understanding how knowledge creates value, how it works and what it does within the organisations (Kianto, 2007; Marr, et al., 2004; Mouritsen, 2006).

Studies about accounting for knowledge tend to be focused on intra-organizational knowledge, i.e. the stock and flows of knowledge created and developed within a specific organization (Chaminade and Roberts, 2003; Hensler and Huq, 2005; Mouritsen and Flagstad, 2004; Mouritsen, et al., 2001b), and therefore there is little research about inter-organizational knowledge, i.e. knowledge created and developed through cooperation or alliances.

Considering the call for investigations on inter-organizational knowledge flows, the aim of this study is to analyse a JV project from a value creation-value conversion perspective, i.e. the purpose of this investigation is to understand how the development of a JV can contribute to the transformation process of knowledge into financial capital. Within this aim, it will be also considered the role that a knowledge measurement system plays in order to support the management and control of the knowledge inflows and outflows within a JV project. In order to achieve this aim, the implementation process of an accounting system useful to control the inter-organizational knowledge flows of a parent company will be analysed adopting an interventionist research approach (Dumay, 2010; Jönsson and Lukka, 2005).

In comparison with previous studies, this one does not focus on accounting for knowledge flows within the firm but on inter-organizational knowledge flows. Moreover, due to the analysis of a case study adopting an interventionist approach, this study tries to bridge the gap between theory and practice.

The main results are as follows. First, it emerges that a JV can be considered as a value conversion device as it allows to transform knowledge into financial capital (Quevedo and Roberts, 2005). This result enriches the studies about how

knowledge creates value and how it influences the financial performance of a company showing that this process can occur not only within an organization but also between organizations. Second, within a JV development process, knowledge measurements assume different purposes and arise different accounting challenges in dependence of the phase in which the JV is (find, design or manage). Moreover, it emerges that the implementation of specific indicators allows better controlling of the knowledge inflows and outflows in order to balance them and to grasp the managerial attention on aspects of the relationships with the JV and the partner that are often overlooked.

1. Introduction

In the last decades, there has been a growing attention on the role of knowledge within the value creation process as it is considered one of the most important factors of production for enterprises. If the knowledge of an enterprise encompasses characteristics such as heterogeneity, imperfect imitation, imperfect substitutability or imperfect mobility, it creates a more lasting competitive advantage for the enterprise (Barney, 1991; Wernerfelt, 1984). The capabilities-based view also argues that the root of lasting competitive advantage is an organisation's capacity to create new knowledge (Edvinsson and Malone, 1997; Stewart, 1997). Thus, how an enterprise updates its knowledge base to bring innovation to its products, services, operation processes, management methods and strategies is a subject of urgent interest to researchers.

In accounting the adage "you can manage what you can measure" has boost the studies about how to measure knowledge (Andriessen, 2004; Guthrie, et al., 2012; Sveiby, 2004). These methods and tools underlie the idea that through measurement it becomes possible to mobilise knowledge in order to create value (Catasús, et al., 2007). More in depth, it is possible to find two main research perspectives: the static and the dynamic one. While the first perspective focuses on the stock of knowledge (static approach) in order to understand the difference between market value and book value, the dynamic perspective is centred on flows. Several scholars have highlighted that investigating knowledge dynamics allows understanding how knowledge creates value, how it works and what it does within the organisations (Giuliani, 2014; Kianto, 2007; Marr, et al., 2004; Mouritsen, 2006).

Studies about accounting for knowledge tend to be focused on intra-organizational knowledge, i.e. the stock and flows of knowledge created and developed within a specific organization (Chaminade and Roberts, 2003; Hensler and Huq, 2005; Mouritsen and Flagstad, 2004; Mouritsen, et al., 2001b), and therefore there is little research about inter-organizational knowledge, i.e. knowledge created and developed through cooperation or alliances. Due to the increasing level of competition that is characterizing the market and to the fact that knowledge requires time to be created, more and more companies tend to prefer acquiring new knowledge rather than developing it internally. Consequently, alliances become a strategic device useful to effectively apply and integrate the firm's knowledge resources portfolio very quickly, to build and enforce a sustainable competitive advantage (Baden-Fuller and Grant, 2004; Das and Teng, 2000; Parise and Sasson, 2002; Schildt, et al., 2005).

Enterprises can acquire new knowledge or techniques through various ways of interorganizational cooperation or alliance; these include: research contracts, licensing agreements, minority investments, equity acquisitions and joint ventures (JV). Among these cooperation or alliance models, the deepest level of commitment and resource investment that can occur between cooperative partners is that of JV (Hyder and Eriksson, 2005; Spekman, et al., 1996). A JV can be described as an independent business entity that is co-created and co-owned by two or more legally distinct organizations (the parent organizations) that combines resources provided by partner enterprises.

The importance of knowledge flows in JVs has been attracting an increasing amount of attention from the research community. The focal point of these analyses are the relevance of the selection of the right partner, or the mechanisms, tightness and focus of JV control (Bleeke and Ernst, 1991; Gulati, 1999; Kogut, 1988; Kumar and Seth, 1998; Parkhe, 1993). Despite the importance of knowledge in JV, there are few studies concerning the role that knowledge measurements can play in JVs' context (Ordonez de Pablos, 2004; Zhao and Richards, 2012).

Considering the call for investigations on inter-organizational knowledge flows, the aim of this study is to reflect on the role of knowledge measurement systems in order to support the management and control of the knowledge inflows and outflows within a JV project. In order to achieve this aim, the implementation process of an accounting system useful to control the inter-organizational knowledge flows of a parent company will be analysed adopting an interventionist research approach (Dumay, 2010; Jönsson and Lukka, 2005).

In comparison with previous studies, this one does not focus on accounting for knowledge flows within the firm but on inter-organizational knowledge flows. Moreover, due to the analysis of a case study adopting an interventionist approach, this study tries to bridge the gap between theory and practice.

The structure of the study is outlined as follows. The next section proposes a brief review of the prior knowledge of the basic elements of the study, followed by a description and in-depth analysis of the case study carried out. In the central part, an attempt will be made to make sense out of the case findings and to develop the theoretical arguments of the study. Finally, some valuable insights are extracted and systematised to draw some conclusions and to propose future research opportunities.

2. Accounting For Knowledge Flows In Joint Ventures: The State Of The Art

2.1 Joint Ventures And Knowledge Flows

A JV can be described as a new business entity that is created by two or more legally distinct organizations (the parent organizations). Parent organizations hold ownership interests and actively participate in the decision making activities of the jointly owned business entity (Geringer, 1991; Parise and Sasson, 2002; Park and Ungson, 1997).

The JV development process can be ideally subdivided into the following main steps:
find phase: the first phase involves determining alliance strategy decisions as well as screening and selecting potential partners;
design phase: the second phase includes structuring and negotiating an agreement with the partner and defining the partner's contribution to the JV;
manage phase: in the last phase organizations the JV starts up and is developed.

From a temporal point of view, these phases are sub-sequential multi-activity items with perfect concurrence (Ancona, et al., 2001a; Ancona, et al., 2001b) which can be mapped on a temporal frame to understand the process and the changes occurred in dependence of the time. It is also important to underline that the temporal distinction between them is not a quantitative concept but more a qualitative one because the division of the process in phases is conventional and it is important only to understand the changes and the different activities carried out by the management. It is essential to point out that as the phases are sub-sequential it implies that each phase influence the following. Moreover if a phase does not end with the expected result it can happen that the single activities of each step have to be repeated. For example, if the JV in the manage phase does not achieve the planned result it may happen that a new JV has to be developed with another partner and then the design phase may start for the second time.

Within the development process of a JV, specific flows between the parent companies and from and to the JV can be identified as transfer, transformation and harvesting (Berdrow and Lane, 2003; Harrigan, 1988).

“Transfer” is the migration of all or part of the existing resources between partners in the JV and between the partners and the JV itself. As mentioned above, JVs can be considered a strategic means to access resources, which are not widely distributed or exploited, providing opportunities and the potential for value creation. The quality and quantity of these flows depends on several variables such as the previous relationships existing between the partners or the provisions contained in the agreement signed by the partners: in the agreement, in fact, the resources to transfer, the timing of the transfer and the adopted techniques to realize the transfer are usually described in detail.

“Transformation” is the phase that develops inside the JV and it can be defined as the integration, implementation and leveraging of the resources transferred by each partner to the JV to create new resources which are the result of the JV activities. In other words, transformation takes place in the manage phase, when the JV starts working and the resources are combined to generate value. The quality and quantity of this flow depends on the attributes of the resources transferred and on the activity developed jointly by the partners and by the JV management.

Finally, “Harvesting” involves flows from the JV to the partners where they can be applied in other internal or external activities. This flow exists in any kind of JV, even if they are not planned (Baden-Fuller and Grant, 2004). In fact, it usually takes place during the manage phase, in a more or less explicit way, when the partners, through certain activities such as imitating or acquiring the resources transferred by the other partner, can apply these resources to their own situation. So, this last flow can be considered an effect of the harvesting. The quantity and quality of the harvesting flow depends on how intensively each partner takes part in the JV management.

2.2. Accounting For Knowledge

According to the adage “you can manage what you can measure” there is an increasing interest in measuring knowledge. In the literature it is possible to find several measurement frameworks and guidelines (Andriessen, 2004; Giuliani and Marasca, 2011; Sveiby, 2004). The idea of these models is to make the contribution of knowledge to the value creation process visible and understandable and, consequently, manageable.

More in details, it seems that two different (although related) perspectives on knowledge dominate (Brännström, et al., 2009; Brännström and Giuliani, 2009).

One perspective, that can be named as “static”, focuses on measuring the value of knowledge (Boeker, et al., 2005; Fincham and Roslender, 2003). The static perspective seems to spring from the fact that the capital market has valued the firms’ equity (much) higher than the book value (Edvinsson and Malone, 1997; Sveiby, 1997). Consequently, studies are oriented in visualising knowledge resources, in drawing their boundaries and in measuring their value in a specific moment. The main research questions are what knowledge is and how to measure it in order to increase its level and to report the overall value of the company. Here, knowledge is often assumed as something that can be relatively easily identified, located, classified, measured and, valued as any other resource. Consequently, the translation of knowledge into numbers is central in this accounting approach and the focus tends to be in developing indicators, classifications, methods and tools able to capture the stock of knowledge that belongs to a company in a specific moment in time. The main critiques of this approach are that it is not able to support a complete understanding of knowledge, its measurement and that the reporting models are mainly backward looking rather than future oriented and, finally, it concentrates the attention of the management and stakeholders on what a company owns rather than on how it uses its knowledge resources to produce superior performance.

The other perspective is instead centred on the dynamic aspects of knowledge (Fernstrom, et al., 2004; Giuliani, 2014; Meritum, 2002; Mouritsen, et al., 2001b). This perspective is also called as “dynamic”. According to Kianto (2007), three different conceptions of “dynamic” can be found in literature.

From the analysis of the extant literature, it seems that there are three main conceptions of “dynamics” that can be found (Kianto, 2007). The first one refers to the value creation process and, consequently, it focuses on the interactions and combinations among resources. This conception is centered on providing information concerning which resources can be used as levers to create value. Therefore, knowledge becomes a phenomenon of interactions, transformations and complementarities; consequently, it can be understood by focusing not only on the knowledge resources but also, if not mainly, on their contribution to the value creation process and the development of sustainable advantages (Cuganesan, 2005; De Santis and Giuliani, 2013; Edvinsson, 1997; Giuliani, 2013; InCaS-Consortium, 2008; Ling, 2012; Mouritsen and Larsen, 2005; Roos, 1998; Skoog, 2003; Wiig, 1997). The second interpretation of knowledge dynamics is related to creation and development activities. According to the Meritum Project (2002), these activities are the ones undertaken to acquire or internally produce knowledge resources, to sustain and improve existing ones, and to measure and monitor them. This dynamic nature means that knowledge has to be used and combined with other resources in order to create value (Giuliani, 2013; Marti, 2001; Meritum, 2002; Mouritsen, 2009; Mouritsen and Larsen, 2005). The last and third view is the one that matches the idea of dynamics with that of change. More in depth, knowledge enables a company to learn and to innovate and consequently to change proactively in order to survive in spite of the turbulent environment. Thus, it is important to study how knowledge changes over time, the sources and the processes of the change (Arenas and Lavanderos, 2008; European-Union, 2006; Giuliani, 2009; Green, 2006; InCaS-Consortium, 2008).

Although different in scope, these two accounting perspectives (static and dynamic) are linked together for at least three reasons. One, they evolve around the same practice: how to recognize, measure and report knowledge. Two, they both refer to the value creation dynamic: how to manage knowledge (i.e. the managerial perspective) so that potential value becomes realized value (i.e. the realization perspective). Three, the perspectives are based on a critique of “traditional” accounting (i.e. a critique of both management control models and financial accounting regulations), which are not compatible to knowledge firms.

Knowledge measurement models are mainly designed to visualise, understand and manage intra-organizational knowledge flows while they tend not to focus on the fact that knowledge flows can also occur between organizations, such as within the parent companies and their JV, and they also need to be controlled. In fact, while

there is a consolidated debate about inter-organization accounting in terms of how to account for costs and benefits of an alliance (Agndal and Nilsson, 2009; Coad and Cullen, 2006; Mouritsen, et al., 2001a; Van der Meer-Kooistra and Scapens, 2008), there is very little literature that considers how to account for knowledge. Thus, this study aims to do just that, to analyse the contribution that accounting can offer in managing a JV development process where knowledge plays a primary role.

3. Design Of The Study

In order to achieve the aim of this study a case study referred to the design and implementation of a system for measuring and reporting knowledge within a JV project is presented. The case study method was considered appropriate for finding elements, dimensions and events that are important and that have not been adequately considered into the accounting models, in general, and into the measurement of knowledge, in particular. Thus, this approach allows achieving a potential discovery of new conditions and interactions that are important for understanding the construction of time within organisations (Yin, 2003).

The actual research project was undertaken using an interventionist approach (Jönsson and Lukka, 2005; Lukka, 2005). This is based on a collaborative process between the researcher and client, with critical inquiry into problems of social practice in a learning context (Argyris, et al., 1985, p. 237; Coghlan and Brannick, 2001). The interventionist approach was chosen because it allows scientific research and innovative practical solutions to be developed (Kaplan, 1998; Kasanen, et al., 1993; Labro and Tuomela, 2003). Moreover, it offered the possibility, to the researchers participating in the project, to achieve an in-depth knowledge of the context, the variables and the process under analysis. Finally, the interventionist method has been chosen because, in accounting studies, in general, and in the literature about knowledge measurement, in particular, there is a strong call for case studies developed with this methodology in order to test and observe in practice concepts, methods and tools (Chiucchi, 2013; Dumay, 2010; Giuliani, 2009; Giuliani and Marasca, 2011; Guthrie, et al., 2012; Marr and Chatzkel, 2004), thus contributing to filling the gap between theory and practice and to enhancing the relevance of management accounting studies (Jönsson and Lukka, 2005).

It is also important to underline that the case study is examined from a longitudinal perspective. Since the interest lies in the design and implementation of a measurement framework, it is important to analyse the evolution of the process over time in order to properly interpret the collected evidence.

Alpha was deemed an appropriate subject for this study for the following reasons. First, Alpha's management is focused on knowledge: they strongly believe that the company can compete and survive in the market only by creating value-added products, and that this is only possible using its knowledge as a lever. Second, Alpha was the parent company that had to transfer to the JV its knowledge about design and production processes and part of its customer list while the other partner was called to transfer only tangible assets. Third, the company was interested in a long-term cooperation with the university researchers (Kasanen, et al., 1993; Labro and Tuomela, 2003) and consequently, it was an opportunity to understand and investigate the measurement and valuation process 'in vivo' or 'in practice' instead of merely 'in vitro', as usually happens (Dumay, 2013).

Data were collected from multiple sources such as annual reports, stakeholder impact reports, internal strategy reports, and semi-structured interviews. More in depth, the largest amount of information had been collected taking part to the focus group, promoted by the CEO and formed by the researchers, the CFO, the area managers, the purchase manager, the R&D manager, the production manager and the CEO himself. The purpose of the focus group was to design and implement some indicators dedicated to monitor the transfer flows from and to the JV. The focus group meetings were based on a semi-structured agenda proposed by the researchers and initially discussed with the CEO and the CFO, modified and then put into action. As planned, six meetings of about two hours each were carried out together with some meetings with the CEO and the CFO and some interviews with single members of the focus group and with some employees. Based on the specific requests of the focus group, the researchers supported Alpha's management in coordinating the discussions useful to design and implement the indicators. More details regarding the activities carried out by the researcher are illustrated hereafter.

4. The Case Study

Alpha is a medium manufacturing firm and an important European player in die-casting zinc and aluminium alloys and related activities for the production of gas burners and components for the automobile and household appliance industries. The company is composed of three Business Units: the first is dedicated to the contract co-design and production of household appliances for other companies; the second realizes its own designed and branded burners; the third is devoted to the contract co-design and production of automotive and technical parts (e.g. parts for gear boxes, car heaters, etc.)¹. In order to set foot in international markets, the company has created branches in USA and Romania. At the time of this research the company wanted to create new braches also in other countries in order to expand its market and to have branches close to the headquarters or the subsidiaries of its main customers. In fact, proximity to customers was considered a source of competitive advantage as Alpha would have been able to deliver its product in a shorter time and to “control and defend” its customers from the attacks of Alpha’s competitors, both local and international ones.

A quality management system -from die designing to manufacturing stages -is applied to make sure high quality standards are met in all of the Group’s facilities. The company’s production process is based on a continuous improvement philosophy: the organisation claims that it continually seeks to improve the level of quality, service and performance and reduce the amount of mistakes made to lower waste and production costs. The manufacturing process follows certified protocols for continuous quality monitoring. In order to put this continuous improvement approach into action, the company has implemented several managerial systems (such as management control systems, cost accounting systems, incentive plans, etc.) useful to monitor, control and develop the strategic processes.

The company is family-owned and the board of directors is formed by the father, who is president and CEO, the son and an external member who is the previous business consultant of the company. While the latter visits the company only for the board meetings, the father and the son work full time in the company. Most of the decisions are centred on and finally made by the CEO. At the organizational level, a significant role is also played by the CFO who is the CEO’s ‘right arm’; he not only takes care of collecting and producing all the information the CEO needs in his decision-making, but he also acts as the liaison between the CEO and the organization. The CEO and the CFO cooperate so closely, that it is possible to say that the company reflects their managerial styles.

Due to this managerial dualism, the company is managed by numbers, i.e. the CEO strongly relies on the numbers and reports that the CFO produces for him; consequently, the accounting system plays a relevant role in company management. The management accounting/control system adopted by Alpha is based on financial (e.g. turnover, production costs, quality and non-quality costs, etc.) and non-financial indicators (e.g. number and value of the orders, number of mistakes and amount of waste etc.). Within this system, the information relating to time is particularly relevant.

The mission of the company is represented by the willingness to become a trustworthy partner of its customers able to support their objectives through relentless technological research and innovation and paying great attention to functional, ergonomic, safety and codesigning aspects. To achieve that mission and maintain its competitive advantage the firm heavily invests on R&D, technical know-how, development and, last generation technology.

The JV project was promoted by Alpha to be able to follow and supply the subsidiaries created in Brazil by its main customer (a multinational company) and consequently to avoid the risk that some important competitors would enter in their rose of suppliers. Moreover, through this strategic device, Alpha would be able to access to a new growing market where die-casters have not the same level of competences, product and process quality and relationships with important players as Alpha.

In consequence of the aim of the JV, Alpha decided to propose to the potential partners a JV in which its main contribution would be mainly represented by knowledge such as market relationships, technical knowledge and production processes while the partner’s contribution would consist mainly in money and tangible capital.

First of all, the Alpha management started mapping the knowledge of the firm.

“We want to show to our potential partner what we have, our competences, our technical processes and our relationships... that is what makes the difference between us and the others...” (the CEO)

In order to accurately identify the resources to transfer a qualitative approach based on direct observation, through semi-structured interviews and data-analysis of company archives, was performed. Even some interviews to the main customers were of help to the management to understand the origin of the “plus” they recognize to Alpha.

In particular, at first the management of Alpha tried to identify the sources of its competitive advantage, i.e. the firm dimensions in which Alpha had an outstanding position in comparison to the whole market and to the companies operating in the Brazilian market (e.g. co-design competences, maintenance competences, relationships with multinational companies, etc.).

Moving from these elements, the management of Alpha discussed about the resources (knowledge, technology, etc.) that can be considered as necessary to create and maintain this competitive advantage. For example, in order to create and maintain the co-design service with the actual quality standards there was the need to have specific design competences, a database containing the information about the previously developed design projects and specific technology (PCs, software, etc.). This cause-and-effect approach was used to identify the resources moving from the identified sources of competitive advantage. The mapped knowledge resources were then classified to have clearer visualization (see table 1).

TAB. 1 -ALPHA KNOWLEDGE RESOURCES

Human Capital	Organizational Capital	Relational Capital
-Design and co-design competences - Die-casting competences -Production competences -Managerial competences -Language competences -Relational competences -Loyalty -Quality of the workplace relationships	-Procedures -Manuals -Database - Strategic Software -Organizational processes -...	-Relationships with prestigious customers -Relationships with customers who generate relevant profits -Relationships with other customers -Brands -...

More insights about some of the mapped resources are reported hereafter. Regarding human capital, the Alpha has developed a very specific and innovative design process, named “co-design”, that requires the active involvement of the customer in the design process and a specific know how of the Alpha’s designers. This process allows to limit the risk of making mistakes in the design process, to reduce the time of the design step and thus to save money. Moreover, regarding organizational capital, Alpha has created a database with all the projects developed with related notes, mistakes, solutions, etc. that allows the designers to have a structured knowledge about what to do and what not to do. Another specific resource was software created by Alpha useful to control the production process and to allow the customers to have real-time information about the processing of their orders. With reference to relational capital, Alpha is the exclusive or main supplier of some multinational companies that are difficult to acquire without developing an alliance with Alpha or starting a tough competition with Alpha itself.

From the mentioned list of resources, Alpha identified the ones that it was willing to propose and, in case, transfer to the JV and to the partner. The choice of the transferable knowledge was done balancing the need to transfer valuable resources interesting for the partner with the need to not disclose all the sources of the competitive advantage of the company, i.e. Alpha had to manage a trade-off between value and risk.

“We cannot disclose all our secrets, the sources of our competitive advantage because that will be too risky in case of failure of the alliance...” (the CEO)

After discussions, it was decided to propose to the potential partner to contribute to the JV with production competences, production processes and its relationships with prestigious customers. So, after having visualized its knowledge resources and defined the ones ideally transferable, Alpha started the selection of the partner.

Due to the fact that the JV would be mainly developed to supply Alpha’s existing customers and to have access to a new market, it was important to find a partner whose resources were useful to “replicate” the production process developed in Italy and whose commercial capital (relationships with customers, brands, etc.) had potential to be increased.

“We need to know if our knowledge is compatible with the one of our partner and with its equipment otherwise the JV will not work properly... its employee should be able to work according to our procedures, with specific equipment and to maintain the customer relationships we are going to transfer” (the CEO)

Consequently, the analysis of the partner resource portfolio was mainly focused on its technological equipment, IT, location, organizational structure and characteristics of its human resources (age, functions, competences, etc.). The idea was to find a partner whose tangible assets could be “easily” combined with the ones of Alpha in order to create value. The focus on the human resources was due to the fact that Alpha wanted to estimate if the employees of the partner would have been able to learn and apply new processes, techniques, etc.

As it would have been too complex to collect, interpret and compare correctly data related to the intangible aspects of the potential partners, the management decided to focus mainly on tangible resources.

“We can try to ask for specific measurements regarding processes or customers but we cannot be sure that they will be reliable and how we should interpret them... to be sure they should allow us to calculate them” (the CFO).

As mentioned by the CFO, the complexity of the measurements was related to their reliability, to the lack of a generally accepted way of calculating specific indicators (e.g. level of competences, etc.) and, in some cases, to the lack of data (for example some partners did not have specific technical information about the production process).

In base of the collected information and of the meetings carried out with the potential partners, Alpha made its choice. More in depth, Alpha made a first selection and identified,

among the list of the potential partners, 3 “finalists”. Then Alpha started a more in-depth analysis of these three potential partners in order to understand their peculiarities, their contribution to the JV, their expected return and their knowledge resources. This analysis was carried out through meetings with the CEOs and CFOs and collection of data from databases, internet, press, customers, middlemen, etc.

After the choice of the partner the design phase began. It is important to remember that in this step the focus of the analysis moves from the inter-partners transfer flows typical of the find phase to the transfer flows between the parents and the JV. Regarding the case study, we remember that while the flow of the Brazilian firm is represented by financial and tangible capital, the Alpha’s one consists in specific knowledge.

The definition and the negotiation activities imply, both for economic and juridical reasons, a precise definition of the quantity and quality of the transferred capital. The definition of qualitative and quantitative aspects lead, in this step, to a detailed description of the capital transferred and to a financial expression of the value of the assets, which is fundamental for the interpretation and comparison of the qualitative-quantitative aspects of the items transferred by each partner (tangible and/or intangible assets) and consequently defining the quote of equity of the JV that belongs to each of the parent companies.

In defining the value of the knowledge contribution of Alpha, the knowledge flows from Alpha to the JV had to be examined analytically. In particular, there was the need to identify the concrete benefits that this knowledge transfer would have brought to the JV and the process that Alpha had to carry out to realize the transfer itself, i.e. Alpha had to define when and how developing specific activities (e.g. training sessions) useful to create a specific knowledge within the JV.

“We do not have to pay anything to our partner in monetary terms but we have to pay the costs related to the fact that some of our employees have to go to Brazil to teach how to use a specific machine or to approach one of our customers... We have also to make the benefits of our contribution clearly visible to our partner...” (the CFO)

Once reached and signed an agreement with the partner, the JV was formed and started up. It means that the third phase, the manage one, began. In this phase, Alpha developed the planned training activities to transfer and implement production competences, commercial capital and procedures.

The combination of the resources (tangibles and knowledge) transferred to the JV leads to the generation of the knowledge transformation flow. Almost simultaneously to the creation and development of the knowledge transformation flow, the parents had the opportunity to use, for their other production processes and/or for different markets, some of the knowledge generated in the JV, acquiring it through their employees who worked in the JV.

Due to the relevance of these flows, there was the need to monitor and control them with specific indicators. In this section, only some of the indicators are the objects of comment. Attention is focused only on those held to be the most suitable to understand how the flows from and to the JV were monitored. In order to do that, the Meritum

tri-part model was adopted to classify the indicators. Thus the panel was divided into human capital, structural capital and relational capital and in each category the inflows and outflows for Alpha were considered.

TAB. 2 -ALPHA'S JV INDICATORS

	Human Capital	Organizational Capital	Relational Capital
KNOWLEDGE INFLOWS	-Level of managerial/language/technical competences of employees involved in the JV -...	-Data input in Alpha's database -...	-Economic benefits generated for Alpha by the JV -Relationships activated by Alpha through the JV -...
KNOWLEDGE OUTFLOWS	-Hours of training to the employees of the JV -Costs of training to the employees of the JV -N. of inspection in the JV -...	-Index of usage of the intranet/software -Index of shared usage of spaces -...	-Number and value of the orders transferred by Alpha to the JV -Investments in marketing activities carried out by Alpha with benefits for the JV -N. of meetings with the partner -...

As for the human capital, regarding the benefits for Alpha the idea was to monitor the increase of the level of specific competences in the employees of Alpha involved in the JV as it was expected that they would acquire new skills or develop their language or managerial competences. On the other hand, to be part of the JV Alpha had also to transfer knowledge and consequently it had to monitor all the training activities carried out.

Regarding the organizational capital, it was interesting to monitor the level of system integration of the JV with the firm. This cause the implementation of an indicator related to the usage level of the intranet created between Alpha, the other parent and the JV: the idea was the more the intranet is used the more integration exists. The same thought leads to the definition of an indicator that should represent the logistic integration that is to say the shared use of specific place such as warehouses, show rooms, etc.

Lastly, in the section related to the relational capital the benefits generated by the JV (mainly financial capital flows as dividends, extra sales, cost savings for economy of scale, etc.), its volatility and the activities developed to the JV have been monitored.

5. Discussion And Conclusions

Considering the call for investigations on inter-organizational knowledge flows, the aim of this study is to reflect on the role of knowledge measurement systems in order to support the management and control of the knowledge inflows and outflows within a JV project. In order to achieve this aim, the implementation process of an accounting system useful to control the inter-organizational knowledge flows of a parent company will be analysed adopting an interventionist research approach (Dumay, 2010; Jönsson and Lukka, 2005). As aforementioned, here the analysis is focused on the perspective of one of the parent companies.

The first result that emerge is that a JV can be considered as a value-conversion device as it allows to transform knowledge into financial capital (Quevedo and Roberts, 2005). In fact, Alpha transfers its knowledge to the JV (directly) and to the partner (indirectly) and obtains financial capital (dividends and other economic benefits from the JV). While on studies regarding single organizations this value-conversion phenomenon tends to be difficult to identify and quantify and therefore some argue that it can be just a “grand theory” (Dumay, 2012), in a JV it is visible and it can be visualised in a easier way. Figure 1 provides a representation of this phenomenon studied in Alpha where knowledge flows (K flows) and financial capital flows (FC flows) are indicated.

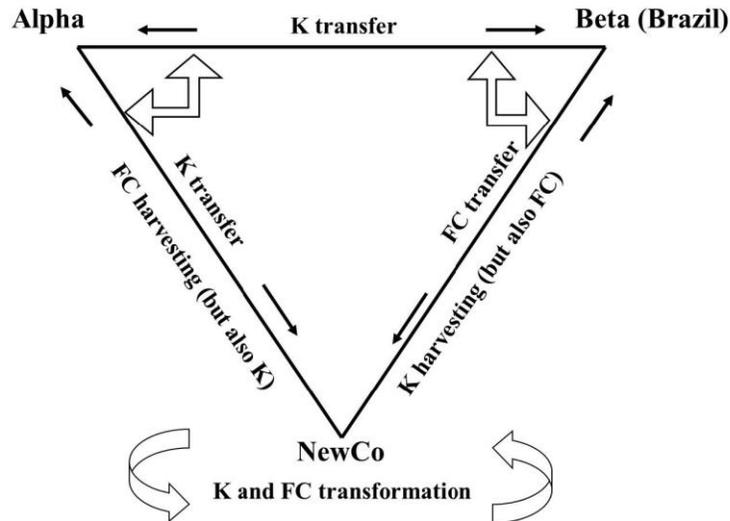


FIG. 1. VALUE-CONVERSION IN JVS.

This result enriches the studies about how knowledge creates value and how it influences the financial performance of a company showing that this process can occur not only within an organization but also between organizations and in this case the link between knowledge and value is not invisible but clearly visible and measurable.

Regarding the role of knowledge measurements within a JV development process, it requires to focus on each of the mentioned phases.

The first phase of a JV development process involves making alliance strategy decisions as well as screening and selecting potential partners. Measuring knowledge is first useful to understand whether the resources, which belong to the potential partners, are useful for achieving the success of the JV. In other words, it is important to understand if and how the knowledge of a company can be combined with the tangible and financial ones of the other company in order to create value. In fact knowledge creates value through interactions and connections and consequently they have to be possible in order to achieve the expected outcomes from the JV. The accounting problem that has to be solved regards how to represent this with numbers. The solution adopted by Alpha was to combine numbers with narratives in order to grasp the phenomenon under investigation as numbers per se were considered to be not understandable.

In the design phase, measuring knowledge is important to define the knowledge transfer flows. In fact it is in this phase that the partners define their capital contribution. Measuring knowledge is helpful to the JV participants to support and complement the financial valuation, which is fundamental in this phase because it allows for the interpretation and comparison of the quali-quantitative aspects of the items transferred by each partner (tangible and intangible assets). Moreover, a set of indicators which shows some of the qualitative and quantitative characteristics of the knowledge can be helpful in rounding out the information on the economic value of the transfer by highlighting some aspects which could otherwise be overlooked in the analysis and which are, instead, relevant to the future performance of the joint venture. For example, information concerning the number of customers, the solidity of the

relationships, the level and type of competences, the updating of software and databases and so forth are essential in order to fully comprehend the reciprocal coherence and adaptability of the resources brought in by the various partners as well as the potential contribution these resources will make to the success of the joint venture.

In the manage phase measuring knowledge allows monitoring the relationships both with the JV and with the other parent company. While there are several studies regarding the financial impacts of a JV on a company, there is only little research on the intangible impacts and on how to account for them. Alpha developed specific indicators for monitoring the knowledge flows from and to the JV and from and to the partner. In other words, these measurements involved not only the knowledge transfer and transformation flows (outflows) but also the harvesting flows (inflows). For example, a variation of the level of the competences of the partners' human capital can be related to the activities jointly developed by the parent companies' and the JV's personnel; an increase in the contents of a parent's database can be due to its integration with the one owned by the JV. Moreover it emerges that in order to monitor alliances it is not enough to focus only on the relational dimension of knowledge (relational capital) (Ordóñez de Pablos, 2004) but it can require a specific analysis also of human capital and structural capital and that specific indicators have to be implemented in addition to the most common knowledge-related ones (Ordóñez de Pablos, 2002).

In all, within a JV development process, knowledge measurements assume different purposes and arise different accounting challenges in dependence of the phase in which the JV is (find, design or manage). Moreover, it emerges that the implementation of specific indicators allows better controlling the knowledge inflows and outflows in order to balance them and to grasp the managerial attention on aspects of the relationships with the JV and the partner that are often overlooked.

Regarding limitations of this study it may be argued that they are related to the methodology adopted. In fact, some may argue that in action research projects the researcher can potentially influence the context under examination and be subjective in the analysis

(Middel, et al., 2006). In this case, even if the researchers took part in the process it was mainly for scientific and methodological support, according to the modest interventionist approach, and therefore the observed reality was not influenced and their perception of it was not altered or too subjective, considering the limited number of activities carried out (Middel, et al., 2006). Another limitation is related to the fact that this study focuses only on one of the actors of a JV and not on all of them. Even if this does not allow having a complete picture of the phenomenon, it allows having more details about the point of view of a parent company.

The findings provided by this research could be useful to those interested in analysing knowledge flows within JVs and the contribution that accounting can offer to visualise, understand and control them. Moreover, this study contributes to the discussions about knowledge dynamics offering not an intra-organizational perspective but an interorganizational one. Finally, this can represent an incentive for developing accounting systems useful to explicitly account for knowledge in JVs.

Future research opportunities can be found in more empirical studies with the ambitions to analyse more in depth how to account for knowledge in JVs and how measurements can influence the development of the JV.

REFERENCES

- [1] Agndal, H. and Nilsson, U. (2009), "Interorganizational cost management in the exchange process", *Management Accounting Research*, Vol. 20 No. 2, pp. 85-101.
- [2] Ancona, D.G., Goodman, P.S., Lawrence, B.S. and Tushman, M.L. (2001a), "Time: A new research lens", *Academy of Management Review*, Vol. 26 No. 4, pp. 645-663.
- [3] Ancona, D.G., Okhuysen, G.A. and Perlow, L.A. (2001b), "Taking time to integrate temporal research", *Academy of Management Review*, Vol. 26 No. 4, pp. 512-529.
- [4] Andriessen, D.G. (2004), *Making sense of intellectual capital*, Butterworth-Heinemann, Burlington, MA.
- [5] Arenas, T. and Lavanderos, L. (2008), "Intellectual capital: Object or process?", *Journal of Intellectual Capital*, Vol. 9 No. 1, pp. 77-85.
- [6] Argyris, C., Putnam, R. and McLain Smith, D. (1985), *Action science: Concepts, methods, and skills for research and intervention*, Jossey-Bass, San Francisco.
- [7] Baden-Fuller, C. and Grant, R.M. (2004), "A Knowledge Accessing Theory of Strategic Alliances", *Journal of Management Studies*, Vol. 1 No. 41, pp. 61-84.
- [8] Barney, J.B. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.
- [9] Berdrow, I. and Lane, H.W. (2003), "International joint-venture: creating value through success-ful knowledge management", *Journal of world business*, Vol. 38 No. pp. 15-30.
- [10] Bleeke, J. and Ernst, D. (1991), "The way to win in cross border alliances", *Harvard Business Review*, Vol. 69 No. 6, pp. 127-135.
- [11] Boeker, C., Guthrie, J. and Cuganesan, S. (2005), "An integrated framework for visualising intellectual capital", *Journal of Intellectual Capital*, Vol. 6 No. 4, pp. 510-527.
- [12] Brännström, D., Catasús, B., Gröjer, J.-E. and Giuliani, M. (2009), "Construction of Intellectual Capital – the case of purchase analysis", *Journal of Human Resource Costing & Accounting*, Vol. 13 No. 1, pp. 61-76.
- [13] Brännström, D. and Giuliani, M. (2009), "Accounting for intellectual capital: A comparative analysis", *VINE: The Journal of Information and Knowledge Management Systems*, Vol. 39 No. 1, pp. 68-79.
- [14] Catasús, B., Errson, S., Gröjer, J.-E. and Wallentin, F.Y. (2007), "What gets measured gets... On indicating, mobilizing and acting", *Accounting, Auditing & Accountability Journal*, Vol. 20 No. 4, pp. 505-521.
- [15] Chaminade, C. and Roberts, H. (2003), "What it means is what it does: A comparative analysis of implementing intellectual capital in Norway and Spain", *European Accounting Review*, Vol. 12 No. 4, pp. 733-751.
- [16] Chiucchi, M.S. (2013), "Measuring and reporting intellectual capital: Lessons learnt from some interventionist research projects", *Journal of Intellectual Capital*, Vol. 14 No. 3, pp. 395-413.
- [17] Coad, A.F. and Cullen, J. (2006), "Inter-organisational cost management: Towards an evolutionary perspective", *Management Accounting Research*, Vol. 17 No. 4, pp. 342–369.
- [18] Coghlan, D. and Brannick, T. (2001), *Doing Action Research in Your Own Organization*, London.
- [19] Cuganesan, S. (2005), "Intellectual capital-in-action and value creation. A case study of knowledge transformation in an innovation process", *Journal of Intellectual Capital*, Vol. 6 No. 3, pp. 357-373.
- [20] Das, T.K. and Teng, B.S. (2000), "A resource-based theory of strategic alliances.", *Journal of Management*, Vol. 26 No. 1, pp. 31-61.
- [21] De Santis, F. and Giuliani, M. (2013), "A look on the other side: Investigating intellectual liabilities", *Journal of Intellectual Capital*, Vol. 14 No. 2, pp. 212-226.
- [22] Dumay, J. (2010), "A critical reflective discourse of an interventionist research project", *Qualitative research in accounting & management*, Vol. 7 No. 1, pp. 46-70.
- [23] Dumay, J. (2012), "Grand theories as barriers to using IC concepts", *Journal of Intellectual Capital*, Vol. 13 No. 1, pp. 4-15.
- [24] Edvinsson, L. (1997), "Developing intellectual capital at Skandia", *Long Range Planning*, Vol. 30 No. 3, pp. 366-373.
- [25] Edvinsson, L. and Malone, M.S. (1997), *Intellectual Capital*, Harper Business, New York.

- [26] European-Union (2006), *RICARDIS: Reporting Intellectual Capital to Augment Research, Development and Innovation in SMEs*, Brussels.
- [27] Fernstrom, L., Pike, S. and Roos, G. (2004), "Understanding the truly value creating resources – the case of a pharmaceutical company", *International Journal of Learning and Intellectual Capital*, Vol. 1 No. 1, pp. 105-120.
- [28] Fincham, R. and Roslender, R. (2003), *The management of intellectual capital and its implications for business reporting*, Research committee of the institute of chartered accountants of Scotland, Edinburgh.
- [29] Geringer, J.M. (1991), "Strategic determinants of partner selection criteria in international joint ventures", *Journal of International Business Studies*, Vol. 1 No. 22, pp. 41-62.
- [30] Giuliani, M. (2009), "Intellectual capital under the temporal lens", *Journal of Intellectual Capital*, Vol. 10 No. 2, pp. 246-259.
- [31] Giuliani, M. (2013), "Not all sunshine and roses: Investigating intellectual liabilities "in action"", *Journal of Intellectual Capital*, Vol. 14 No. 1, pp. 127-144.
- [32] Giuliani, M. (2014), "Investigating intellectual capital dynamics: a field study", *International Journal of Learning and Intellectual Capital*, Vol. 11 No. 1, pp. 20-32.
- [33] Giuliani, M. and Marasca, S. (2011), "Construction and valuation of intellectual capital: A case study", *Journal of Intellectual Capital*, Vol. 12 No. 3, pp. 377-391.
- [34] Green, A. (2006), "The transformation of business knowledge into intangible assets", *Vine*, Vol. 36 No. 1, pp. 27-34.
- [35] Gulati, R. (1999), "Network location and learning: The influence of network resources and firm capabilities on alliance formation", *Strategic Management Journal*, Vol. 20 No. 5, pp. 397-420.
- [36] Guthrie, J., Ricceri, F. and Dumay, J. (2012), "Reflections and projections: A decade of intellectual capital accounting research", *British Accounting Review*, Vol. 44 No. 2, pp. 68-82.
- [37] Harrigan, K.R. (1988), "Strategic Alliances and Partner Asymmetries", in Contractor, F. J. and Lorange, P. (Eds), *Cooperative Strategies in International Business*, Lexington Books, Lexington, MA, pp. 205-226.
- [38] Hensler, D.A. and Huq, F. (2005), "Value creation: knowledge flow, direction, and adaptation", *International Journal of Learning and Intellectual Capital*, Vol. 2 No. 3, pp. 278-287.
- [39] Hyder, A.S. and Eriksson, L.T. (2005), "Success is not enough: The spectacular rise and fall of a strategic alliance between two multinationals", *Industrial marketing management*, Vol. 34 No. 8, pp. 783-796.
- [40] InCaS-Consortium (2008), *InCaS: Intellectual Capital Statement made in Europe*, Brussels.
- [41] Jönsson, S. and Lukka, K. (2005), *Doing interventionist research in management accounting -GRI report 2005:6.*, Gothenburg Research Institute, Göteborg.
- [42] Kaplan, R.S. (1998), "Innovation Action Research: Creating new management theory and practice", *Journal of management accounting research*, Vol. 10 No. 2, pp. 89-118.
- [43] Kasanen, E., Lukka, K. and Siitonen, A. (1993), "The constructive approach in management accounting research", *Journal of Management Accounting Research*, Vol. 5 No. pp. 243-264.
- [44] Kianto, A. (2007), "What do we really mean by the dynamic dimension of intellectual capital?", *International Journal of Learning and Intellectual Capital*, Vol. 4 No. 4, pp. 342-356.
- [45] Kogut, B. (1988), "Joint ventures: Theoretical and empirical perspectives", *Strategic Management Journal*, Vol. 9 No. 4, pp. 319-332.
- [46] Kumar, S. and Seth, A. (1998), "The design of coordination and control mechanisms for managing joint venture-parent relationships", *Strategic Management Journal*, Vol. 19 No. 6, pp. 579-599.
- [47] Labro, E. and Tuomela, T.-S. (2003), "On bringing more action into management accounting research: Process considerations based on two constructive case studies", *European Accounting Review*, Vol. 12 No. 3, pp. 409-442.
- [48] Ling, Y.-H. (2012), "The influence of intellectual capital on global initiatives", *Vine*, Vol. 42 No. 1, pp. 129-144.
- [49] Lukka, K. (2005), "Approaches to case research in management accounting: The nature of empirical intervention and theory linkage", in Jönsson, S. and Mouritsen, J. (Eds), *Accounting in Scandinavia -The northern lights*, Liber & Copenhagen Business School Press, Malmö, pp. 375-399.

- [50] Marr, B. and Chatzkel, J. (2004), "Intellectual capital at the crossroads", *Journal of Intellectual Capital*, Vol. 5 No. 2, pp. 224-229.
- [51] Marr, B., Schiuma, G. and Neely, A. (2004), "The dynamics of value creation: Mapping your intellectual performance drivers", *Journal of Intellectual Capital*, Vol. 5 No. 2, pp. 224-229.
- [52] Marti, J.M.V. (2001), "ICBS–intellectual capital benchmarking system", *Journal of Intellectual Capital*, Vol. 2 No. 2, pp. 148-165.
- [53] Meritum (2002), *Proyecto Meritum: Guidelines for Managing and Reporting Intangibles*, European Commission, Madrid.
- [54] Middel, R., Coghlan, D., Coghlan, P., Brennan, L. and McNichols, T. (2006), "Action research in collaborative improvement", *International Journal of Technology Management*, Vol. 33 No. 1, pp. 67-91.
- [55] Mouritsen, J. (2006), "Problematising intellectual capital research: Ostensive versus performative IC", *Accounting, Auditing & Accountability Journal*, Vol. 19 No. 6, pp. 820-841.
- [56] Mouritsen, J. (2009), "Classification, measurement and the ontology of intellectual capital entities", *Journal of Human Resource Costing & Accounting*, Vol. 13 No. 2, pp. 154-162.
- [57] Mouritsen, J. and Flagstad, K. (2004), "Managing organisational learning and intellectual capital", *International Journal of Learning and Intellectual Capital*, Vol. 1 No. 1, pp. 72-90.
- [58] Mouritsen, J., Hansen, A. and Hansen, C.Ø. (2001a), "Inter-organizational controls and organizational competencies: Episodes around target cost management/functional analysis and open book accounting", *Management Accounting Research*, Vol. 12 No. 2, pp. 221-244.
- [59] Mouritsen, J. and Larsen, H.T. (2005), "The 2nd wave of knowledge management: The management control of knowledge resources through intellectual capital information", *Management Accounting Research*, Vol. 16 No. 3, pp. 371-394.
- [60] Mouritsen, J., Larsen, H.T. and Bukh, P.N.D. (2001b), "Intellectual capital and the 'capable firm': Narrating, visualising and numbering for managing knowledge", *Accounting Organizations and Society*, Vol. 26 No. 7-8, pp. 735-762.
- [61] Ordonez de Pablos, P. (2004), "The importance of relational capital in service industry: the case of the Spanish banking sector", *International Journal of Learning and Intellectual Capital*, Vol. 1 No. 4, pp. 431 -440.
- [62] Ordóñez de Pablos, P. (2002), "Evidence of intellectual capital measurement from Asia, Europe and the Middle East", *Journal of Intellectual Capital*, Vol. 3 No. 2, pp. 287-302.
- [63] Parise, S. and Sasson, L. (2002), "Leveraging knowledge management across strategic alliances", *Ivey Business Journal*, Vol. 66 No. 4, pp. 41-47.
- [64] Park, S.H. and Ungson, G.R. (1997), "The effect of national culture, organizational complementarity, and economic motivation on joint venture dissolution", *Academy of Management Journal*, Vol. 40 No. 2, pp. 279-307.
- [65] Parkhe, A. (1993), "Strategic alliance structuring: A game theoretic and transaction cost examination of interfirm cooperation", *Academy of Management Journal*, Vol. 36 No. 4, pp. 794-829.
- [66] Quevedo, M.I. and Roberts, H. (2005), "Taking your own medicine: The relationship between intellectual capital and innovativeness in the pharmaceutical sector of Peru", paper presented at the 2nd Workshop on "Visualising, Measuring, and Managing Intangibles and Intellectual Capital", Maastricht, the Netherlands, available at: www.eiasm.org, (accessed 20 May 2013).
- [67] Roos, J. (1998), "Exploring the concept of intellectual capital (IC)", *Long Range Planning*, Vol. 31 No. 1, pp. 150-153.
- [68] Schildt, H., Maula, M.V.J. and Keil, T. (2005), "Explorative and exploitative learning from external corporate ventures", *Entrepreneurship Theory & Practice*, Vol. 29 No. 4, pp. 493-515.
- [69] Skoog, M. (2003), "Visualising value creation through the management control of intangibles", *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 487-504.
- [70] Spekman, R.E., Isabella, L.A., MacAvoy, T.C. and Forbes, T.M. (1996), "Creating strategic alliances which endure", *Long Range Planning*, Vol. 29 No. 3, pp. 346-357.
- [71] Stewart, T.A. (1997), *Intellectual Capital*, Bantam Doubleday Dell Publishing Group, New York, NY.

- [72] Sveiby, K.E. (1997), "The Intangible Assets Monitor", *Journal of Human Resource Costing & Accounting*, Vol. 2 No. 1, pp. 73-97.
- [73] Sveiby, K.E. (2004), *Methods for Measuring Intangible Assets*, available at: www.sveiby.com (accessed 2 September 2011).
- [74] Van der Meer-Kooistra, J. and Scapens, R.W. (2008), "The governance of lateral relations between and within organisations", *Management Accounting Research*, Vol. 19 No. 4, pp. 365-384.
- [75] Wernerfelt, B. (1984), "A resource-based view of the firm", *Strategic Management Journal*, Vol. 5 No. 3, pp. 171-180.
- [76] Wiig, M.K. (1997), "Integrating intellectual capital and knowledge management", *Long Range Planning*, Vol. 30 No. 3, pp. 399-405.
- [77] Yin, R.K. (2003), *Case Study Research: Design and Methods*, 3/e, Sage Publications, Newbury Park.
- [78] Zhao, J. and Richards, J. (2012), "Beijing innovation system: the perspective of organisational structure and spatial distribution", *International Journal of Learning and Intellectual Capital*, Vol. 9 No. 4, pp. 413- 428.

End Notes

¹ Co-design is a collaborative development process where the design professionals of the supplier empower, encourage, and guide the professionals of the customers in order to develop solutions for themselves.

**Family Ownership Structure and Firm Value
(Case study on Big-Cap Public Companies)**

*Juniarti, yunie@peter.petra.ac.id
Soeng Soetedjo
Airlangga University*

Family Ownership Structure and Firm Value (Case study on Big-Cap Public Companies)

Abstract

Some previous researches proved the positive association between family ownership and firm value or companies' performance. Contrary with these results, Jiang and Peng (2011) found that Indonesia is one of the country in which family ownership structure has a negative association with firm value. Moreover, Claessen et al. (2000), stated that as of 16.6% of Indonesia's public companies are controlled by a single majority shareholder. Claessen et al. (2000) also stated that higher entrenchment occurred in Indonesia together with Philipina and Thailand. Besides that the low law enforcement and the lowest corruption index in Indonesia (Jiang & Peng 2011), add opportunity to the majority to expropriate the minority. Therefore, this research aims to prove that there is a negative association between family ownership structure and firm value in which negative entrenchment of the majority to minority exists. This study shows that family ownership has a significant negative effect on firm value at significance level of 10%.

Keywords: family ownership structure, firm value, negative entrenchment effect, expropriation

Introduction

Family ownership structure has become as one of the interested topics to be studied, particularly its effects on firm value. Villalonga & Amit (2006), Maury (2006), Jiang & Peng (2011), Barontini & Caprio (2005), Anderson & Reeb (2003), Claessen et.al (2000) are some of the researcher that actively studied this topic. Villalonga & Amit (2006) examined whether family ownership, control and management, influent firm value. By using the company's data-Fortune-500 companies, during the years 1994 to 2000, Villalonga and Amit (2006) found that family ownership creates added value if the founder acts as the CEO or the Chairman of the Board of Commissioners with CEOs recruited from outside.

Maury (2006) conducted a study to examine how the performance of a company controlled by the family (family-control) compared with companies that are not controlled by the family in 1672 non-financial companies in the region of Western Europe. The study ojective was to confirm the existence of control by the family, whether the performance of the family control better than non-family control, given the diversity of the various results of previous studies. The results showed that family-controlled companies is positively associated with higher performance than companies that are not controlled by the family.

Jiang and Peng (2011) observed whether the family ownership and control play an important role in major companies in Asia. since there is still a puzzle regarding the association between the family ownership concentration and control on the one hand and performance on the other, whether good, bad or not related. The study was conducted on 744 large public companies in eight Asian countries. The study was designed in two studies, Study I and Study II. The study II is study I added with a variable level of investor protection. The results of the study I showed that the existence of the family as the CEO is positively related to performance, supported by two countries. i.e Indonesian and Taiwan. The study II exhibited that the presence of the family as the CEO is positively associated with performance in the countries with low level of investor protection. Further, the existence of pyramid ownership on the contrary, was positively related to performance in countries with high levels of investor protection as supported by Hongkong, Malaysia and Singapore, except Indonesia and South Korea.

This result enhanced the previous research and provided better explanation on the diversity of the research related to whether family ownership contributes benefits to the performance of the company. This study successfully demonstrated that the supremacy of law in each country as shown by the level of investor protection is the useful factor to distinguish the presence or absence of a family control to the company's performance. It also entailed that the state is not always neutral in the relationship between family ownership and performance.

Barontini & Lorenzo (2006) searched 675 companies in eleven countries of Continental Europe. The purpose of the study was to investigate the association of ownership structure, firm value and performance. The

study indicated that family ownership structures did not decrease firm value and performance. The existence of company's founder control and the presence of descendant in the board of director were significantly affect firm value and performance. However, if the descendant as CEO, the company's value and performance were not different from non-family corporate ownership. The results are in line with the findings of several previous studies that family ownership is positively related to the performance and firm value. However, care should be taken in interpreting these results due to several factors that have not been anticipated in the test, such as the level of investor protection as conducted by Jiang & Peng (2011).

Anderson and Reeb (2003) examined the relationship between the family as the founding family, ownership and corporate performance in the 403 companies included in the S & P 500, for period 1992 to 1999. The results denoted that the performance of firms with founding family firm is much better than with nonfounding family firm. Based on further analysis, it was found that the relationship between the founding family firm performance is nonlinear, family CEO has better performance as compared to non-family CEO. Overall these results reject the agency hypothesis, in other words, family ownership is an effective ownership structure.

On the other hand Demsetz (1983) argues differently, that concentration of ownership is the result of a decision to maximize the profit made by the shareholders at this time, therefore there is no effect on firm value. Some research supports Demsetz, (Demsetz & Lehn 1985; Himmelberg et.al 1999); Demsetz & Villonga 2001). Claessens et.al (2000), specifically stated that Indonesia is a country with concentrated ownership, 16.6% of the total listed companies as a public company controlled by the family as a sole proprietor. Meanwhile, Jiang & Peng (2011) said that the level of rule of law in Indonesia is relatively low at 3.98 and has the lowest corruption index among the countries in the East Asia region, ie 2.15, implied that the level of investor protection is very weak. In such condition, the family ownership has a big opportunities to expropriate minority shareholders.

It is therefore interesting to study further in the context of Indonesia, where the level of investor protection is weak and corrupt, to prove allegations that family ownership does not have a positive impact on firm value due to agency conflicts between owners actually exist, the latter, this study once wanted to confirm the results research Jiang and Peng (2011), that in Indonesia, the presence of family ownership negatively affect performance

Theoretical review and hypotheses development

Family Ownership and Firm Value

The definition of a family firm or a company extensively owned by family, including (1) the company of one or more family members are as a director or board of directors or a majority shareholder, (2) a company that at least one of its members on the board of commissioners or management, (3) the company's largest voting rights or number of shares owned by the largest families, (4) the company's second generation of one or more family members are as management or directors, and so on (Villalonga & Amit, 2006).

Family firms have advantages compared with non-family companies, which can overcome the agency problem between owners and management. Berle & Mean (1932), Fama & Jensen (1983) supports that the presence of family ownership in the company can resolve agency conflict between owners and management, because the owner has an interest to oversee management to ensure management actions that do not conflict with the interests of owners. On the other hand, a tight family ownership may create agency problems between majority shareholders and minority shareholders (Shleifer & Vishny, 1997).

A number of studies have shown that the market appreciates firms with family ownership (Barontino dan Caprio 2005; Villalonga & Amit 2006; Anderson & Reeb 2003; Ying & Peng 2010 dan Maury 2006). The results of these studies demonstrated that family ownership structure is positively associated with increased firm value. But Anderson & Reeb (2003) noted that it is occurred, especially in countries that have well-established economic regulation. In countries with a low level of transparency, the presence of family ownership actually cause expropriation risk to minority shareholders. Furthermore, Maury (2006) warns that in countries with a low level of transparency, increased profitability can not be transferred into higher firm value.

Leemon & Lins (2001), revealed that companies's Tobins'Q in Asia where expropriation against minority shareholders exist, has declined an average of more than 12% compared to other companies. Meanwhile Claessens,

Djankov, Fan, and Lang (2000) stated that high expropriation occurred in countries such as Indonesia, the Philippines and Thailand, while in the countries of Malaysia, Singapore and Taiwan, there was evidence of expropriation. As it is known that Malaysia, Singapore and Taiwan have a higher level of investor protection than Indonesia, the Philippines and Thailand.

According to Claessens et al. (2000), Indonesia is a country with concentrated ownership, in which 16.6% of the public companies controlled by the family as a sole proprietor. Moreover, with the low level of law, at 3.98 and the lowest position of corruption index among the countries in the East Asia region, i.e 2.15 (Jiang & Peng 2011), also indicated that the level of investor protection in Indonesia is still very weak. It has provided a great opportunity for the majority to expropriate the minority.

In the Indonesian context, where the level of investor protection is weak and corrupt, then the ownership of the family actually increase the risk of expropriation of the minority shareholders or known as the agency conflict II. With the enactment of Law 40 of 2007, the rights of minority shareholders has indeed been accommodated, but these rights don not directly reflect a legal protection of minority shareholders. It is recognized that a perfect legal protection to minority interests according to the principles of good corporate governance is still hard to apply in Indonesia (Priyatna 2012).

There are two approaches used to explain the possible behavior chosen by the controlling shareholder (Siregar, 2007) which is a positive incentive effect (PIE) and negative entrenchment effect (NEE). Although both of these approaches are built by assuming the presence of excess control rights is the difference between control rights and rights to dividends (Jensen and Meckling, 1976; Shleifer & Vishny, 1997), but it is still relevant to explain the possible behavior of family ownership as the holder of significant control. PIE assumed that controlling shareholder has an incentive and huge capacity to observe management intensively, thereby increasing the company's value and lower the cost of equity. On the other hand, NEE argue that controlling shareholders will take advantage of its large capacity to undertake actions for personal gain at the expense of minority shareholders.

Regardless the results of empirical results proved that market appreciates firms with family ownership (Barontino and Caprio 2005; Villalonga & Amit 2006; Anderson & Reeb 2003; Ying & Peng 2010 and Maury 2006), this research is intended to build hypothesis using NEE argumentation. There are some reasons supported this choice, (1) the low level of investor protection in Indonesia (Priyatna 2012; Jiang & Peng 2011), in such condition, the likelihood of the majority shareholder to expropriate minority is very large, (2) according to Anderson & Reeb (2003); Maury (2007) and Jiang & Peng (2011), ownership concentration is only effective to the contries that have established rule of law and counter-productive for un-transparence countries, otherwise decreasing firm value, (3) The results of some of the previos research, Claessens, Djankov, Fan, and Lang (2000), Darmadi (2012) showed that Indonesia as a country with high level of expropriation, also Lemmon & Lins (2000) uncovered that companies Tobis'Q in Asia, where expropriation to the minority exist, have experienced a decreasing of firm value as of 12% and above, compared to other companies; (4) Ownership by a tight family may create agency problems between majority shareholders and minority shareholders (Shleifer & Vishny, 1997). Based on the NEE arguments, then the hypothesis of this study is:

H₁: Family ownership has a negative impact on firm value.

Control Variables

In many studies, the determinant of firm value other than the ownership structure, is the financial performance, company profiles associated with firm size, market share and firm age (Black, Jang & Kim 2006; Black, Carvalho, Khanna, Kim, Yurtoglu 2013; Baek, Kang & Park 2004). Black, Jang & Kim (2006) employed a number of control variables such as market share, leverage and growth as the important determinant of firm value. Wide market share indicates high potential profitability. However, this study uses the change in operating profit, as a control variable, not market share, since operating earnings more represent the real performance of companies than market share. Companies whose profits increased from time to time will be more attractive and positively appreciated by investors. Another control variable is the leverage. High leverage represents a high risk enterprise. Companies with high leverage will be negatively associated with firm value.

Growing companies will be more interesting to investors, some previous studies support a positive association between growth and firm. In contrast to previous studies that use R & D as a proxy for growth (Vilalonga

& Amit 2006, Black, Jang & Kim 2006; Black, Carvalho, Khanna, Kim, Yurtoglu 2013), this study chose sales as a proxy for growth, as sales better describe the actual growth experienced by the company and not just the potential for growth.

Research Methodology

Analysis Model

This study uses regression analysis to examine proposed hypothesis. Regression model is stated as below:

$$TQ_{it} = \beta_0 + \beta_1 FAMONR_{it} + \beta_2 LOBD_{it} + \beta_3 LEV_{it} + \beta_4 SGROWTH_{it} + \varepsilon_{it} \quad (1)$$

- TQ_{it} : Firm value of company i at period t
 $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$: regression coefficient
 $FAMONR_{it}$: family ownership of firm i at period t
 $LOBD_{it}$: Change of operating income of company i at period t
 LEV_{it} : Debt to equity ratio of company i at period t
 $SGROWTH_{it}$: Growth of company i at period t
 ε_{it} : error term

Operational Variables

Variables	Operational definition	Scale
1 Firm value (TQ)	is the value of the business as an ongoing enterprise. Firm value is measured by Tobin's Q, as follow: $\frac{(\text{Total Assets} - \text{Book value of equity}) + \text{Market value of equity}}{\text{Book value of total assets}}$	ratio
2 Family ownership (FAMONR)	company in which one or more family members act as a chief executive or are in a board of directors and as the majority shareholder (Vilalonga & Amit 2006). Majority shareholder limitation percentage is 10%, referring Siregar (2007); Claessens (2000) and La Porta (1999), that the 10% ownership level has been quite effective in controlling the company. Companies that meet the criteria of family members into the director / board of directors and have a share of at least 10%, given the numbers 1 and 0 otherwise.	nominal
3 Change in operating income (LBOD)	Operating income is income from the company's main activity which obtained by subtracting operating income to operating expenses. The formula changes in operating income is as follow: $\frac{\text{Operating profit}_{t-1} + \text{operating profit}_t}{\text{Operating profit}_{t-1}}$ Then, companies that have positive earnings change, given the numbers 1 and 0 if otherwise	nominal
4 Debt to equity ratio (LEV)	Proportion of equity that come from debt . $\frac{\text{Total Debt}}{\text{Total Equity}}$	ratio

5	Growth (SGROWTH)	The increased potential of the company to the next, as measured by growth in sales: $\frac{\text{Net sales}_{t-1} + \text{Net sales}_t}{\text{Net sales}_{t-1}}$
---	-------------------------	---

Sample

Data was obtained from annual reports published in the website Indonesia Stock Exchange (IDX) and the respective company websites, for companies whose annual report data is not found on IDX sites, whereas the database shareholder obtained from the OSIRIS. This study uses all large cap companies (big capitalization) in 2008, 2009, 2010 and 2011 based on documents Fact Book published by the Stock Exchange in the years. The selection of companies with large market capitalization, referring to Anderson and Reeb (2003), Villalonga & Amit (2006) and Jiang & Peng (2011), which uses large companies in their research, in addition, large firms are also more concern to investors and analysts than small companies (Chen & Jian 2006). Data qualified as sample as many as 146 observations, which is obtained from the following process:

The number of companies entering the big group of capitalization in 2008-2011	200
Companies that do not have complete data needed for the study.	(54)
The number of qualified samples to be processed	146

The data were processed with the aid of SPSS software version 19

Result and Discussion

The first classical assumption test on 146 observations, did not meet the four classical assumptions. The test results showed a number of data normality were identified as extreme data (outliers), a total of 37 observations were identified outliers are removed from observation and repeated testing. After dropping all outliers data, the second test against the 105 observations, shows the data meet the assumptions as indicated by multicollinearity VIF of each variable under 10 (appendix 1). There is no autocorrelation can be seen from the residual value of Durbin Watson for 1.289 is higher than the value of α is set at 0.05 (appendix 2). The model has also been free of heteroscedasticity, which can be seen from Spearman unstandardized residual values for all variables were above the $\alpha = 0.05$ level (Appendix 3).

However, the data still can not fully meet the assumptions of normality (Appendix 4). One cause of the data does not meet the normal distribution because there are several variables like FAMONR and LBOD as a dummy variable with a value of 0 and 1, so it can not meet the required normality. However, because the number of observations is large enough (> 30), then theoretically meet the normal distribution of data, other than that based on the data plot (box-plot) the data have shown a normal distribution, and the value of R2 and numbers suitability model (F-test) have shown an increase in compared with the values of these parameters on the initial test.

Profile of 105 observations that have met the classical assumption test and descriptive statistics are presented in Table 1. Panel A shows the sample by industry which dominated by a financial sector that is equal to 26% of the entire sample, and followed by the mining sector as much as 25%. Although the proportion is uneven, but almost all industry groups are represented except property sector, real estate and building. The number of observations is also fairly distributed between the family and non-family ownership.

TABLE 1: SAMPLE PROFILE

Panel A. Industrial Sectors and Ownership Structure

Industrial Sector

Agriculture	11	10%
Mining	25	24%
Basic Industries	13	12%
Others	3	3%
Consumer goods	9	9%
Infrastructure, Utilities & Transportation	12	11%
Finance	26	25%
Investment	6	6%
	<hr/>	
	105	100%

Ownership structure

Family	50	48%
Non-Family	55	52%
	<hr/>	
	105	100%

Panel B. Descriptive Statistic

	N	Minimum	Maximum	Mean	Std. Deviation
TQ	104	0.49	7.82	2.1463	1.4223
FAMONR	105	0	1	0.48	0.502
LBOD	101	0	1	0.69	0.464
LEV	105	0.22	12.05	2.9558	3.3471
SGROWTH	97	-0.21	1.03	0.2164	0.2341
Valid N (listwise)	96				

TQ = (total asset- book value of equity)+ market value of equity scaled by book value of assets; FAMONR = dummy variable of family ownership structure, 1= if family's member is assigned as a Chairman/CEO and has at least 10% of family ownership, 0 otherwise; LBOD = dummy variable of change in operating income, 1 if positive change and 0 otherwise ; LEV = total total debt to total equity; SGROWTH = changes in net sales

Panel B displays a general descriptive statistics for each variable. Regression analysis was performed on 96 valid observations , as presented in Table 1 above, because some variables are not available in full at 105 corresponding number of observations.

The model summary (Table 2), suggesting a correlation (R) are high among all predictor variables (FAMONR, LOBD, LEV, SGROWTH) with the response variable (TQ) of 0.539. Furthermore, the regression model also showed the adjusted R2 is quite high at 25.9% 0.259, it means that the changes of TQ variable can be explained by the four predictor variables together. Goodness regression model to the data can be seen from the F value of 9.296 and significant at $\alpha = 0.01$, respectively

Testing the main hypothesis of this study (Table 2), shows that FAMONR significantly negative effect on the value of the company, at the 10% significance level. It is proven that firms with family ownership is perceived negatively by the market, this result once again consistent with the results of the research Jiang & Peng (2011), Lemmon & Lins (2001), Claessens, Djankov, Fan, and Lang (2000), which found that Indonesia is one of countries with the high-level expropriation where family ownership is negatively related to performance. The majority shareholder entrenchment cause negative effects, which utilizes a large capacity to undertake actions for personal gain at the expense of the minority shareholders. This behavior is possible since the level of investor protection in Indonesia is still very weak (Priyatna 2012, Jiang & Peng 2011).

The dominance of family ownership in large-scale enterprises to be inefficient, as investors are aware of the increased risk of expropriation on these companies which resulted in a decrease in the firm value. The movement of large companies more closely followed by investors than small firms (Chen & Jian 2006). Therefore investors are more sensitive to any possible risks as a result of actions taken by large-scale enterprises, and quickly anticipate such risks in the valuation of the company. These findings, although still preliminary and still need to be further tested its consistency, successfully wrecked the opinion of Demsetz & Lehn (1985), Himmelberg et.al (1999) and Demsetz & Villonga (2001), that the ownership structure is not related to performance and merely the results of the current shareholders's decision to maximize profits.

TABLE 2: ESTIMATION MODEL

Regression model estimation					
$TQ_{it} = \beta_0 + \beta_1 FAMONR_{it} + \beta_2 LBOD_{it} + \beta_3 LEV_{it} + \beta_4 SGROWTH_{it} + \varepsilon_{it}$					
Variable	Predicted sign (+/-)	Coefficient	t-statistic	Sig	
(Constant)		2.476	9.090	.000	
FAMONR	-	-.465	-1.741	.085	*)
LBOD	+	1.041	3.425	.001	***)
LEV	-	-.209	-4.738	.000	***)
SGROWTH	+	-.986	-1.571	.120	
R		.539			
Adjusted R ²		.259			
F-stat		9.296 ***)			
***), *) = each significant, at lthe evel 0.01 dan 0.1					
TQ = (total asset- book value of equity)+ market value of equity scaled by book value of assets; FAMONR = dummy variable of family ownership structure, 1= if family's member is assigned as a Chairman/CEO and has at least 10% of family ownership, 0 otherwise; LBOD = dummy variable of change in operating income, 1 if positive change and 0 otherwise ; LEV = total total debt to total equity; SGROWTH = changes in net sales					

Control variables prove to affect the value of the company, namely the LBOD and LEV. High operating profit performance is perceived positively by investors, significant at $\alpha = 0.01$. The companies with good earnings performance show positively associated with firm value. In contrast, firms with high leverage indicates a high risk and perceived negatively by investors resulting in a decline in the value of the company, supported by the results of the test that the coefficient is significant at $\alpha = LEV 0.001$. Meanwhile, growth which proxied by sales, proved not significantly affect the value of the company.

Conclusion, Implication and Limitation

This study aims to determine the impact of family ownership on firm value in the context of Indonesia, where the level of investor protection is weak and corrupt, and to confirm the results of research Jiang and Peng (2011), rin particular the results of research that in Indonesia, the presence of family ownership negatively affect performance. A number of control variables are used to examine the determinants of the firm value in addition to the family ownership structure. Control variables used in this study is the change in operating income, which represents the risk and leverage growth proxied by changes in sales.

Research shows that family ownership structure negatively affect the firm value, at a significance level of 10%, consistent with Jiang & Peng (2011), Lemmon & Lins (2001), Claessens, Djankov, Fan, and Lang (2000), which found that Indonesia was a country with a high level of expropriation where family ownership was negatively related to performance. The majority shareholder entrenchment cause negative effects, which utilizes a large capacity to undertake actions for personal gain at the expense of minority shareholders. In addition it is evident that the change in operating profit significantly positive effect on firm value, whereas negatively affect leverage on firm value,

respectively at a significance level 1%. While the growth of the company which is proxied by changes in sales, not shown to affect the value of the company.

However, this study does not exercise control over the level of investor protection as done by Gompers et al. (2003), which uses antitakeover index (GIndex) which is based on entrenchment index (EIndex) by Bebchuk et.al (2009). This study only assume the level of protection against expropriation of investors or existing investors based on the results of previous studies. Future research should incorporate control variables investor protection index, in order to obtain more accurate results. Besides, future research could compare with companies that do not include a large company, to gain a broader generalization of the results of the study. Measurement of family ownership structure can be traced by using the ultimate ownership as done by Siregar (2007), not only by ownership imediat as done in this study.

Reference

- [1] Anderson, R., & Reeb, D. (2003). Founding Family, Ownership and Firm Performance: Evidence From S&P 500. *The Journal of Finance* , LVIII (3).
- [2] Baek, J., Kang, J., & Park, K. (2004). Corporate Governance and Firm Value : Evidence from the Korean Financial Crisis. *Journal of Financial Economics* , 71, 265-313.
- [3] Barontini, R., & Caprio, L. (2005). The Effect of Family Control on Firm Value and Performance: Evidence From Continental Europe. *Forthcoming on " European Fianancial Management .*
- [4] Black, B., Jang, H., & Kim, W. (2006). Does Corporate Governance Affect Firm Value? Evidence from Korea. *Journal of Law, Economics & Organization* , 22 (2), 366-412.
- [5] Claessens, S., Djankov, S., & Lang, L. (2000). Expropriation of Minority Shareholders: Evidence from East Asia. *Journal of Financial Economics* , 58, 81-112.
- [6] Claessens, S., Djankov, S., Fan, J., & Lang, L. (2002). Disentangling the Incentive and Entrenchment Effects of Large Shareholdings. *Journal of Finance* , 57, 2741-2771.
- [7] Claessens, S., Djankov, S., Fan, J., & Lang, L. (2000). The Separation of Ownership and Control in East Asia Corporation. *Journal of Financial Economics* , 58, 81-112.
- [8] Darmadi, S. (2013). Retrieved June 3, 2013, from SSRN: <http://ssrn.com/abstract=1999809>
- [9] Demsetz, H. (1983). The Structure of Ownership and The Theory of The Firm. *Journal of Law and Economics* , 26, 375-390.
- [10] Demsetz, H., & Villalonga, B. (2001). Ownership Structure and Coporate Performance. *Journal of Corporate Finance* , 7, 209-233.
- [11] Demsetz, J., & Lehn, K. (1985). The Structure of Corporate Ownership : Causes and Consequences. *Journal of Political Economy* , 93, 1155-1177.
- [12] Ficici, A., & Aibar, C. (2012). Corporate Governance and Firm Value in emerging Markets An Empirical Review Analysis of ADR Issuing Emerging Markets Firm. *Emerging Markets Journal* , 37-51.
- [13] Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate Governance and Equity Prices. *Quarterly Journal of Economics* , 118 (1).
- [14] Himmelberg, C., Hubbard, R., & Palia, D. (1999). Understanding the Determinants of Managerial Ownership and The Link Between Ownership and Performance. *Journal of Corporate Finance* , 53, 353-384.
- [15] Jensen, M., & Meckling, W. (1976). Theory of the Firm : managerial Behavior, Agency Cost and Ownership Structure. *Journal of Law, Economics & Organization* , 3, 305-360.
- [16] Jiang, Y., & Peng, M. (2011). Are Family Ownership and Control in Karge Firms Good, Bad or Irrelevant. *Asia Pacific Journal of Management* , 28, 15-36.
- [17] La Porta, R., Silanes, L., Shleifer, A., & Vishny, R. (2000). Investor Protection and Corporate Governance. *Journal of Financial Economics* , 58, 3-27.
- [18] Lemmon, M., & Lins, K. (2001). Ownership Structure, Corporate Governance and Firm Value: Evidence from the East Asian Financial Crisis. *William Davidson Working Paper no. 393 .*
- [19] Maury, B. (2006). Family Ownership and Firm performance : Empirical Evidence From Western Corporations. *Journal of Corporate Finance* , 12, 321-341.
- [20] Priyatna, F. (2012, Mei 13). Perlindungan Hukum terhadap Pemegang Saham Minoritas Perseoan Terbatas Terbuka.
- [21] Shleifer, A., & Vishny, R. (1997). Survey of Corporate Governance. *Journal of Finance* , 52, 737-783.
- [22] Siregar, B. (2007). Pengaruh Pemisahan Hak Aliran kas dan hak Kontrol Terhadap Deviden. *Simposium Nasional Akuntansi X. Makasar: Universitas Hassanudin .*
- [23] Villalonga, B., & Amit, R. (2006). How do Family Ownership, Control and Management Affect Firm Value. *Journal of Financial Economics* , 80, 385-417.

LAMPIRAN-LAMPIRAN

Lampiran 1. Pengujian Multikolinierita

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.476	.272		9.090	.000		
	FAMONR	-.465	.267	-.158	-1.741	.085	.944	1.059
	LBOD	1.041	.304	.332	3.425	.001	.831	1.203
	LEV	-.209	.044	-.419	-4.738	.000	.997	1.003
	SGROWTH	-.986	.627	-.154	-1.571	.120	.816	1.225

a. Dependent Variable: TQ

Lampiran 2. Pengujian Autokorelasi

	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.539(a)	.290	.259	1.26929	1.289

a Predictors: (Constant), SGROWTH, LEV, FAMONR, LBOD

b Dependent Variable: TQ

Lampiran 3. Pengujian Heteroskedastisitas

Correlations

			FAMONR	LBOD	LEV	SGROWTH	Unstandardized Residual
Spearman's rho	FAMONR	Correlation Coefficient	1.000	.187	.099	.169	-.004
		Sig. (2-tailed)	.	.062	.316	.098	.971
		N	105	101	105	97	96
	LBOD	Correlation Coefficient	.187	1.000	-.071	.435**	.013
		Sig. (2-tailed)	.062	.	.482	.000	.898
		N	101	101	101	97	96
	LEV	Correlation Coefficient	.099	-.071	1.000	.153	-.007
		Sig. (2-tailed)	.316	.482	.	.136	.947
		N	105	101	105	97	96
	SGROWTH	Correlation Coefficient	.169	.435**	.153	1.000	.069
		Sig. (2-tailed)	.098	.000	.136	.	.505
		N	97	97	97	97	96
	Unstandardized Residual	Correlation Coefficient	-.004	.013	-.007	.069	1.000
		Sig. (2-tailed)	.971	.898	.947	.505	.
		N	96	96	96	96	96

** . Correlation is significant at the 0.01 level (2-tailed).

Lampiran 4.Uji normalitas

One-Sample Kolmogorov-Smirnov Test

		FAMONR	LBOD	LEV	SGROWTH	Standardized Residual
N		105	101	105	97	96
Normal Parameters(a,b)	Mean	.48	.69	2.9858	.2164	.0000000
	Std. Deviation	.502	.464	3.34707	.23407	.97872097
Most Extreme Differences	Absolute	.352	.439	.279	.133	.150
	Positive	.352	.254	.279	.133	.150
	Negative	-.328	-.439	-.204	-.053	-.090
Kolmogorov-Smirnov Z		3.612	4.413	2.863	1.305	1.471
Asymp. Sig. (2-tailed)		.000	.000	.000	.066	.026

a Test distribution is Normal.

b Calculated from data.

**The Relationship between Intellectual Capital and Financial Performance of Listed
Companies – The case in Hong Kong**

Stephen C.Y. Li & Anthony C.T. Ku, s.li@cityu.edu.hk

The Relationship between Intellectual Capital and Financial Performance of Listed Companies – The case in Hong Kong

Background to study

When the modern business world is highlighting about value creation over production efficiency, it's inevitable that the focus of the companies would also have a big change. According to Seetharaman, Sooria and Saravanan (2002), the business world has been shifted from an industrial economy to knowledge economy. Basically, the basic resources would include not only natural resource, capital and labour but also knowledge.

The development of intellectual capital has been aroused interests from different parties. However, the value of intellectual capital may be overlooked due to the difficulties to quantify and measure. This paper aims to examine the influence of intellectual capital to companies in Hong Kong.

Intellectual capital, which is an intellectual material defined by Klein and Prusak in 1994 as to produce a higher valued asset by formalisation, capture and leverage. Highlighted by Elliott and Elliott (2012), the distribution of tangible assets and intangible assets in the 1980s was 70%:30%. However, the distribution was getting reversed to 30%:70% in the mid-1990s. Till now, the distribution of physical, financial assets and intangible assets is 5%:95%. The competition has been shifted to the competitive advantages and core competences based on the management of intellectual capital.

As early as Johnson and Kaplan mentioned in 1987, intellectual capital is vital in driving the overall performance of an organization. Bornemann et al. (1999) found that an organization which owns a better intellectual capital would achieve better performance and stronger competitive advantage than an organization which doesn't. Guthrie (2000) mentioned the progress of creating, capturing and disseminating knowledge within organizations cannot be stopped.

Leliaert and Rodov (2002) has been clarified the difficulty of reporting the value of intellectual capital. It's generally expected that a company with a higher degree of effort on creating value with knowledge and innovation assets would have a higher return on assets. .

As the public started concerning how knowledge could add value to an entity and even to the entire value base, this research aims to examine the influence of intellectual capital to companies in Hong Kong. By referencing to some listed companies in Hong Kong, several models could be demonstrated in a readily understandable way. Hopefully, the relationship between intellectual capital and company performance in Hong Kong could be found.

Literature Review

The current change of the economic environment

Sullivan and Sullivan (2000) mentioned as early as in the late 1990s, the business environment faced a dramatic change which the major value of organization had been switched from tangible assets to intangible assets and tangible assets were found to be a relatively little value to the value creation of the organizations.

Guthrie and Petty (1999) suggested that the evolvement of knowledge management missions brought out two missions. First, organizations would concern a continuing quest for them to develop a better system for creating, capturing and disseminating knowledge. Second, there is a growing awareness that how knowledge including marketing expertise could add value to a business and even to the entirely value base.

The introduction to intellectual capital

Intellectual capital, as known as a group of knowledge, is to produce a higher valued asset by formalisation, capture and leverage. It builds a higher level of competitive advantages for the companies. The key stakeholders could therefore be benefited (Klein and Prusak, 1994 and Marr, Schiuma and Neely, 2001).

Guthrie (2000) added his own thought on the above point and stated that intellectual capital is implicated in various aspects. For instance, economic, managerial, sociological and technological developments are all involved.

The implication is in a manner previously unknown and largely unforeseen, which is emphasised in four different areas. The first area is the information society, which the intellectual capital led to the revolution in information technology. The second area is the knowledge based economy, which the intellectual capital remarked the importance of knowledge. The third area is the network society, which the intellectual capital changed the pattern of interpersonal activities. The last area obviously is the organization, which the intellectual capital gives innovation and creativity to the organization. Competitiveness could therefore be enhanced.

The components of intellectual capital

Edvinsson and Malone theorized the idea of intellectual capital in 1997, intellectual capital can generally be split into three categories and various scholars agreed that (Starovic and Marr, 2003; Chen, Cheng and Hwang, 2005; Kok, 2007; Makki, Lodhi and Rahman, 2008; Ahangar, 2011; Maditinos et al, 2011; Fathi, Farahmand and Khorasani, 2013), which are human capital, relational (customer) capital and structural (organizational) capital.

Human capital generally refers to the knowledge, skills and experience of the employees. Organization would lose it if the employees leave. Examples like innovation capacity, creativity, vocational qualification, work-related knowledge and competencies, proactive and reactive abilities, entrepreneurial spirit and changeability (Guthrie, 2000; Starovic and Marr, 2003 and Fathi, Farahmand and Khorasani, 2013). Leibowitz and Wright (1999) suggested several indicators for measuring human capital, such as the replacement and acquisition cost, generalized training and employee development cost, percentage of outsourced personnel resources, development of cross-functional team structures and internal control and ethics.

Relational capital generally refers to all resources linked to the external relationships of the company, which comprises the contribution of human capital and structural capital to the relationship between the organization and its stakeholders. For instance, customer loyalty and satisfaction, company names, distribution channels, business collaborations, licensing agreements, franchising agreements, favourable contracts and negotiating capacity with financial entities (Guthrie, 2000; Starovic and Marr, 2003 and Kok, 2007). Leibowitz and Wright (1999) also suggested several indicators for measuring relational capital, such as creation and development of external relationships, brand loyalties, customer service expectations and market share.

Structural capital generally refers to the non-human resources of knowledge within the organization. In other words, knowledge resources are owned by the organization. It could be classified into intellectual property and infrastructure asset. The former one comprises patents, copyrights and trademarks. The latter one comprises corporate culture, financial relations, information systems, management philosophy, management processes, information systems, which is built to meet the market requirements (Guthrie, 2000; Starovic and Marr, 2003; Kok, 2007 and Fathi, Farahmand and Khorasani, 2013). Leibowitz and Wright (1999) suggested the indicators for measuring structural capital could be divided into process and innovation. The former one includes logistical efficiencies and administrative procedures, whereas the latter one includes renewal and development costs, change in product development and delivery cycle, adoption of industry quality standards and the organisation learning capacity.

The difference between intellectual capital and intangible asset

However, Guthrie (2000); Kok (2007) and Elliott and Elliott (2012) mentioned that users always get confused about the difference between intellectual capital and intangible asset. Guthrie (2000) clarified intangible assets could refer to goodwill, whereas intellectual capital is part of the goodwill. Kok (2007) concerned the difference on the clarified intangible asset as knowledge-based items owned by the company for making future economic profit, whereas intellectual capital as knowledge based equity that may not produce future economic profit directly.

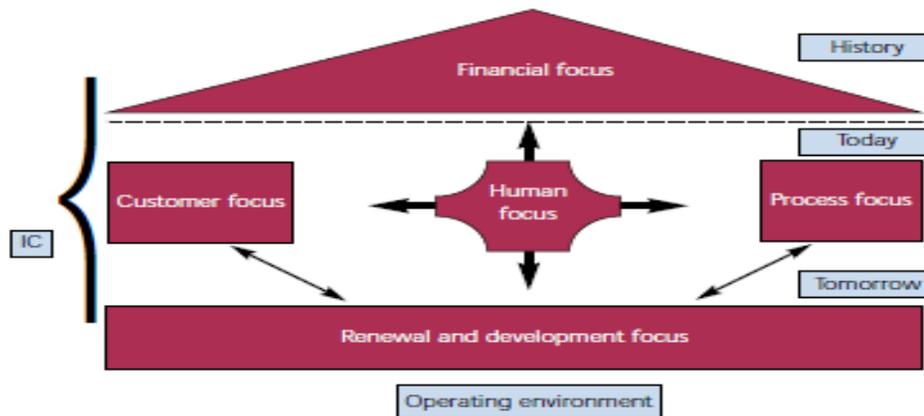
The measurement model of intellectual capital

A recent study (The Management Lab) mentioned Karl-Erik Sveiby was the first one to raise the issue of measuring human capital and study whether there would be accounting practices for it. Through his efforts, The Invisible Balance Sheet was published in 1989 and suggested the measurement of intellectual capital by dividing into relational capital, human capital and structural capital. This model arouses attraction of many Swedish-listed companies and be adopted soon. Furthermore, it was also adopted by Swedish Council of Service Industries as a standard recommendation for publishing annual reports. The milestone of intellectual capital started here.

Skandia navigator and IC rating model

The corporate director of a Swedish insurance company, Skandia AFS, was the first director theorises intangible asset as intellectual capital in 1994/95. Till now, Skandia AFS has provided six intellectual supplements for their own annual report by highlighting how intellectual capital be used as a hidden value for stakeholders' benefit.

According to Sveiby (2010), Leif Edvinsson developed Skandia navigator in 1994 for measuring intellectual capital. By using human focus as the driver of the measuring model, the effect of human focus on financial focus, customer focus, process focus, renewal and development focus and human focus.



VAIC model

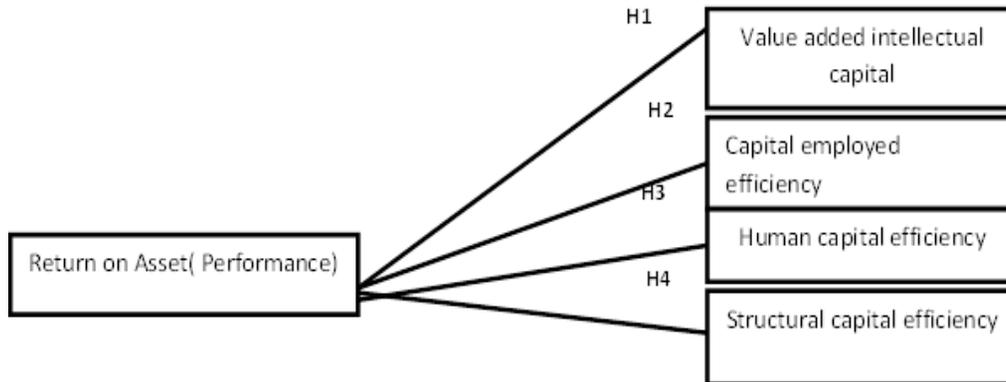
It is generally believed that the more the well-established model and the flourishing area would help the scholars have a further study. Pulic (2000a, b) theorized the market value of the organization is created by capital employed and intellectual capital, whereas the intellectual capital consists of human capital and structural capital. Value Added Intellectual Coefficient (VAIC) is therefore proposed. Under this model, users could find out the contribution of both tangible asset (capital employed) and intangible asset (human capital and structural capital) to the value creation efficiency of the organization. This model quantifies the intellectual capital through measuring the Capital Employed Efficiency (VACA), the Human Capital Efficiency (VAHU) and the Structural Capital Efficiency (STVA), which are the three components of VAIC. It is suggested that a higher value of VAIC generally means the organization value creation has been well managed and fully utilized.

Fathi, Farahmand and Khorasani (2013) evaluated VAIC model as a suitable and approved method for measuring intellectual capital. The data used in the model are mainly the accounting data, which gives users confidence on the observance and the verifiability. Notwithstanding the VAIC model consists of inherent limitation, its intelligibility, reliability and simplicity overcome the shortcoming. Besides, Veltri (2009) summarized the factors that considering VAIC model as the most popular model that being used in studies. First, the value added approach of the model helps organizations for making further analysis as it is consistent with Resource-Based View. Second, considering the application of the model is quite wide, it is suggested that VAIC model is applicable in both macro and micro economy. Thirdly, the data sources of the VAIC model are mainly financial oriented. It is generally believed that the data is reliable as it is audited and published in the financial statement and annual report. It raised users' confidence on the reliability of the measurement result. Apart from the reliability, it is considered that VAIC model enhance the shortcoming of the previous measurement model on intellectual capital. The VAIC model offers objective, quantifiable and quantitative measurement without adding any subjective grading or indicators into the measurement.

Research framework of the Study

The independent variable is Intellectual Value of the company which can be represented either by (1) Value Added Intellectual Capital (2) Capital Employed Efficiency, (3) Human Capital Efficiency, (4) Structural Capital Efficiency. This study is trying to examine whether Intellectual Value of a company will affect the Performance of the Company which can be measured by means of Return on Asset (ROA).

Suggested by Pulic (2000a, b), that a higher value of VAIC generally means the organization value creation has been well managed and fully utilized. This research aims to test the relationship between intellectual capital and company performance in Hong Kong. Therefore, the hypotheses are as follow:



Source: Adjusted from Public (2000a,b)

Variables definition and Measurement

Independent variables

The four components of the VAIC model (Pulic, 2000a, b) would be include in this study, which are:

Value Added Intellectual Coefficient (VAIC), which is the value of the intellectual capital.

Value Added Efficiency of Capital Employed (VACA), which is the value of capital employed efficiency.

Value Added Efficiency of Human Capital (VAHU), which is the value of human capital employed efficiency.

Value Added Efficiency of Structural Capital (STVA), which is the value of structural capital efficiency.

Before performing the calculation of VAIC, VACA, VAHU and STVA, several steps have to be taken (Pulic, 2000a, b). At the very first stage, Value Added (VA) is defined by the following algebraic equation:

$$VA_i = DP_i + Di + Ii + Mi + Ri + Ti + WSi$$

The Value Added of Firm i is calculated by summing up Firm i's depreciation expense (DP_i), dividend (Di), interest expense (Ii), minority interest (Mi), retained profit for the year (Ri), tax expense (Ti) and wages and salaries (WS_i). These information could both be found in the Annual Report of the 47 selected companies.

At the second stage, the components of VAIC have to be calculated before performing the calculations (Pulic, 2000a, b; Maditions et al., 2011; Fathi, Farahmand and Khorasani, 2013):

Capital Employed (CE) = Total assets - intangible assets

Human Capital (HU) = Total expenses spent on staff and employees

Structural Capital (SC) = Value Added - Human Capital

VAIC, VACA, VAHU and STVA could then be computed by using the above results:

$$VAIC = VACA + VAHU + STVA$$

$$VACA = VA / CE$$

$$VAHU = VA / HU$$

$$STVA = SC / VA$$

Dependent variables

It is considered that the dependent variable is the company financial performance (Maditions et al., 2011; Fathi, Farahmand and Khorasani, 2013). The financial performance, Return on Assets (ROA) would be calculated for the testing.

It is suggested by Maditions et al. (2011) that the Return on Assets could be used to show the organization

the relationship between the profitability and its total assets, which helps management measure the earning generated by the assets. It is calculated by the net income divided by the total assets.

Hypothesis Testing (Development of hypotheses)

Hypothesis 1: Companies with a greater value of intellectual capital have a better financial performance.

Hypothesis 2: Companies with a greater value of capital employed efficiency have a better financial performance.

Hypothesis 3: Companies with a greater value of human capital efficiency have a better financial performance.

Hypothesis 4: Companies with a greater value of structural capital efficiency have a better financial performance.

Sample and data selection

The final sample of this study includes 47 Hong Kong companies listed in the Hang Seng Index (HSI). These 47 companies could be classified into four main economic sectors: commerce and industries (22 companies), finance (12 companies), properties (9 companies) and utilities (4 companies). The data extracted record the financial information of those companies during 2010-2013. All of the data could be found from the website of those 47 companies.

The initial target of the investigation was to generate the value of intellectual capital by using the financial information of all companies that listed in the Hang Seng Composite Index Series during 2010-2013. The sample base is then reduced to the 50 constituent stocks listed in the Hang Seng Index, namely the blue chips. Considering there were insufficient information to gather from 3 companies, the final sample size is reduced to 47 companies, which represents 94% of the blue chips of Hang Seng Index.

In this research, VAIC model is used to quantify the value of intellectual capital of the selected companies in the Hang Seng Index. The VAIC model is suggested by different scholars as the most suitable and approved method for measuring intellectual capital (Veltri, 2009; Fathi, Farahmand and Khorasani, 2013).

This research aims to find out how intellectual capital influences the performance of company in Hong Kong. Using VAIC model could solve the difficulties of quantifying intellectual capital. The value of intellectual capital could therefore be calculated and used in the regression model and correlation model to find out the association between intellectual capital and company performance.

Descriptive Statistics

The profile of the 47 selected companies is provided in Table 1 (Appendix 1), which gives readers an idea of the sample. Covering a period of 3 financial years from 2010 to 2013, 22 companies came from commerce and industries sector, 12 companies came from finance sector, 9 companies came from properties sector and the remaining 4 came from public utilities sector.

Tables 2, 3 and 4 describe the minimum, maximum, mean and standard deviation of all variables during the year 2010/2011, 2011/2012, 2012/2013 respectively. Based on the data gathered in Table 2 to Table 4, an average figure is calculated for this 3 years period and being used to generate a descriptive table, Table 5. There are no negative figures in both models. The largest difference appeared in the Table 5 is the VAHU, with the minimum efficiency of 1.19 to the maximum efficiency of 75.27.

Tables 6 to 9 report the minimum, maximum, mean and standard deviation of all variables in Table 5 by sectors. The commerce and industries sector has the largest mean of VAIC at 11.4, whereas the finance sector has the smallest mean of VAIC at 7.99. There are only slight differences between the different sectors' variables except the VAHU. The largest mean of VAHU generated by the properties sector and the smallest mean of VAHU generated by the finance sector are 16.68 and 7.09 respectively.

Data analysis

Only result of the average figure from 2010-2013 would be showed in below, whereas the remaining results would be showed in the appendices.

Correlation analysis

The correlation analysis provides the readers a quick glance of the investigations. Table 10 depicts the result of correlation analysis for all variables of the average figure during 2010-2013. The correlation result is quite different between the dependent variables and independent variables. It is concluded that the return on equity and the market-to-book value ratio are only significantly related with VACA at the 0.05 level, whereas the VAIC are significantly related with VACA at the 0.01 level, VAIC and VAHU at the 0.05 level. There are significant relationship found between the STVA and all other dependent variables.

Hypothesis verification

Hypothesis 1

Hypothesis 1 set to test whether there is any significant relationship between intellectual capital (VAIC) and financial performance. Table 11 shows the result did give evidence to support there is a significant relationship between VAIC and ROA ($p < 0.05$). The coefficient between VAIC and ROA of the average of Years 2010-2013 was 0.348 (at the significant level of 0.017) and the regression result between VAIC and ROA (in average for 3 years) with Adjusted R^2 at 0.121.

Hypothesis 2

The hypothesis 2 set to test out whether there is any significant relationship between capital employed efficiency and financial performance. Table 12 shows the relationship between VACA and ROA in average for 3 years appeared to be highly significant ($p < 0.01$). The coefficient between VACA and ROA of the average of Years 2010-2013 was 0.709 (at the significant level of 0.000) and the regression between VACA and ROA (in average for 3 years) with Adjusted R^2 at 0.491.

Hypothesis 3

The hypothesis 3 set to test out whether there is a significant relationship between human capital efficiency and financial performance. Table 13 shows the result did give evidence to support there was a significant relationship between VAHU and ROA in the average of 2010-2013 was significant ($p < 0.05$). The coefficient between VAHU and ROA of the average of Years 2010-2013 was 0.341 (at the significant level of 0.019) and the regression between VAHU and ROA (in average for 3 years) with Adjusted R^2 at 0.097.

Hypothesis 4

The hypothesis 4 set to test out whether there is a significant relationship between structural capital efficiency and financial performance. The testing result in Table 14 failed to support if the companies have a higher value of STVA would have a higher ROA ($p > 0.05$). The coefficient between VAHU and ROA of the average of Years 2010-2013 was 0.108 and the regression between STVA and ROA (in average for 3 years) with Adjusted R^2 at -0.1.

Main Findings and Recommendations

To conclude, the acceptable result of the hypotheses testing shows the VAIC was positively associated with ROA. The result also shows the relationship between VACA and ROA was significant. With regards to the other two components of VAIC, VAHU is found that positively associated with the ROA.

The objectives to investigate the relationship between intellectual capital and company performance in Hong Kong and to compare the relationship between intellectual capital and company performance with previous researches are achieved by the hypothesis testing. Under the VAIC model, human capital efficiency is generally the greatest effort of the selected companies' development of intellectual capital. It implies the Hong Kong companies are willing to invest on human capital. A larger spending on it could be viewed as an incentive to employees to stay at the companies, in order to prevent the loss of human capital. To a certain extent, it responded the argument of Lewis (1997) and Roselander (1997), to hold a positive view on the spending on human resources and view the spending as an investment could help retain and attract talented people.

Compared to the previous researches, this paper is similar to the finding of Chen, Cheng and Hwang (2005), a research that investigates the relation between the value creation efficiency and financial performance in Taiwan, which had a finding that the effort of developing human capital in Taiwanese companies was the highest in the components of intellectual capital. It's also similar to the finding of Maditinos (2011), which are researches that investigate the impact of intellectual capital on firms' financial performance in Greece.

The acceptable result of the hypotheses testing set before shows the VAIC was positively associated with ROA, which is similar to the research result of Fathi, Farahmand and Khorasani (2013). Moving forward to the components of VAIC, the result shows the relationship between VACA and ROA was significant, which is similar to the research result of Chen, Cheng and Hwang (2005), Fathi, Farahmand and Khorasani (2013). With regards to the other two components of VAIC, VAHU is found that positively associated with the ROA, which is similar to the result of Chen, Cheng and Hwang (2005), Maditinos (2011) and Fathi, Farahmand and Khorasani (2013). Whereas the STVA was found that the relationship with the financial performance was not significant.

It's generally believed that the results would be useful. It is suggested that intellectual capital could be viewed as knowledge based equity that may not produce future economic profit directly (Kok, 2007). It's undeniable that the human capital is vital for value creation. Besides, the results remarked STVA has no relationship with return on asset. The situation is quite similar to that of VAHU. The mean score of STVA was declining from 2010, it would be worse than that of VAHU as it implies the management intended to stop the investment on structural capital. Considering the structural capital is difficult to manage and highly depends on the ability of management, such as patents, copyrights and trademark, corporate culture, management processes and financial relations. It is suggested that the linkage between human capital and structural capital would be very high. Stop investing either human capital or structural capital would affect the performance of other side.

Regarding the result shows the positive correlation between VAIC and ROA, VACA and both dependent variables, VAHU and ROA. Intellectual capital could be valuable to the listed companies in Hong Kong. Develop intellectual capital is almost a must in knowledge-based economy.

Practical implications

The results suggested intellectual capital would be useful and considerable to the management of the listed companies in Hong Kong. Develop intellectual capital is almost a must in knowledge-based economy to raise the competitive advantages.

Limitations

The study period for the sample is set for 2010-2013. An extended period is desirable for testing would raise the generalizability of this study. The current study only covered 3 years for the empirical test. It is recommended to extend the examination period to 10 to 20 years to raise the applicability of the future study.

Financial performance can be measured by means of Market to Book Value, Return on Equity (ROE) and Return on Asset (ROA). This research just based on ROA for financial performance. Furthermore, there are many other factors that lead to the success in company performance other than intellectual capital. It is a study that mainly focuses on the relationship between intellectual capital and company performance, the success or failure have not been fully explained and evaluated.

Future research

Therefore, future research is suggested to widen the research scope. The recommended future research areas are to study the ways to improve the management of intellectual capital; to study other factors that mostly affect the intellectual capital; and to study how the knowledge-based organizations benefited from the development of intellectual capital.

RESULTS OF HYPOTHESES TESTING

Independent Variable	Independent Variables (Company Performance)	Coefficient Beta	Significance Values	Adjusted R ² of Each Ind. Variable with Dep. Variable.
Value Added Intellectual Coefficient (VAIC)	ROA	0.348	0.017	0.101
Capital Employed Efficiency (VACA)	ROA	0.709	0.000	0.491
Human Capital Efficiency (VAHU)	ROA	0.341	0.019	0.097
Structural Capital Efficiency (STVA)	ROA	0.108	0.470	-0.010

whereas $VAIC = VACA + VAHU + STVA$

References

Please contact the author, s.li@cityu.edu.hk for the full list of Tables and References.

The role of intangibles in improving the predictive ability of internal rating systems

*Vincenzo Formisano, v.formisano@eco.unicas.it
Università degli Studi di Cassino e del Lazio Meridionale, Italy*

*Michele Modena, michele.modina@unimol.it
Università degli Studi del Molise, Italy*

*Andrea Quintiliani, andrea.quintiliani@unipegaso.it
Università Telematica Pegaso, Italy*

The role of intangibles in improving the predictive ability of internal rating systems

Abstract

This paper focuses on the use of intangibles as correction factors for an internal rating system (IRS). The purpose of this work is twofold. On the one hand, there is the will to make a real contribution in stimulating banks to consider the analysis of intangibles of firms as a lever to set virtuous rating models, capable of maintaining the predictive ability even in times of economic recession. On the other hand, it seeks to encourage companies to engage in the process of implementation, management and communication of intangible assets. In the current economic scenario, the intangibles contribute significantly to the construction of the competitive positioning of the company. It follows that the soft information have to be appropriately considered in order to consider key aspects of business management (growth potential, competitive capabilities, core competencies, governance model).

Introduction

The adoption of the internal rating system (IRS) is a factor that is reshaping the relationship between the companies and banks. The need of collecting and processing multiple information leads towards greater transparency of information and a more robust assessment of creditworthiness.

However, the observation of reality shows that the introduction of rating systems has increased, rather than diminished, the distance between the bank and the firm. One of the reasons is that the bank rating models assign the judgment of reliability to customers based primarily on quantitative information (i.e. balance sheet data) neglecting qualitative information such as the competitive position of the company and the presence of key competences. The application of automated procedures that read historical data and neglect the uncoded information could lead to an incorrect evaluation of the company's potential, making it more difficult to access credit. The rating system developed internally by banks uses, in fact, an approach Point in Time (PIT) and not Through the Cycle (TTC) to determine the probability of default (PD). The first is a rating system that changes from period to period, while the second produces a judgment of reliability of the borrower that tends to remain stable even in the presence of different economic scenarios.

The use of the PIT methodology feeds the phenomenon of procyclicality that occurs during periods of economic crises. The procyclicality is often accompanied by the credit crunch. Firms in financial difficulties are struggling to cover their needs through bank debt due to the deterioration of their credit rating. The scarce availability of financial resources heightens the criticality of the operational management. In economic context, where there is a prevalence of small and medium enterprises (SMEs), it is necessary to strengthen the role of the qualitative elements (the so-called soft information). Therefore it is crucial to intensify the collection of soft information and to find a way to incorporate them into the rating models.

The strengthening of the qualitative part has no alternatives in the firms' rating evaluation, especially for SMEs. This is due to two reasons: a) the smaller the firm, the lower is the dependence on macroeconomic factors in favor of specific factors of competitiveness (e.g. niche district, segment firms); b) it is necessary to orient the rating in a forward-looking perspective to guide the bank's positioning in the provision of credit and services.

In the long run it is essential to focus on the factors of competitiveness, especially in times of structural fracture. This is because the past has not yet given sufficient information to update the evaluation models. It is therefore necessary a thorough experiential analysis based on qualitative evaluations. However, the transfer of qualitative information into numbers, requires new solutions and methods of analysis. An example of the importance of qualitative information can be found in the study by Simon (2009) which identified the critical success factors of German SMEs. According to the study, German companies that have the best competitive performance are those that focus on product quality, efficiency, on-time delivery, customer proximity and problem-solving. Less important factors in determining the success of a firm appear to be the distribution network, the cooperation with suppliers and the advertising practices. Also the price and patents do not appear to be determining factors.

The paper is structured as follows. The first section is devoted to the review of the literature indicating the three main areas of concern of an internal rating system (mechanics of the models, rating philosophy, procyclicality). The second paragraph explains the reasons behind the choice of a dual track that distinguishes the measuring instruments of credit risk during the screening and the monitoring phases. In this context, it is addressed the issue of the collection and processing of information to estimate the probability of default. The third section focuses on the role that intangibles assets can play in affecting the PD of firms. The final section offers some concluding remarks in order to understand the potential and the opportunities related to the implementation of solid rating models.

Literature Review

The literature on rating systems have been widely developed in recent decades,, ranging from construction methods to uses related to bank management.

An initial conceptual framework of the rating philosophy can be tracked in the working paper of the Basel Committee (BCBS, 1999), which outlined a general scheme for the validation of rating systems. This was followed by a large and diverse literature that has investigated the issues in question from different points of view.

Among the works on the state of the art of the rating systems, it is important to mention the study of Albareto, Benvenuti, Moretti, Pagnini and Rossi (2008) and the survey of the Bank of Italy (2011). The latter refers to the end of 2009 and covers 398 intermediaries (38 medium-large and 360 small banks and cooperative banks) and its subject is the assessment of the factors used by the commercial banks and the dissemination of credit scoring models. With regards to the first point, nearly 90 percent of intermediaries use quantitative information to analyse the borrowers (for example, the reference is to the degree of utilization of credit lines or the frequency of trespassing). Only one third of the banks gives importance to qualitative information and personal knowledge of the customer. The statistical and quantitative methods contribute to a decisive extent on the assessment of credit risk of customers. The tendency to intensify the development of credit scoring models is attributed to the progressive use of new information technologies. While all banks tend to use credit scoring models for the activity of granting and monitoring credit, only few banks adopt an IRS to determine the pricing of a loan.

More generally, the contributions on rating systems that have taken place over time can be traced back to the following areas:

- the mechanics of the rating systems, namely the method of construction of the variables / measures of credit risk and the consequent use in the process of Credit Risk Management;
- the relationship between the rating philosophy of the rating, the size of the bank and the organizational structures;
- the procyclicality of credit ratings and the evolution of the rating systems during the current financial crisis.

Pioneering works in the area were carried out by Friedman and Sandow (2003) on the approaches for estimating the Recovery Rate (RR), by Vasicek (2002) on the estimation of the probability of loss of a loan portfolio and by Altman, Resti and Sironi (2002) on the interdependencies between RR and default rates and their potential effect on the procyclicality of capital ratio.

With regard to the relationship between the rating philosophy (statistical or judgmental approach), size and organizational choices of the bank, the literature has largely debated, arguing in relation to the relational or transactional approach used by the intermediary, to its size and to the concepts of functional and operative distance. The literature is unanimous in stressing that the adoption of credit scoring techniques is influenced both by the size of the intermediaries and their organizational structure. Generally, the larger banks have more human, financial and technological resources to invest in innovation techniques (including the measurement of credit risk) and have the ability to share the cost of investments on a larger loan portfolio. However, they present a higher number of issues related to the distance, as well as difficulties in the transmission of information that are not encoded within the structure, in the selection and monitoring of loans and in the formulation of proper incentives for local officials. The distance from the borrower may then reduce the weight of the soft information.

With regard to the systems of delegation, recent evidence on a sample of 400 Italian banks show that during the most acute crisis of 2006-2009, the role of local managers in determining the granting of loans to SMEs has weakened, as it decreased the index of decision-making autonomy. However, a valid IRS must act as the glue between

the mission and the strategic approach of the bank on the individual segments of the credit market. since the asset choice of the rating system is one of the most important components in various market segments.

The international financial crisis has highlighted some critical issues regarding the technical aspects of the rating systems as well as their operational use, especially with reference to the impact on the relationship between bank and enterprise. If bank's capital requirements depend on the credit rating, the increase in the minimum capital requirement for banks determines higher default rates and more frequent deterioration of ratings. Since it is more difficult to raise new equity during a recession, banks end up granting less credit to the economy in order to maintain the ratio between capital and assets at risk. This exposes companies to further financial stress, accentuating the recession even more.

Numerous empirical tests are focused on the procyclicality of the rating system. Catarineu-Rabell, Jackson and Tsomocos (2005) recognize the greater procyclicality of Basel 2 through a theoretical model of general equilibrium and examine the implications of stable rating models in comparison to cyclical or counter-cyclical patterns. Salis and Turri (2009) showed that in the current market turmoil the rating models that assume the independence between the PD and LGD appear no longer adequate to capture the actual risk of the borrower and the one related to the borrowing, leading to an underestimation of the necessary capital in adverse macro-economic conditions and to accentuate the procyclical effects already inherent in the regulatory models.

De Laurentis and Maino (2010) point out that the current methodological approach emphasizes the cyclical responsiveness of an internal rating system. Many IRSs still use a time-frame of one year. This horizon limits the length of time of validity and makes the evaluation of the customer relationship more unstable. The cyclical nature of credit ratings can be measured with reference to the volatility of default rating. A fully cyclic model will be able to perfectly predict the default rates through migration and it will follow the fluctuations over time, making them stable around the PD assigned to different classes.

Cannata (2011) highlights the cyclical effect of the crisis on a representative sample of the entire Italian banking system. Such evidence refers to the evolution observed in capital ratios, in risk weighted assets (RWA), in the default rates during the period 2008-2009. The author shows that the exposures treated with the IRS approach resulted in an increase in RWA (with particular reference to performing counterparties) and, therefore, an increase in the regulatory minimum capital.

Some of the measures introduced by the new Basel 3 regulations and, in particular, the counter-cyclical measures are born as a result of the renewed concern about the effect of the current procyclical capital rules induced by the recent economic crisis and the nature of the rating systems. The new counter-cyclical instruments identified by Basel 3 are designed to strengthen the resilience of banks in a crisis, to neutralize the level of cyclicity implied in ratings models and to ensure fair treatment between banks that adopt models with different philosophies.

Rating systems: a double track for custody and monitoring

In order to estimate the probability of default, it is important to take into account what information to consider and how to process them. Automated systems are the most used for the evaluation of retail customers: each information available is given a determined weight on the basis of a statistical model. The possible qualitative variables are converted into numerical values and then inserted in the statistical models that seek to understand the relevance to the estimation of default, based on the characteristics of loans in default in the past. It may also happen that the judgment emerged from the scoring systems is modified by the analyst, as they deemed suitable to represent the level of counterparty risk on the basis of qualitative inputs that the scoring model fails to capture.

As a first approximation, the bank tends to prefer the use of automated approaches when profit margins related to operations in certain customer segments do not advise to withstand high costs of investigation and monitoring for single-payer. The reliability of the statistical techniques tends to decrease with the size of borrowers. In such cases, the mechanisms of scoring is joined, in a more or less intense measure, by analysis derivable from the work of credit managers. Intermediaries tend to recognize a greater or lesser importance to the single information areas or to find a more or less extended set of information depending on the characteristics of the customers examined

and the choice in the portfolio segmentation. In this context the overriding mechanism operates. The judgment on the debtor could be modified by an operator through discretionary deviations, albeit limited and motivated.

The attention to the assessment of the creditworthiness of the company should not be limited at the time of the initial financing relationship, but it should embrace the whole relationship. Once the rating is determined, this has to be regularly updated so that it can deliver an actual risk level. It is therefore necessary to check the possible changes in the risk profile. These activities are typical of the phases of monitoring in order to understand the changes that the economic and financial situation of the debtor may undergo from time to time.

The different ratio underlying the two different moments of the credit relationship (screening and monitoring) raises the problem of distinguishing the tools of risk measurement, so as to enhance their use according to the specific purposes that a bank intends to carry out in a phase rather than in another. The monitoring tool tends to brand themselves to a strict adherence to counterparty risk and a strong sensitivity to the economic cycle, resulting in limited foresight to seize the debtor's prospects over the short term. The screening model must be broad and has to be able to contribute to the achievement of objectives such as those related to the process of determining the pricing and capital allocation. Function of multiple objective parameters (including the capital allocated to cover the credit risk, the costs of collection and operating costs), the price of a loan must be adjusted to take into account several factors, such as the relationship with the customer and market competitive pressure. In formulating the pricing policies, the banks have to confront with the purpose of the risk-adjusted returns, the target markets and the increase in lending volumes.

Inevitably the two models have to be guided by temporal logics and different content. The monitoring tool has a time horizon of twelve months and include information essentially credit relationship quality indicators. The analysis tends to reflect the current condition of the debtor, neglecting the potential of the company in the medium term and thus its ability to create value. The information used have self-determined character: more credit a bank grants, the less likely the tension of the credit lines. The myopia of evaluations, along with the instability of the estimate of the risk and the danger of procyclicality, prevents the Point-in-Time monitoring tool to be fully functional to the decision of granting or reviewing a loan.

For this purpose it is necessary to refer to a robust PD based on a complete set of information, able to fully ensure the process of direct knowledge of the company and its real opportunities for growth and profitability in the long term. It is therefore necessary to conduct analysis that enhance the contribution of soft information, retrievable from the ongoing confrontation between the company and the relationship manager, to the benefit of a greater predictive ability of the risk estimate. This is because the intangible assets are crucial for the reporting of specific risk factors, which are essential in the evaluation of SMEs.

The orientation versus a forward looking PD requires to grasp the long-run fundamentals of firms, especially when they are characterized by a small size and when the credit manager gives strategic importance to the relationship with the customers. A more TTC model is therefore a prerequisite for the successful integration of rating systems in decision-making and in the management of banking operations. The use of an IRS should extend beyond the granting of credit and its monitoring since it can affect the pricing techniques, the calculation of economic capital and the strategic plan of a bank.

The validity of the choice to use different approaches to credit risk management is also reflected in the operational practices of the Italian banking system. Analyzing the experiences of the 20 Italian banking groups listed at the end of 2011 with regard to the measurement and monitoring of credit risk, Altieri Pignalosa, Birindelli, Ferretti, La Ganga and Porretta (2012) show that in the phase of the measurement, the range of the rating models shows increasing levels of complexity and tend to have more judgmental connotations with the increasing importance of the counterparty. In general, there is a tendency to segment the portfolio companies on the basis of certain variables (size/revenue/funding entity, legal status, geographic area, sector of activity) which, when properly combined, allow to obtain homogeneous clusters for risk profile. In order to estimate the rating of each model it is necessary to consider the sources of information of a quantitative nature (balance sheet data, credit indicators), while qualitative information is used by relationship managers to change the rating (override). In the process of monitoring, early warning systems tend to focus on the analysis of the performance reports (daily check of trespassing, monthly monitoring of overdue unpaid invoices, quarterly reporting of pre-existing trespassing), on the loss of value of the collateral guarantees (to check the adequacy of the pledges and mortgages) as well as the negative returns of the system (verification of the anomalies on the return flows of the Bank of Italy).

Relevant intangibles in the process of assessing the creditworthiness

Over time, various analytical tools have been developed to measure and value the role of intangibles. Among others we report the analysis of the breakeven point in a strategic perspective, the pattern of the life cycle of the product and the one of the company, the learning curve and the cost curve of the industry, the Boston Consulting Group matrix, the General Electric/McKinsey matrix, the Ansoff matrix, the models proposed by Porter (i.e. five forces, value chain). Each of these models tries to extract the crucial variables to define the intangibles of firms.

The more mature attempt to systematically connect the business strategy with the economic and financial performance of the company has been accomplished by the program PIMS - Profit Impact of Market Strategies (Buzzell and Gale, 1987). The PIMS approach identifies a causal hierarchy ranging from three areas of structural factors (which characterize the business enterprise in a sustainable and indispensable way) to the financial results achieved. The project evaluates the impact of strategic variables (such as the concentration and diversity of supply, the strength of competition, the intensity of the investment, the product and service quality, the labor productivity) on performance and debt sustainability. In particular, the most significant variables are the attractiveness of the sector (defined as growth rate, concentration of suppliers and incidence of external purchases on production and international trade), the absolute and relative market share (compared with one of the major competitors), the quality and product differentiation, the level of vertical integration (added value of production) and capital intensity (mainly the rotation of fixed investment and working capital).

In order to strengthen the predictive content, an internal rating system needs to grasp the intangible resources that represent the lever on which the company builds its competitive advantage. Intangibles, entities without intrinsic tangible content, constitute a distinctive peculiarity of the firm. The condition of distinction stems from the availability of innovative, unique and long lasting factors.

The qualitative analysis incorporated into an IRS must thus enhance the role that the intangible assets of the company can play in order to properly evaluate the obligor's probability of default. The objective is to assess the entrepreneurial and managerial to drive the business by adopting strategic and operational decisions consistent with the firm's market and its resources. The evaluation of the quality profile is based on three main dimensions: the attractiveness of the industry, the competitive position of the company and the analysis of the strengths of the business organization.

The attractiveness of the sector depends on the environment in which it operates. The variables to be analyzed are the size of the market, its rate of growth, the profit margins, the degree of differentiation and concentration of the industry, the intensity of competition, the presence of barriers to entry, the bargaining power of customers and suppliers, the degree of risk and uncertainty and the general conditions of the external environment. These elements must be taken into account to define the characteristics of the macroeconomic environment, social and political as well as the historical and prospective trends in the industry. The attractiveness of the sector should be assessed taking into account the local and international competitive pressures and the pace of technological change.

Competitive positioning is the result that comes from interacting with multiple forces: the relative share of the market, the degree of sectoral diversification, the ability to deal with rivals for breadth and quality of the range of product/service, the relative position of cost, the distribution capacity, the presence in foreign markets, the degree of impact of the new products and the plant utilization, the company's image, the ability to negotiate with suppliers, the concentration of customers and their satisfaction. To operate successfully in the globalized economy, firms need to act on the competitive positioning by moving on a path characterized by the following guidelines: a) innovation: the continuous investment in process and product support the ability to compete of the Italian manufacturing sector; b) internationalization: the degree of openness to foreign markets is an indicator of the quality of the companies; c) proper sizing: competition in the global market requires firms to overcome some of the problems related to the small size (e.g. limited availability for investment in innovation and internationalization).

If these are the guidelines, it is also necessary to know what are the discriminating features of the company or its distinctive competencies on which to build competitive advantage. These competences include corporate governance rules, the know-how of the management, willingness to invest in research and development, the use of

technology, the degree of automation of the processes, the presence of quality systems and planning processes, the degree of dissemination of business knowledge, the quality of the organizational structure, the business climate. Below are recalled some of the variables mentioned above by offering some points for analysis.

The importance of corporate governance as a key competence increases as a function of the size and complexity of the corporate structure. Because a good corporate governance is a factor of competitiveness, variables such as the ownership structure, the statutory rules, the assessment of internal control systems, the planning and control management are relevant aspects as determinants of firms' default.

The know-how is the set of knowledge, procedures and methodologies which constitute the intellectual assets of the company. Although it is not always protected by a legal recognition, the know how of a company is kept confidential. Typical examples are represented by not patented information technology, hardly known and available outside of the context in which they were made. The presence of innovative knowledge allows the firm to maintain a privileged position in the market (at least for a predetermined period of time), including not only the scientific heritage pertaining to the ideas and technological innovations, but also to the personal knowledge acquired by individuals within the company. Covered by the know-how is also the knowledge closely related to personal skills and abilities, which can not be sold to third parties.

Investment in research and development, innovations in quality and in the range of products/services, the company's image, the procedural improvements on the operational and administrative control are often influential elements in the evaluation of the quality of firms in light of the dynamic environment in which they operate.

The presence of quality systems, control and planning is considered to be decisive for the success of a business. They allow firms to drive the company in a modern and attentive way. For example, a proper planning activity allows the formulation of economic and financial projections through a description of the assumptions and operational strategies. Indeed, it is essential to govern the company through a careful process of prediction. In particular, the business plan is a document that sets out in a systematic way the strategic directions of the company, by covering the main economic and financial objectives and actions that will be undertaken to enable the achievement of strategic goals.

In order to strengthen the validity of an IRS, it is necessary that its quantitative component is integrated by a qualitative interpretation of a firm and its potential. Building on this assumption, the rating models that are mainly based on hard information must broaden the horizon by appropriately considering the set of variables able to properly evaluate the attractiveness of the industry in which the company operates, its competitive position and its core competencies.

Concluding remarks

The internal rating system is one of the most far-reaching financial innovations of recent years, which has affected the entire loan process from assessment of the creditworthiness of the debtors to the pricing up to the management of complex portfolios of bank loans. Given the spread of the rating, the investment on the quality and completeness of the rating models plays a fundamental role to avoid misleading uses of the instrument and to further popularize its strengths.

These latter considerations are even more relevant in the current economic phase characterized by a deep fracture in the competitive dynamics. It is so appropriate to carry out an audit of the use of rating systems in order to understand whether the opinions on the creditworthiness of companies are sufficiently detailed to assess their actual ability to compete. At the same time, it is necessary to grasp if the IRS is sufficiently sighted in driving efficiency with the relationships between lenders and borrowers especially in an economic phase, such as the present one, in which the process of granting credit based on the rating has been facing difficulties higher than in a normal economic cycle.

The new environment requires a rethinking of the instrument as well as the explanation of the rating philosophy. The focus on the critical elements and the definition of the limits and potential use of the credit rating is a fundamental step to make sure that the spread of the rating represents a contribution to create value for all stakeholders and to promote the long-term content of the relationship between banks and firms.

In this context, the appropriate consideration of intangibles of the company is critical for two reasons. The first is the identification of the factors that should guide the design of an internal rating system, understood as a set of integrated tools, processes and procedures with different mix of automation and human judgment. The second is the need to provide guidance to the functional improvement of the methods of rating assignment, with particular reference to SMEs, which are a heterogeneous cluster. SMEs are different from each other as they operate in socio-economic and territorial composites, are often articulated in networks, have different operational and management maturity, have different intensities of capital and labor as well as diverse organizational, technical and legal complexity.

In addition to the assessment of the quantitative aspects of the enterprise, the attention must focus on the ability to incorporate in an IRS the intangibles of a company. In this sense, the rating must exceed the simple assignment of a score to understand the competitive advantage of a firm that is the foundation of its prospective value (and, conversely, of its risk). The revision and improvement of the rating process are a necessary step to ensure that the improvement of of bank-enterprise relationship favors the presence of a financial system capable of supporting the growth of companies and support them in difficult times, factor essential to the success of economic systems.

References

- [1] Albareto, G., Benvenuti, M., Moretti, S., Pagnini, M., Rossi P. (2008). L'organizzazione dell'attività creditizia e l'utilizzo di tecniche di scoring nel sistema bancario italiano: risultati di un'indagine campionaria. *Questioni di Economia e Finanza*, Banca d'Italia, 12, Aprile.
- [2] Altieri Pignalosa, A., Birindelli, G., Ferretti, P., La Ganga, P., Porretta, P. (2012). Il rating nel processo di Credit Risk Management. *Sinergie – Rapporti di Ricerca*, 36, 41-121.
- [3] Altman, E.I., Resti, A., Sironi, A. (2002). The link between Default and Recovery Rates: effects on the procyclicality of regulatory capital ratios. *BIS. WP 113*, July.
- [4] Banca d'Italia (2011). *Economie regionali. L'economia delle regioni italiane. Dinamiche recenti e aspetti strutturali*. Roma, Novembre.
- [5] Basel Committee on Banking Supervision, BCBS (1999). *Credit Risk modelling: Current practice and applications*.
- [6] Buzzell, R. D., Gale B. T. (1987). *The PIMS principles*. The Free Press.
- [7] Cannata, F. (2011), *The myths and truths about Basel II cyclicality*. riskmagazine.net.
- [8] Catarineu-Rabell, E., Jackson, P., Tsomocos, D. (2005). Procyclicality and the new Basel Accord-Bank's choice of loan rating system. *Economic Theory*, 26, 3.
- [9] De Laurentis, G., Maino, R. (2010). I rating interni durante e dopo la crisi: rapporti banca-impresa, vincoli regolamentari e modelli di business. *Bancaria*, 1.
- [10] Friedman C., Sandow S. (2003), *Recovery Rates of Defaulted Debt: A Maximum Expected Utility Approach*, Standard and Poor's, Risk Solution Group, June, 12.
- [11] Salis, F., Turri, A. (2009). Loss given default: verso approcci flessibili normativamente coerenti. *Bancaria*, 10.
- [12] Simon, H. (2009). *Hidden Champions of the 21st Century*. Springer Verlag. London and New York.
- [13] Vasicek, O.A. (2002). *Loan Portfolio Value*. Risk. December.

Is it Time for Internally Generated Intangible Assets to be Recognized in Financial Statements of U.S. Companies?

Ramesh Narasimhan, narasimhanr@mail.montclair.edu, Montclair State University, USA
Shifei Chung, chung@rowan.edu, Rowan University, USA

Is it Time for Internally Generated Intangible Assets to be Recognized in Financial Statements of U.S. Companies?

Abstract

Since the dawn of the Information Age, which has dramatic differences from the previous Industrial Revolution Age, valuation issues of intangible assets have generated many conceptual issues for accounting standard setters. The easiest way to deal with this is to ignore internally-generated intangible assets and only recognize these assets when externally obtained. However, the accounting profession itself is increasingly aware of the necessity to confront the knowledge-driven economy and recognizes that reporting systems have to be developed that reflect the increasing importance intangible asset have to organizations. In this paper we examine the issues surrounding the potential for reporting on internally generated intangible assets and the successful outcomes that could possibly result from such reporting.

Introduction

Intellectual property (IP) and intangible asset (IA) issues abound throughout the business world, touching nearly all aspects of a company, from product development to human capital, including staff functions such as legal, accounting, finance and line operations such as R&D, marketing and general management. This wide diversity of IP applications and stakeholders is a leading contributor to the complexity of managing IP, as each field has its own legal, regulatory and practitioner history. One aspect all these disciplines have in common is the need for valuation. The accounting profession itself is increasingly aware of the necessity to confront the knowledge-driven economy and recognizes that reporting systems have to be developed that reflect the increasing importance IP has. As of now only externally acquired IA are reported in financial statements and those elements that do not lend themselves to an independent valuation (human capital for instance) get lumped together in the recognition of goodwill, which accounting is controversial as well. The purpose of this paper is to examine the issues surrounding the potential for reporting on internally generated intangible assets and the successful outcomes that could possibly result from such reporting.

Standard-setters have reacted to problems that have occurred in reporting rather than anticipating areas where problems could occur to be proactive in enacting rules to deal with them. In the last few decades the area of intangible assets has been dominated by the discussion of accounting for goodwill alone. With the elimination of the pooling-of-interest method of accounting for mergers and acquisitions and the mandatory recognition of goodwill and the subsequent elimination of the requirement to amortize goodwill, interest in the area valuation of intangibles has been primarily focused on the accounting for goodwill. While goodwill may constitute a good portion of intangibles, for some companies other intangibles do amount to a significant item. As valuation issues of the other assets, such as investments, have been addressed with recent pronouncements, primarily to curb companies from overstating these items, it appears that the only area not being addressed is intangibles other than goodwill.

Literature Review

The issue of accounting for intangibles has been considered in earlier papers but most previous studies concentrate on definitions or disclosures not on valuation issues. Even at the turn of the century, researchers such as Holman and Kahn (2000) and Lev (2001) were recommending that the standard-setters allow companies to measure and disclose some of the intangible assets that were not allowed to be recognized such as intellectual capital and brand values. Quick & Goldschmid (2002) made recommendations to economists on how they could be useful to management in providing assistance in valuing these new intangible assets when allowed. Kaufmann and Schneider (2004) in their synthesis of the work done in the area of intangibles noted the differences in definitions and measurements world-wide and recommended that research be done that was more focused at giving companies tools to manage intangibles. Kristandl and Bontis (2007) reviewed extant literature and offered a definition for intangibles modeled on a resource-based view. Esquivel & Gornik-Tomaszewski, (2007) analyzed the then-issued SFAS 157 on fair value measurements

and proposed that the standard would increase consistency and comparability in impairment testing of intangibles. However they did not empirically test this proposition. White (2007) examined the use of intangibles in libraries and noted the lack of consensus in the definition and valuation of intangibles.

Basu & Waymire (2008) argued that intangibles usually were inseparable from tangible assets or other intangibles and hence it would be futile to try to value each individual intangible item. Skinner (2008) examined the recommendations for expanded disclosures and the recognition of additional intangibles and argued that these were not necessary, in his opinion, as the market seemed to already incorporate these items in their valuation of the companies' securities. Elwin (2008) in his discussion of Skinner's paper supported the conclusions drawn by Skinner and also concluded that changes in accounting for intangibles were not needed at that moment. Lev (2008), however, in his rejoinder disagreed with the position taken by Skinner and concluded that changes in the accounting for intangibles were quite necessary for undervaluation to not occur in companies' financial statements. In his reply, Skinner (2008) basically disagreed with the position taken by Lev.

Wyatt (2008) examined previous studies on the issue of value-relevance of financial and non-financial information in accounting for intangibles. She concluded that there might be a gap in the reporting of separate line items of expenditures on intangibles and recommended that standard-setters consider giving management more discretion in reporting value-relevant information on intangibles. Roslender (2009) provided an overview of the development of approaches to measuring and reporting intangibles and made recommendations for using the same method for recognizing intellectual capital. Arvidsson (2011) surveyed investor-relations managers at the largest companies listed in the Stockholm Stock Exchange and found that there was an increasing focus on non-financial information in the market and that voluntary disclosures compensate for any deficiencies of financial statements to disclose intangibles. Dumitrescu (2012) examined a sample of public companies in the Romania listed on the Bucharest Stock Exchange and concluded that companies do not place enough importance on disclosing information about intangible assets either due to their lack of awareness or the difficulty in measuring the value of intangible assets.

Measurement Issues

As the above review of the literature indicates, while the issue of disclosures of intangible assets has been dominant in accounting journals, not many recommendations have been made for valuation of these assets, especially when they are internally generated. The FASB does not allow the recognition and valuation of internally generated intangible assets due to the uncertainties involved in measuring such assets. These uncertainties may lead to manipulation of the reported financial position of the companies when such assets are over-valued. However, not recognizing these assets, especially as the nature of assets in the transition from manufacturing-based economies to the information age has changed drastically, clearly understates organizations' net assets in the U.S. marketplace. Two issues that result for the difficulty in valuing internally generated intangible assets are the problem of allocating costs incurred and the issue of separating these assets from others. Research & Development (R&D) costs are an example of the first issue. Due to the uncertainty of the results related to R&D costs, U.S. standard setters have determined that rather than choosing other methods (successful/unsuccessful or capitalize/amortize) which could allow some manipulation of the costs by companies, the only acceptable alternative is to expense these costs as companies incur them. This results in understating of income in the development years for companies incurring R&D costs, shifting this income to periods when the results of the R&D activities are actually realized. Two problems could occur with this approach. One is that companies may defer R&D activities in periods when they need to increase income, sacrificing the future for the present, which may threaten their competitive position. Secondly, pricing decisions made for products resulting from successful R&D activities could be impacted and lead to issues in the market place. If the prices are perceived to be high as compared to the production and distribution costs, there could be an adverse reaction in the market place and in some cases, especially for pharmaceutical products, may also lead to political pressures. In some cases companies may misprice their products, lowering of the sales price charged due to the R&D costs having been charged off to income in earlier periods which again may impact future periods.

The second issue of valuing internally generated intangible assets concerns the fact that the activities that result in these assets may also create others as also result in revenues in the period. Activities related to knowledge

creation and intellectual property (IP) fall into this category. Due to the difficulty in allocating costs, the standard setters prefer to expense all costs to revenues in the period. Any resultant intangible assets are thus not recognized in the period that they are created which also means they go unrecognized and understate the financial position of the companies until these are sold off to other companies. Most of these assets become part of the goodwill that is accounted for by the acquiring company. In the past goodwill was required to be amortized mandatorily but the FASB revised the standard to allow companies to carry these amounts indefinitely. Companies are required to assess if any of these amounts are impaired in each year and only write off these impaired amounts. Presumably companies would be using some valuation techniques to discern how much of the recognized goodwill has been impaired. However if the arguments to not recognize internally generated intangible assets are based on the fact that there is difficulty in separating the various elements that comprise these assets, these should probably apply to valuation of recognized goodwill as well. If however the standard setters are convinced that the valuation techniques to evaluate recognized goodwill and its impairment are adequate, then one can argue that these same techniques could be applied to value internally generated intangible assets as well.

Conclusions

Intangible assets are important resources to organizations, especially in the current Information Age. When corporations are not allowed to recognize internally generated intangible assets due to uncertainties in measurement techniques their financial positions are deliberately understated. While standard setters may be concerned more with overvaluations and hence focus more attention to limiting managers' choices in trying to manipulate overstatements, deliberately understating the financial position cause as many concerns to users of financial statements as do overstatements. This may also limit companies from obtaining sufficient capital to pursue all available strategies to develop and increase income from all sources including intangible assets, which ultimately affects the competitiveness of these companies in the global marketplace. Standard setters in the U.S. need to visit their position very soon on how to allow companies to incorporate valuations of intangible assets in the financial statements of companies.

References

- [1] Arvidsson, Susanne, (2011), "Disclosure of non-financial information in the annual report: A management-team perspective," *Journal of Intellectual Capital*, Vol. 12 No. 2, pp. 277-300.
- [2] Basu, Sudipta and Gregory Waymire, (2008), "Has the importance of intangibles really grown? And if so, why?" *Accounting and Business Research*, Vol. 38 No. 3, pp. 171-190.
- [3] Dumitrescu, Adriana-Sofia., (2012), "Intangible Assets: Are These Resources Sufficiently Visible and Properly Controlled?" *Accounting and Management Information Systems*, Vol. 11 No. 4, pp. 545 – 563.
- [4] Eccles, Robert C, Robert H. Herz, Mary Keegan, and David M.H. Phillips, (2001), "The Value Reporting Revolution: Moving Beyond the Earnings Game," New York, NY: John Wiley & Sons, Inc.
- [5] Elwin, Peter, (2008), "Discussion of 'Accounting for intangibles – a critical review of policy recommendations'," *Accounting and Business Research*, Vol. 38 No. 3, pp. 205-207.
- [6] Esquivel, Omar and Sylwia Gornik-Tomaszewski, (2007), "Fair Value Measurements in Impairment Testing: How SFAS No. 157 Increases Consistency and Comparability," *Review of Business*, Vol. 27 No. 4, pp. 19-24.
- [7] Financial Accounting Standards Board (FASB), (August 2001), "SFAS 144: Accounting for Impairment or Disposal of Long-Lived Assets," Stamford, CT.
- [8] FASB, (September 2006), "SFAS 157: Fair Value Measurements," Stamford, CT.
- [9] Holman, Robert and Daniel Kahn, (Fall 2000), "The Measures that Matter" *Ernst & Young: CrossCurrents*, pp. 16-20.
- [10] Kristandl, Gerhard and Nick Bontis, (2007), "Constructing a definition for intangibles using the resource-based view of the firm," *Management Decision*, Vol. 45 No. 9, pp. 1510-1524.
- [11] Kaufmann, Lutz and Yvonne Schneider, (2004), "Intangibles: A synthesis of current research," *Journal of Intellectual Capital*, Vol. 5 No. 3, pp. 366 – 388.
- [12] Lev, Baruch, (2001), "Intangibles: Management, Measurement and Reporting," Washington, D.C.: The Brookings Institution.
- [13] Lev, Baruch, (2008), "A rejoinder to Douglas Skinner's 'Accounting for intangibles – a critical review of policy recommendations'," *Accounting and Business Research*, Vol. 38 No. 3, pp. 209-213.
- [14] Quick, Perry D and Goldschmid, Mary T, (Jan 2002), "FASB statements 141/142 and the business economist-- where, oh where, have my intangibles gone?" *Business Economics*, Vol. 37 No. 1, pp. 61-63.
- [15] Roslender, Robin, (2009), "The prospects for satisfactorily measuring and reporting intangibles: Time to embrace a new model of (ac)counting?" *Journal of Human Resource Costing & Accounting*, Vol. 13 No. 4, pp. 338-359.
- [16] Skinner, (2008), "Accounting for intangibles – a critical review of policy recommendations," *Accounting and Business Research*, Vol. 38 No. 3, pp. 191-204.
- [17] Skinner, (2008), "A reply to Lev's rejoinder to 'Accounting for intangibles – a critical review of policy recommendations'," *Accounting and Business Research*, Vol. 38 No. 3, pp. 215-216.
- [18] White, Larry N., (2007), "Unseen measures: the need to account for intangibles," *The Bottom Line: Managing Library Finances*, Vol. 20 No. 2, pp. 77-84.
- [19] Wyatt, Anne, (2008), "What financial and non-financial information on intangibles is value-relevant? A review of the evidence," *Accounting and Business Research*, Vol. 38 No. 3, pp. 217-256.

**Intellectual Capital as a determinant of Competitiveness: SMEs Manufacturing Industry in
Guadalajara, Mexico**

Jose Sanchez-Gutierrez, jsanchez@cucea.udg.mx

Elsa Georgina Gonzalez-Urbe, guribe@cucea.udg.mx

Silvio Genaro Hernandez-Coton, sghernandez@cucea.udg.mx

Marketing & International Business Department, University of Guadalajara, Mexico

Intellectual Capital as a determinant of Competitiveness: SMEs Manufacturing Industry in Guadalajara, Mexico

Abstract

The main purpose of this research is to analyse how the intellectual capital have the effects on the competitiveness in the SME's manufacturing located in Guadalajara, Mexico.

To determine the variables involved in this research, were analysed for the intellectual capital: the obtained information, intellectual capital developed and learning and feedback; and the competitiveness with other three factors: Financial Performance, Costs Reduction and Technology Use. The questionnaire was designed considering the competitiveness as dependant variable, and as independent variable the intellectual capital. Using the Likert scale in order to determine the degree of agreement or disagreement, and the survey was applied to 420 SME's. After this, it was applied questionnaires and demonstrated his validity. The results were analysed using confirmatory factor analysis (CFA), Cronbach's alpha and subsequently structural equation models (SEM).

Keywords: Intellectual Capital, Competitiveness, SMEs

Introduction

In a modern economy the process of entrepreneurship would be promoted not only by material background but also by immaterial (Mačerinskienė & Aleknavičiūtė, 2011), this condition is dictated by the changes in the organizational environment, companies require create value, but also consumers from implementing an organizational culture based on the desires and needs of customers, generating company loyalty (Atalay & Anafarta, 2011), those resources could make the difference between a competitive company or a noncompetitive company; actually innovation is the critical enabler for organizational value creation and sustainable competitive advantage (Chen & Huang, 2009), but the main obstacle for innovation is the low interest that organizations give to create the correct intellectual capital.

More than ever, intellectual capital must be viewed in organizations as a resource that despite its intangibility is on par with the tangible resources of the organization (Bounfour, 2003; Ross, et al., 2005), unlike any other resource, intellectual capital might be used to build a competitive strategy for international markets, becoming a significant source of values for modern companies (Szymura-Tyc, 2009) increasing their efficiency and effectiveness using tangible resources.

Theoretical framework

The traditional factors of production, labor, land and capital, are eclipsed into organizational distribution by the knowledge economy and intellectual capital, converting those non tangible resources into the most valuable factors of company competitiveness (Kavida, 2009); according to Majid, Lodhi and Rohra (2009), many competitive companies around the globe adopted Intellectual Capital as a strategy complement to increase their success improving the productivity and the efficiency in all senses.

Steward (1994) defined Intellectual Capital as the total stocks of collective knowledge, information, technologies, experience, organization learning, team communication systems and customer relations that are able to create values for a firm. IC includes intangible assets, capabilities and knowledge, which allow the development of basic processes of organizations, enabling the achievement of competitive advantages (Martin de Castro, 2011; Delgado, 2011; López, 2011; Navas, 2011).

Intellectual capital is becoming one of the important commercial assets of the 21st century is a way of describing a company's intangible assets that are vital for company success (Barsky & Marchant, 2000), for Bogdam, Balint and Farcas (2011), intellectual capital can be defined as knowledge that can be converted into a

value for organizations, in other words, intellectual capital is the sum of all knowledge that an organization is able to leverage in the process of conducting environmental management to gain competitive advantage (López-Gamero, et. al., 2011). Intellectual capital is knowledge that is valuable to an organization, is reusable and manageable (Singer, 2003).

Relational capital is defined as the set of relationships the company has with the environment. This type of capital is important because it provides an external evaluation of the market; provides information on trends and interests that show the agents of their environment, the relational capital is critical to make decisions, managers need to know how their investment in intellectual capital elements are linked to the performance of their companies (Wu, Tsai, Ceng & Lai , 2006).

Human Capital propose subcomponents such as the ability of employees or their satisfaction (Kaplan & Norton, 1996). Structural capital comprises all investments made to improve the experience and quality of the organization. Relational capital is included as well as culture (Saint Onge, 1996) organizational processes, intellectual property (Brooking, 1998) and customers or partners (Knight, 1999), and the intellectual capital as an intelligent and entrepreneurial organization, is in cash flow generation and competitiveness of its tangible assets (McDougall, 2005).

Fineman, Giza, Nahed, Lee & Hovda (2005), have suggested that intellectual capital is actually comprised two basic forms explicit knowledge and tacit knowledge, then, arriving to the knowledge economy has seen a decline in the relative importance of tangible resources, and demanded a paradigm shift to rely on knowledge and intellectual capital (Bontis, 1998; Guthrie, 2001).

This model could be used to increase the competitiveness into some industries that are references for the countries, in the case of Mexico, manufacturing industry is one of the most important industrial branch, just because provides commodities for national and international consumption; basically Intellectual Capital should be implanted and measured by a model that Veltri, Bronzetti and Sicoli (2011), design for the enterprises, considering market capitalization, Return to assets, Direct intellectual capital and scorecard. This intellectual capital measurement shows a pattern where a row within the organization processes must be planned in any of the four categories considered, besides that its effectiveness will be verifiable, writable and modified depending on the time and actions taken under different circumstances.

Competitiveness shows the ability to design, produce and commercialize superior products than those offered by the competition, is considered synonym of success, accomplishment of the objectives of the Enterprise (Bidu, Sala, Pantea, 2008). Chadee, Raman, Michailova (2011), define competitiveness as the ability to maintain and grow the business on a sustainable foundation. The sustainable growth can be determined as the most important method to evaluate the competitiveness (Bhattacharaya, Momaya, Iyer, 2009). It is generally recognized that the continuing competitiveness and economic growth are essential factors to sustain the standard of living and welfare (Balkytė, Tvaronavičienė, 2010).

Competitiveness is a different way of saying productivity, taking in consideration the rate of growth of a company in relation to other, (Krugman, 1994). The studies made by Krugman affirm that the best way of defining competitiveness is with the competitiveness-productivity relation, in which each of the companies fulfill their objectives, establishing standards in a certain period of time, as well as the growth in comparison to the others. Pucar (2012) also agrees that the only way to create a competitive advantage is through intellectual capital, arguing that the intellectual capital perspective can be a base for accelerated economic growth and development.

Tseng & Yeong-Jia, (2005) affirms that competitive success of an organization relates to the way in which tangible and intangible resources are managed. The intangible assets or intellectual capital includes structural human capital and clients. It plays an important role in competitiveness of a company and can increase profit. (Hazlina, Zubaidah, 2008).

The organizations that are constantly in an innovation process, are the first to stand out and show unlike any other, companies that innovate constantly is because they know the market needs are changing and they look forward to penetrate it, innovation is an essential factor for competitiveness, but it is also important to include internal factors such as technology and management, and external factors such as market structure and product position in the market, establishing that these factors are the ones that give an added value to the company (Gao, Liu, Song, Zheng, 2013).

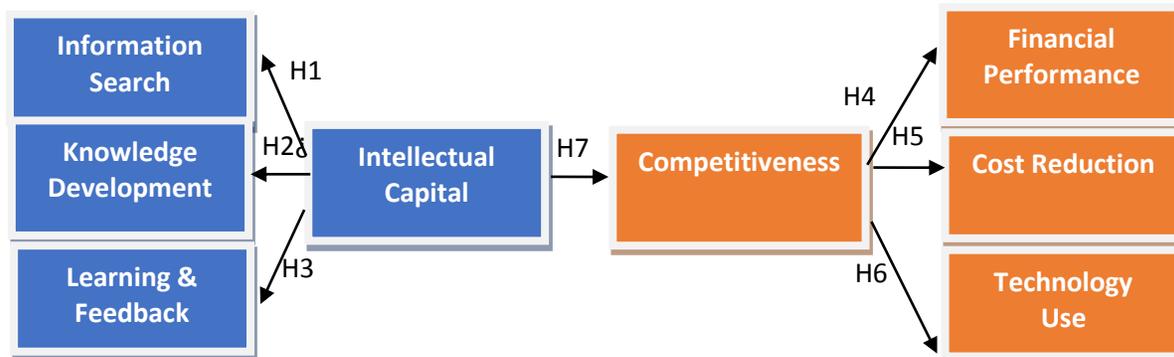


FIG. 1: THEORETICAL MODEL RELATING INTELLECTUAL CAPITAL AND COMPETITIVENESS
Source: own

Methodology

The surveys were applied in 418 SME's of manufacturing industry in the city of Guadalajara, Mexico, during July and August 2013.

Also, there are seven hypotheses that will contribute to this research:

H1: Higher level of new information, higher level of intellectual capital.

H2: Higher level of knowledge development, higher level of intellectual capital.

H3: Higher level of learning and feedback, higher level of intellectual capital.

H4: Higher level of financial performance, higher level of business competitiveness.

H5: Higher level of cost reduction, greater level of business competitiveness.

H6: Higher level of technology use, greater level of business competitiveness.

H7: Higher level of intellectual capital development, higher level of business competitiveness.

Similarly, to measure the level of competitiveness were considered the three factors proposed by Buckley *et al.* (1988): 1) *financial performance*, 2) *costs reduction*, and 3) *technology use*, all of these, measured by a scale of 6 items. All the items of the three factors are built by a level Likert type of 5 positions, with 1 = completely in disagreement to 5 = completely agree as limits.

To assess the reliability and validity of scales measuring of the level of intellectual capital and business competitiveness, a Confirmatory Factorial analysis (CFA) with the method of maximum likelihood and EQS 6.1 software (Bentler, 2005;) Brown, 2006; (Byrne, 2006).

Rates of statistical adjustment that were considered were the NFI, NNFI, IFC and RMSEA (Bentler & Bonnet, 1980;) Byrne, 1989; Bentler, 1990; Hair et al., 1995; Chau, 1997; (Heck, 1998).

Analysis and Discussion

The results of the Confirmatory Factorial Analysis (CFA) are presented in table 1 and shown that the measurement model provides a good fit of the data. As evidence of the convergent validity, the CFA indicates that all items of the related factors are significant ($p < 0.01$), which provides evidence of reliability and justifies the internal reliability of the scale of the business competitiveness (Nunally & Bernstein 1994); (Hair et al., 1995) show in table 1.

TABLE 1: INTERNAL CONSISTENCY AND CONVERGENT VALIDITY OF THE THEORETICAL MODEL

Variable	Indicator	Factor Loading	Robust T- Value	Cronbach's Alpha	CRI	VEI
Information search (F1)	CIB1	0.685***	1.000 ^a	0.866	0.862	0.535
	CIB2	0.774***	7.486			
	CIB3	0.712***	7.288			
	CIB4	0.850***	7.551			
	CIB5	0.699***	6.197			
Knowledge development (F2)	CIC1	0.851***	1.000 ^a	0.772	0.791	0.543
	CIC2	0.690***	10.421			
	CIC3	0.715***	10.922			
Learning and feedback (F3)	CIA6	0.728***	1.000 ^a	0.839	0.867	0.649
	CIA7	0.877***	9.865			
	CIA8	0.793***	9.634			
Intellectual Capital	F1	0.692***	5.103	0.844	0.864	0.651
	F2	0.976***	8.091			
	F3	0.698***	5.314			
Financial Performance (F4)	FP3	0.766***	1.000 ^a	0.892	0.893	0.669
	FP4	0.866***	17.150			
	FP5	0.880***	16.332			
	FP6	0.733***	13.904			
Cost Reduction (F5)	PC3	0.933***	1.000 ^a	0.946	0.940	0.788
	PC4	0.963***	43.253			
	PC5	0.871***	27.893			
	PC6	0.755***	19.778			
Technology Use (F6)	TE3	0.842***	1.000 ^a	0.779	0.797	0.623
	TE4	0.792***	13.449			
	TE6	0.604***	10.542			
Competitiveness	F4	0.787***	5.237	0.824	0.822	0.615
	F5	0.767***	5.223			
	F6	0.763***	5.218			

Related to the evidence of the discriminant validity, measurement of the scale of the business competitiveness level was through two ways which you can see in more detail in table 2. First, the range of 95% of confidentiality, none of the individual elements of the correlation factors matrix contains the value 1.0 (Anderson & Gerbing, 1988). Second, the variance extracted between each pair of factors is higher than its corresponding VEI (Fornell & Larcker, 1981). Therefore, based on these criteria one can conclude that the different measurements made on the scale show enough evidence of reliability and convergent and discriminant validity. See table 2.

TABLE 2: DISCRIMINANT VALIDITY OF THE THEORETICAL MODEL MEASUREMENT

Variables	Intellectual Capital	Competitiveness
Intellectual Capital	0.658*	0.159
Competitiveness	0.343 - 0.455	0.606*

*These values presented the estimation of the correlation factors with a confidence interval of 95%.

The hypotheses were tested in the theoretical model of innovation and business competitiveness, using the Structural Equations Model (SEM) software EQS 6.1 (Bentler, 2005;) Byrne, 2006; (Brown, 2006).

The nomological validity of the theoretical model was analyzed through the performance of the chi-square test, in which the theoretical model was compared with the measurement model, not finding significant differences (Anderson & Gerbing, 1988;)(Hatcher, 1994). The results of this analysis are presented in table 3.

TABLE 3: RESULTS OF THE THEORETICAL MODEL OF BUSINESS COMPETITIVENESS

Hypothesis	Structural Relationship	Standardized Coefficient	Robust T-Value
H1: Higher level of new information, increase the level of intellectual capital.	Information search. → Int. Cap.	0.226***	5.703
H2: Higher level of knowledge development, increase the level of intellectual capital.	Knowledge develop. → Int. Cap.	0.469***	7.114
H3: Higher level of learning and feedback, increase the level of intellectual capital.	Learning & feedback → Int. Cap.	0.366***	6.500
H4: Higher level of financial performance, greater level of business competitiveness.	Financial Perfor. → Competitiveness	0.571***	11.846
H5: Higher level of cost reduction, greater level of business competitiveness.	Cost Reduction → Competitiveness	0.222***	6.187
H6: Higher level of technology use, greater level of business competitiveness.	Technology use → Competitiveness	0.323***	7.999
H7: Greater level of intellectual capital development, greater level of business competitiveness.	Intel. Capital → Competitiveness	0.299***	0.8.677
<i>S-BX2 (df = 184) = 443.307; p < 0.000; NFI = 0.894; NNFI = 0.918; CFI = 0.934; RMSEA = 0.058</i>			

*** = p < 0.001

The table 3 shown the results obtained of the Structural Equations Model, with regard to the **H1** the results obtained, $\beta = 0.226$, $p < 0.001$, indicate that searching information has significant effects with the intellectual capital in manufacturing firms. As for the hypothesis **H2**, the results obtained, $\beta = 0.469$, $p < 0.001$, suggest that knowledge development also have significant effects in the intellectual capital. En the hypothesis **H3** the results obtained, $\beta = 0.366$, $p < 0.001$, suggest that the learning and feedback also have significant effects in the manufacturing firms.

Also, respect with hypothesis **H4** the results obtained, $\beta = 0.571$, $p < 0.001$, indicate that the financial performance has significant effects on the competitiveness level. In the hypothesis **H5** the results obtained, $\beta = 0.222$, $p < 0.001$), suggest that cost reduction also have significant effects on business competitiveness. The results obtained in the hypothesis **H6**, $\beta = 0.323$, $p < 0.001$, suggest that the technology use also has significant effects on business competitiveness. Finally, the results obtained in the hypothesis **H7**, $\beta = 0.299$, $p < 0.001$, presented that the intellectual capital has significant effects on business competitiveness.

Limitations

The first limitation, the sample considered companies from 20 to 250 workers, excluding the companies from 1 to 10 workers, which representing an important quantity of the total manufacturing SME's, then, for future studies should be important to consider these companies to analyze the effects of intellectual capital in business competitiveness.

A second limitation is that the questionnaire was applied to directors or CEO's level, and the results could differ in functional managers. Therefore, in future studies, it could be important to consider the opinion of customers and suppliers to analyze the results obtained.

Finally, it is important to go beyond the technical results and discuss in greater depth: what effects should in SME manufacturing if a more quantitative scale is used to measure the business competitiveness? What results would be in SME manufacturing if applies a more sophisticated model for the measurement of business competitiveness? What specific activities of the financial performance, the reduction of costs and the use of technology are those that most affect business competitiveness? These and other questions that may arise can be answered in future research.

Conclusions

This research had shown that SME's manufacturing in Guadalajara, have a good correlation between the dependent variable competitiveness with the independent variable intellectual capital, and the results expressed in this study appear to be consistent with the relation of factors technology use, costs and financial performance with the variable competitiveness, and also the factors information search, knowledge development, and learning and feedback are related with the variable intellectual capital.

These SME's are in a transformation process of administrative schemes, with a more cognitive and sustainable system, being conscious to create and generate new information, increasing knowledge development and learning and feedback knowledge in all the organization.

References

- [1] Abadi, H., & Tavakoli, N., (2011). Determining the level of Influencing of Intellectual capital Efficiency on Brand Value of the Companies Accepted in Tehran Stock Market. *Interdisciplinary Journal of Contemporary Research in Business*, 3(4), 911-918.
- [2] Ahmadi, F., Habibi, F., & Khodamoradi, A., (2011). The role of Intellectual Capital on improvement performance of agricultural bank in Iran. *Interdisciplinary Journal Of Contemporary Research In Business*, 3(3), 1116-1124.
- [3] Arenas, T., Lavanderos, L., (2008). Intellectual capital: object or process. *Journal of Intellectual capital*, 9(1), 77-85.
- [4] Atalay, M. & Anafarta, N. (2011). Enhancing Innovation Through Intellectual Capital: A Theoretical Overview. *Journal of Modern Accounting & Auditing*. 7(2), 202-210.
- [5] Bodgdam, V., Balint, J. & Farcas, M. (2011). Intellectual capital reporting and disclosure in the annual reports of romanian manufacturing listed companies – theoretical framework. *Annals of the University of Oradea, Economic Science Series*, 1(1), 275-283.
- [6] Byrne, B. (2006), *Structural Equation Modeling with EQS, basic concepts, applications, and programming*, 2th edition, London: LEA Publishers.
- [7] Chung-Chu, L., (2011). Developing Measures of Intellectual Capital for the Venture Capital Industry in Taiwan. *Managing Global Transitions: International Research Journal*, 9(1), 81-100.
- [8] Fornell, C. and Larcker, D. (1981), “Evaluating structural equation models with unobservable variables and measurement error”, *Journal of Marketing Research*, 1(18), 39-50.
- [9] Kavida, V. (2009). Intellectual Capital: a Strategic Management Perspective. *IUP Journal of Knowledge Management*. 7(5/6), 55-69.
- [10] Lopez-Gamero, M., Zaragoza-Saenz, P., Claver-Cortés, E. & Molina-Azorin, J. (2011). Sustainable Development and Intangibles: Building Sustainable Intellectual Capital. *Business Strategy & the Environment*, 20(1), 18-37.
- [11] Lopez Salazar, A., Contreras Soto, R., & Espinosa Mosqueda, R., (2012). The Impact of Financial Decisions and Strategy on Small Business Competitiveness. *Global Journal of Business Research*, 6(2), 93-103.
- [12] Mačerinskienė, I. & Aleknavičiūtė, G. (2011). The evaluation of intellectual capital influence on entrepreneurship. *Economics and Management*, 16(1), 558-566.
- [13] Nahapiet j and Ghoshal S (1998), Social Capital, Intellectual Capital, and the Organizational Advantage. *The Academy of Managanent Review*, 23(2), 242-266.
- [14] Sofian, S., Rasid, S.Z.A., Mehri, M., (2011). Moderating effect of intellectual capital on relevance of earnings and cost of equity relationships: review of contemporary literature. *Journal of Applied Sciences Research*, 7(9), 1633-1639.
- [15] Szymura-Tyc, M. (2009). The role of marketing intellectual capital in creating competitive advantage in the international market - theoretical assumptions and empirical evidence of polish firms competing in the European markets. *Journal of Economics & Management*, 6(1), 161-186.

Note: “Contact author for the list of references”.

**Relevance of Intangibles in European Companies'
Balance Sheets – an Empirical Perspective**

*Sebastian Serfas, sebastian.serfas@fom.de
FOM University of Applied Sciences, Germany*

Relevance of Intangibles in European Companies' Balance Sheets – an Empirical Perspective

Abstract

This empirical research discusses the quantitative relevance of intangibles in European companies' balance sheets, represented by the share of intangible assets compared to a company's total assets. It analyzes 600 of the most important European companies from 24 countries across 19 industries along 3 key dimensions: size, industry, and geography.

In 2012, intangible assets on average accounted for a fifth (19.7%) of a company's total assets (median: 13.4%). However, this varies considerably by industry: from less than 1% for banks (0.7%) and real estate (0.1%) to more than 35% for media (41.3%) and health care (37.1%).

Concerning size, only a relatively weak – but statistically significant – negative linear correlation is observed between a company's revenues and its intangibles share. The analysis also yields that for nearly all countries the observed intangibles share does not deviate statistically significantly from the 'expected' share given a country's industry structure.

Introduction

For a multitude of companies, intangibles are a relevant aspect of their business. Such business-relevant intangibles exist in a huge variety of types, ranging from rather easy-to-grasp, concrete assets – for instance patents, licenses, software, or brands – to elusive, hardly quantifiable aspects, for instance knowledge-based resources or the skills and experience of employees. However, in contrast to this 'qualitative' relevance of intangibles, which has already received considerable attention, both from a scientific and from a business perspective, several 'quantitative' aspects, in particular the empirical relevance of the resulting intangible assets on a company's balance sheet from an accounting perspective, have been largely neglected so far. This paper will address exactly this aspect.

The research goal of this paper is thus to contribute to the discussion regarding the role and relevance of intangibles by depicting, from an empirical perspective, the quantitative relevance of intangibles in European companies' balance sheets, represented by the share of intangible assets compared to a company's total assets. Although this relative share of intangible assets in the balance sheet is not a perfect proxy for the relevance of intangibles – in particular as some specific intangibles are not capitalized in the balance sheet – it provides a very good indication for the quantitative relevance from an empirical accounting perspective.

The object for this empirical analysis consists of the intangible assets specified in the balance sheets of the annual consolidated accounts of the most important publicly traded European enterprises. However, given that the treatment of intangible assets – and thus its absolute and relative size in the balance sheet – is strongly influenced by the underlying accounting standard, this paper will focus only on companies using IAS/IFRS rules – which is the vast majority of listed European companies anyway – to ensure comparability and stability of the base data and validity of the findings. Furthermore, IAS/IFRS also presents a rather accurate picture of a capitalized intangible asset's value compared to some alternative accounting rules, for instance the national accounting standards in Germany (HGB), which disallow the appreciation of intangible assets above their original historical costs even if their intrinsic value has increased in the meanwhile.

The research paper follows a clear structure: The first part describes how the relevant data set, containing 600 European companies, was derived and provides some high-level insights. Subsequently, the assessment of the relative share of intangibles is conducted along three key dimensions, which are analyzed and discussed one by one: company size, industry, and geography. Finally, the overall results are condensed and summarized.

Object for analysis

Derivation of the data set for analysis

In order to obtain a representative sample of the most important publicly traded European enterprises, the data set for analysis is taken from the Stoxx All Europe 800 Index, which represents the 800 largest companies in Europe. This index has been selected as it covers – in contrast to many other ‘European’ indices – all European states, inside and outside the European Union (EU), both Euro and non-Euro countries, as well as enterprises from Eastern and Western Europe.

The analysis will be conducted based on the balance sheets taken from the group’s annual consolidated accounts for the financial year 2012, for reasons of data availability. In the case of a deviation between financial and legal year, the reporting period that covers the larger share of 2012 has been selected.¹ In a second preparatory step, the index’s original geographical allocation has been adjusted for a small number of companies; in particular, enterprises from UK-related territories, for instance Guernsey and Jersey, have been allocated to the UK for the purpose of this analysis.

As pointed out in the introduction, only companies preparing their accounts in line with IAS/IFRS are considered, for reasons of comparability. As a consequence, all non-IAS/IFRS companies have been taken out, in particular all companies from Turkey, selected companies from Switzerland, Russia and Great Britain that report according to US-GAAP, as well as various individual enterprises that also prepare their group accounts based on US-GAAP, for instance ASML from the Netherlands and Fresenius from Germany.

This left a total of 750 ‘eligible’ enterprises, from which a sample of 600 companies (80%) has been taken. In order to obtain a data set that very well represents the most important exchange-traded European companies across geographies, industries, and size, the sample was selected in such a way that it includes – for every industry and for each geography – at least two thirds of all ‘eligible’ companies and 90% of the respective industry’s or geography’s ‘eligible’ market capitalization.

Given that IAS/IFRS does not specify a fixed compulsory balance sheet structure (IAS 1.57) – in contrast for example to national accounting rules in Germany (§266 HGB) – the information regarding the total amount of intangible assets capitalized in the balance sheet can be either stated in one balance sheet item, or split into various positions. As a consequence, only for less than half of the companies (48%) data could be taken directly from the Bloomberg database (Bloomberg, 2014). For the remaining companies, the data had to be obtained manually based on the respective company’s published consolidated financial statements. In case of non-Euro financial statements, currency conversion was accomplished via historical values, using end-of-period exchange rates for balance sheet items and average exchange rate of the respective period for items in the profit and loss statement.²

High-level results

In total, the analyzed data set contains 600 European companies from 24 countries across 19 industries. The data set covers enterprises with highly differing sizes: revenues range from 52 million Euros to 364 billion Euros, market capitalization lies between 194 million Euros and 168 billion Euros. The total market capitalization of the analyzed companies amounts to 7.49 trillion Euros as of December 31st, 2012, representing 95.3% of the market capitalization of the ‘eligible’ European companies.

With regard to the underlying question of the relevance of intangibles for these companies, represented by the share of intangible assets compared to the total assets capitalized in the balance sheet, the high-level analysis yields an overall average share of 19.7% (median: 13.4%), meaning that, on average, one fifth of a company’s total reported assets are intangible.³ However, the range is very large, spanning from virtually zero up to about 80% in individual cases. This is also depicted in figure 1, which illustrates the distribution of the share of intangible assets across the data set:

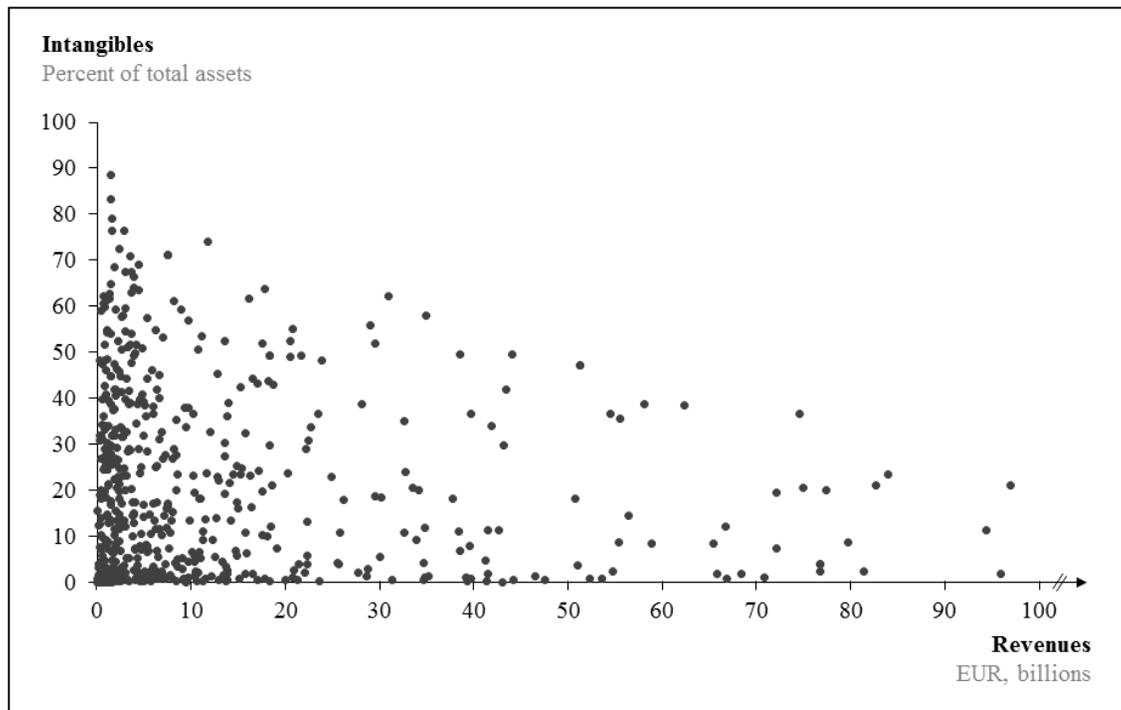


FIG. 1: DISTRIBUTION OF THE SHARE OF INTANGIBLES, 2012, CAPPED⁴

The above scatter chart illustrates that the data is obviously not normally distributed and potentially skewed, which is also indicated by the difference between mean (19.7%) and median (13.4%). In order to test this indication statistically, two skewness test statistics are calculated, as suggested by Doane and Seward (2011), with the null hypothesis being that the data is symmetrical: the adjusted Fisher-Pearson standardized moment coefficient ($G_1=0.9628$) and the Pearson 2 skewness coefficient ($Sk_2=0.9571$). Both statistics are far above the respective tabulated critical values⁵ (Doane & Seward, 2011), thus resulting in the null hypothesis being rejected in favor of the alternative hypothesis, which suggests non-normal skewness. As a consequence, it seems more adequate to use the median instead of the mean for the subsequent analyses.

Analysis by company size

Method

Whenever intangibles-based rankings are published in the media, large companies typically occupy the top-positions, for instance with regard to largest brand values (WPP Group, 2014) or highest investments into research & development (European Commission, 2013). This could, at first sight, let one believe that intangibles might be more relevant for larger companies than for smaller ones.

The resulting research question for this section is therefore to analyze whether there actually is a statistically significant linear relationship between an enterprise's size and its share of intangibles. For the purpose of this analysis, size is represented in two ways: revenues (representing the size of the company's operations) and market capitalization (representing its stock-market value-based size).

The analytical setup encompasses two components: a linear correlation analysis based on the full data set, and a linear correlation analysis based on decile-groups. For the first analysis, the Pearson product-moment correlation coefficient (r) is calculated to measure the degree of linear dependence between the share of intangibles and the

revenues respectively the market capitalization, based on the full data set of $n=600$ enterprises. Subsequently, a two-tailed t-test with $n-2$ degrees of freedom is conducted to determine whether the correlation coefficient r significantly differs from zero, with the null hypothesis being that r equals zero. For the second analysis, the companies are ranked and allocated into ten groups based on deciles with regard to their revenues (respectively their market capitalization) in ascending order. For instance, the first group (decile 1) includes the 60 companies with the lowest 10% of revenues, the second group (decile 2) contains the 60 companies with revenue ranks between 10% and 20%, etc. For each group, the median revenue (respectively market capitalization) and the median share of intangibles are calculated. Then the Pearson product-moment correlation coefficient is calculated across the ten groups, followed by a two-tailed t-test equivalent to the one described above.

Results

The linear correlation analysis based on the full data set with market capitalization as proxy for size yields a Pearson product-moment correlation coefficient of $r=0.04$, which could indicate a very small positive linear relationship. The subsequent two-tailed t-test results in the null hypothesis not being rejected at the 5% confidence level ($p=0.35$), which means that there is no statistically significant linear correlation between market capitalization and the share of intangibles.

With regard to revenues, the linear correlation analysis based on the full data set results in a Pearson product-moment correlation coefficient of $r=-0.10$, which potentially indicates a rather weak negative linear dependence. The respective two-tailed t-test results in the null hypothesis being rejected at the 5% level ($p=0.01$) in favor of the alternative hypothesis. This implies that there is a statistically significant linear relationship between the revenues and the intangibles share, but it is extremely small. This is also illustrated, to a certain extent, in figure 1.

For market capitalization, the linear correlation analysis based on decile-groups results in a Pearson product-moment correlation coefficient of $r=-0.38$. The respective two-tailed t-test leads to the null hypothesis not being rejected at the 5% level ($p=0.27$). This implies that there is also no statistically significant linear relationship for market capitalization on the group level. The linear correlation analysis with revenue-based decile-groups yields similar results ($r=-0.33$; $p=0.35$), i.e. no statistically significant linear correlation could be observed on a group-base.

Overall, there does not seem to be a linear correlation between market capitalization and the share of intangibles, but there is limited evidence for a – relatively weak – linear relationship between the relevance of intangibles – represented by the share of intangibles compared to total balance sheet assets – and the size of a company, represented by its revenues. However, in contrast to what one might have expected, this weak linear relationship is negative, i.e. larger companies, to a certain extent, tend to have a smaller intangibles share.

Despite seeming counterintuitive at first glance, this finding does not contradict the ‘intangibles facts’ stated earlier: larger companies on average very likely do possess a larger absolute number of intangibles assets, but the relative share decreases with size.⁶ Nevertheless, one has to bear in mind that the observed linear relationship is actually very weak.

Analysis by industry

Method

In qualitative terms, the underlying importance of intangibles differs considerably amongst industries, for instance due to a varying relevance of patents, licenses, R&D, software, etc. within the business model of each industry. Furthermore, the balance sheet structure is also highly dependent on the industry that a company operates in; for instance, the asset structure is completely different for manufacturing vs. service industry enterprises, or for banks vs. trade companies. As a consequence, one might expect that the share of intangibles also differs between industries.

This leads directly to the research question for this section, which aims to analyze whether there is a statistically significant difference in the share of intangibles with regard to industries. For the purpose of this analysis, all companies have been allocated to 19 ‘supersectors’ in line with the industry classification benchmark (ICB) as

provided by the Bloomberg database (Bloomberg, 2014). These ‘ICB supersectors’ are referred to as ‘industries’ throughout this paper.

For each of the 19 industries the median share of intangibles is calculated, referred to as ‘industry-median’ in the following paragraphs. Every industry-median is then individually tested against the overall median (13.37) with the null hypothesis being that the industry-median equals the overall median. Given the non-normal distribution and the partly small sample size, a non-parametric sign test is used (Fahrmeir, Künstler, Pigeot, & Tutz, 2007). It is expected that industries with an industry-median that is close to the overall median will not show a statistically significant deviation from the overall median. Therefore, in a second step, industries are tested against the first and third quartiles: industries with a median intangibles share above the overall median are tested against the 25%-quartile (2.19), those with an industry-median below the overall median are tested against the 75%-quartile (32.18). On top, in a third analysis, a set of three two-samples tests is conducted to test selected pairs of industries against each other, in order to examine whether their intangibles shares do differ pairwise. For this purpose, given non-normal distribution and partly small sample sizes, the non-parametric Wilcoxon rank sum test is selected (Newbold, Carlson, & Thorne, 2012), preceded by a Brown-Forsythe test of homoscedasticity⁷, to satisfy the Wilcoxon rank sum test’s requirement of homogeneity of variances (Fahrmeir et al., 2007).

Results

As expected, the result of the first analysis reveals considerable differences between industries with regard to the median share of intangibles, as figure 2 illustrates. Industries with a high qualitative importance of intangibles tend to have a higher share – for instance media (licenses) and health care (patents) companies – while the observed intangibles share is smaller for industries with a lower qualitative relevance of intangible assets.

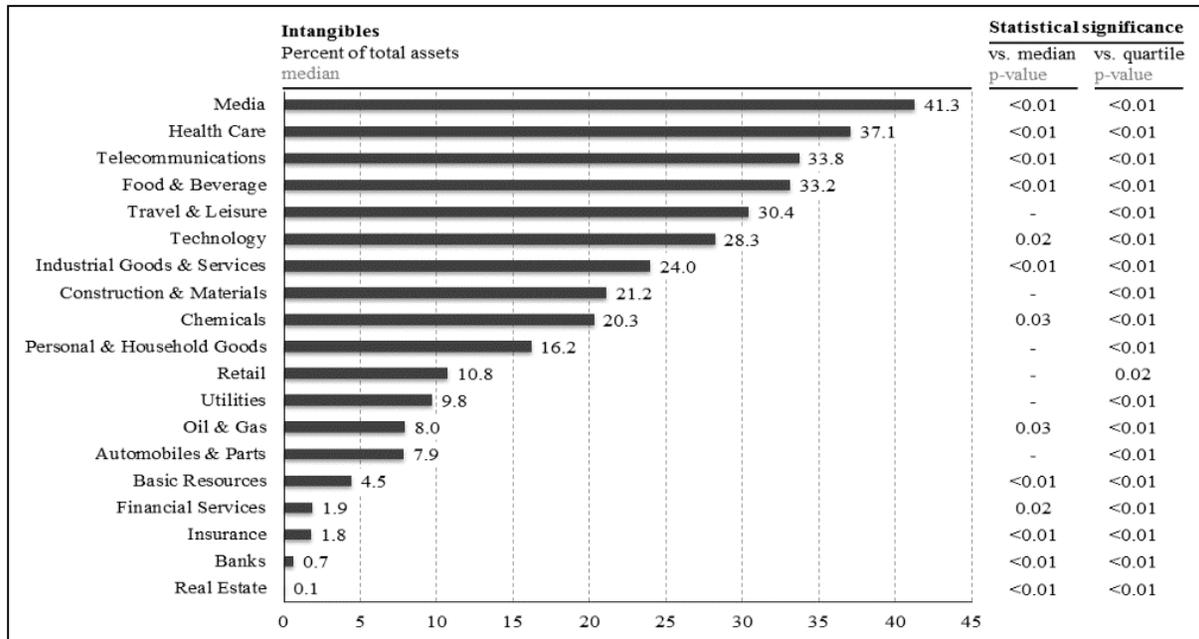


FIG. 2: SHARE OF INTANGIBLES BY INDUSTRY, 2012

The results of the first series of non-parametric sign tests indicate that, for the majority of industries, the respective industry-median differs statistically significantly from the overall median on the 5% confidence level, i.e.

the null hypothesis is rejected (p-values are provided in figure 2 above). For six industries, the results are not statistically significant, in particular for industries with a median that is close to the overall median, as expected.

The second series of non-parametric sign tests – incorporating the 25%/75%-quartile instead of the overall median – yields statistically significant results for all industries. The null hypothesis is rejected at the 5%-level in all cases (p-values are provided in figure 2 above) in favor of the alternative hypothesis, implying that each industry's intangibles share differs statistically significantly from the respective value of the 'opposite' 1st/3rd quartile.

The results of the third set of tests provide further evidence that there seems to be a statistically significant difference in the share of intangibles between industries. The first pair for testing is selected based on the results of the very first analytical series: out of the six industries with initially non-significant difference versus the overall median, two industries are selected: the 'middle' one of the 3 industries that are above the overall median (i.e. construction and materials) and the 'middle' one of the 3 industries that are below the overall median (i.e. utilities). Following the 'passed' Brown-Forsythe test, the one-tailed two-samples Wilcoxon rank sum test – with H_0 being that the industry-median of construction and materials is equal or less than the industry-median of utilities, and H_a stating that the former is higher than the latter – results in the null hypothesis being rejected at the 5%-level ($p=0.02$) in favor of the alternative hypothesis. This means that the intangibles share of construction and materials is statistically significantly higher than the share of intangibles of utilities. In a second set of analog tests, the telecommunications industry – selected as it is close to and slightly above the 75%-quartile – is compared against two other industries: personal & household goods (which has a 'semi-high' industry-median) and retail (which has a 'semi-low' industry-median). Subsequent to the 'passed' Brown-Forsythe pre-tests, both one-tailed two-samples Wilcoxon rank sum tests yield statistically significant results for both pairs at the 5%-level (p-values are 0.04 and 0.03), meaning that the share of intangibles is statistically significantly different for telecommunications compared to utilities or personal & household goods.

Overall, the results clearly imply that there are considerable differences between industries with regard to the quantitatively observable share of intangibles, and, as a consequence, that the industry in which an enterprise operates does significantly impact the observed share of intangibles. However, it must be pointed out that the analytical results do not claim that the intangibles share of each industry does differ from the share of every other industry. In particular for industries with very similar industry-medians – for instance insurance (1.83) and financial services (1.93) or food & beverage (33.19) and telecommunications (33.76) – this cannot be claimed. However, the analyses do show that there are statistically significant differences among certain industries and in particular between groups of industries, for instance between 'high-share' and 'low-share' industries, but also amongst 'high-share' industries like telecommunications and 'semi-high-share' industries like personal & household goods, or between 'semi-high-share' industries like construction & materials and 'semi-low-share' industries like utilities.

Analysis by geography

Method

The third and final dimension for analysis is related to the geographic location of a company, which could potentially influence the share of intangibles in the balance sheet, although there is no obvious argument with regard to the likely direction of a potential influence.⁸ However, as outlined before, industry is a key factor that influences a company's share of intangibles. Combining this finding with the fact that the industry structure differs considerably amongst countries, results in the requirement of incorporating the aspect of industry structure into the geographic analysis.

This is achieved by constructing a 'standardized' intangibles share for each country: for every country, the country's actual industry structure – as observed in the data set – is combined with the respective 'industry-medians' calculated earlier. The resulting standardized share of intangibles for a country represents a country's 'expected' intangibles share given the industry structure: it illustrates what the intangibles share for this country would be if all its companies had intangibles shares equal to the median share of the respective industry. If the observed intangibles share of a country is higher or lower than its 'standardized' one, then this difference must be due to a factor different from industry composition, as the influence of the industrial structure has been eliminated.

Resulting from the above considerations, the research question for this analysis is whether there is a statistically significant difference between a country's observed vs. its standardized intangibles share, which could potentially be interpreted as a hint towards a country-specific influence on the share of intangibles.

The data set contains companies from 24 different countries. For each of these 24 geographies the median share of intangibles is calculated, referred to as 'country-median' in the following paragraphs. However, only countries with a minimum size of at least 3 companies in the data set are taken into account when calculating the standardized intangibles share. As a consequence, 3 countries cannot be considered for the standardization: Croatia, Romania, and Slovenia.

Subsequently, every country-median is individually tested against its respective standardized intangibles share, in order to test whether the observed differences are actually statistically significant. Along the lines of the previous analyses, a one-sample two-tailed non-parametric sign test is selected for this purpose, with the null hypothesis being that the country-median is equal to the respective standardized intangibles share, and the alternative hypothesis being that they differ statistically significantly.

Results

Fig. 3 depicts the observed median intangibles share for each of the 24 countries resulting from the analysis as well as the standardized intangibles share calculated for every geography based on its industry structure:

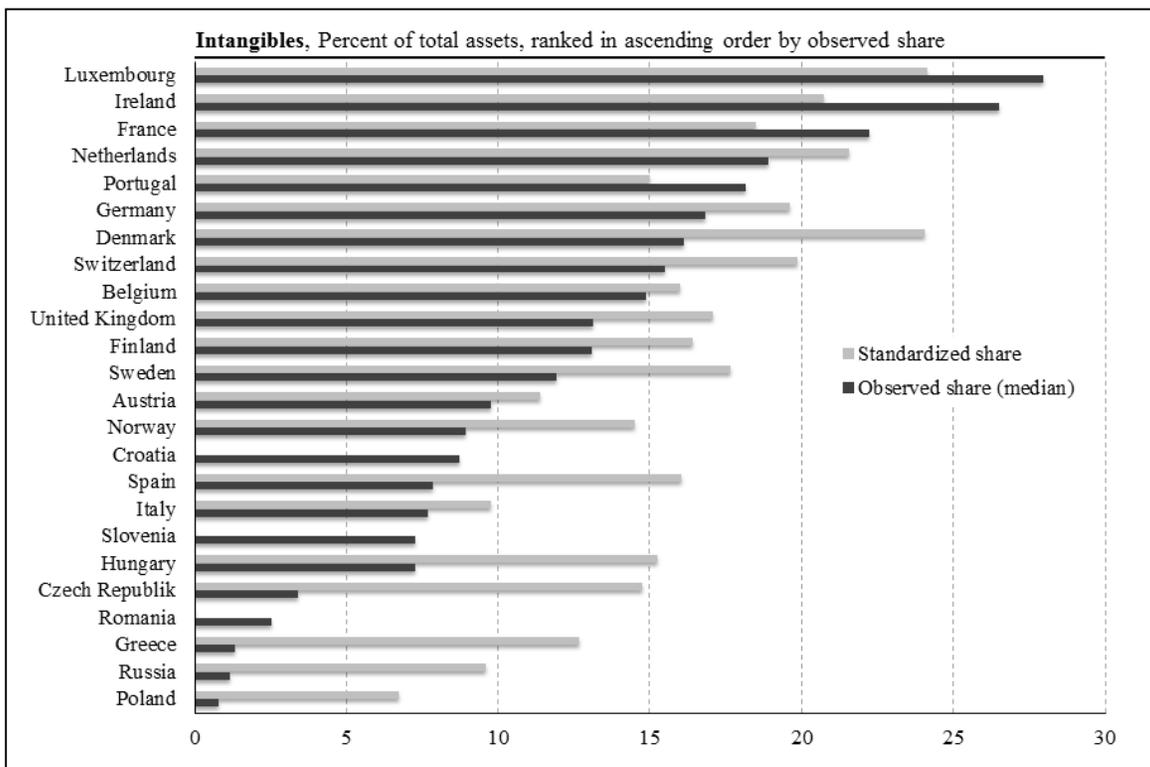


FIG. 3: SHARE OF INTANGIBLES BY GEOGRAPHY, 2012

As figure 3 illustrates, there seem to be – partly rather large – differences in the intangible shares. However, the analysis reveals that these differences are not statistically significant at the 5% level for the majority of countries.

Only for two countries, Poland ($p=0.02$) and Russia ($p=0.02$), the null hypothesis is rejected at the 5%-level in favor of the alternative hypothesis, implying that the observed intangibles share is actually statistically different from the standardized share. In fact, both countries have actual shares far below what one would expect given their industry structures, which could be interpreted as a strong hint towards a potential country-specific influence on intangibles in Russia and Poland.

For all other countries, the null hypothesis is not rejected at the 5%-level. This means that the observed deviations between country-median and standardized intangibles share are not statistically significant. It must be noted that these results do by no means imply or prove that both are equal; however, not finding a statistically significant deviation – for such a large number of countries – could potentially be interpreted as a valuable first hint that the standardized share might be an interesting reference point for a country's intrinsic intangible share and for detecting potential country-specific influences, as seems to be the case with Russia and Poland.

Summary and conclusions

The stated research goal of this paper was to contribute to the discussion regarding the role and relevance of intangibles by depicting, from an empirical perspective, the quantitative relevance of intangibles in European companies' balance sheets, represented by the share of intangible assets compared to a company's total assets. This has been accomplished by empirically analyzing 600 of the most important publicly listed European companies from 24 countries across 19 industries. These analyses have resulted in various highly interesting findings. In particular, four key insights can be distilled:

Firstly, intangibles are indeed highly relevant for European companies from a quantitative balance sheet perspective: in 2012, intangible assets on average accounted for a fifth of a company's total assets, which is definitely not a negligible share. This share varies considerably among companies, ranging from virtually zero to about 80% in individual cases. Furthermore, given that particular intangibles - for instance internally generated brands and goodwill - must not be recognized and shown as intangibles assets in the balance sheet (IAS 38.51 ff.), the 'true' share and relevance of intangibles could in fact be even higher.

Secondly, industry is a key determining factor for the share of intangibles, and thus for the quantitative relevance of intangibles. The observed intangibles shares differ considerably depending on the industry: for instance, while the median share of real estate companies (0.1%) and banks (0.7%) is very low, other industries like media (41.3%) and health care (37.1%) have a very high median share. The analysis also points towards statistically significant differences among many industries and in particular between quartile-based industry groups. In fact, industry clearly turns out to be the most important of the three analyzed dimensions.

Thirdly, there is no statistically significant evidence for pervasive country-specific determinants for the share of intangibles if the industry structure is taken into account. Only 2 out of 24 countries show a statistically significant deviation between the observed intangibles share and the 'standardized share', i.e. the 'expected' share given the country's industry structure: Poland and Russia; for all other countries there is no evidence for a significant deviation. As a consequence, this 'standardized share' could potentially be a very interesting reference point for a country's 'intrinsic' intangible share.

Fourthly, company size is much less influential than one might have expected. In fact, the analytical results yield only a relatively weak – nevertheless statistically significant – linear correlation between a company's revenues and its intangibles share; and this linear correlation is negative. This signifies that the relative share of a company's intangible assets – not the absolute value of intangible assets – tends to slightly decrease as company size increases. With regard to market capitalization, another potential measure for size, there is no statistically significant evidence at all for a linear relationship though.

In total, the research conducted in this paper generates valuable insights into an area that has not been addressed scientifically in detail so far, by providing an empirical perspective on the quantitative relevance of intangibles in European companies' balance sheets. The presented findings also enrich and complement the ongoing discussion regarding the role and relevance of intangibles.

Nevertheless, this research needs to be seen and understood primarily as a valuable starting point for entering this highly interesting yet relatively unknown area. There are plenty of opportunities for future research to validate, complement and extend the initial findings, for instance analyses covering additional financial periods or including further geographic areas.

References

- [1] Bloomberg (2014). *Stoxx All Europe 800 financial statements data*. Retrieved from Bloomberg database.
- [2] Doane, D. & Seward, L. (2011). *Measuring Skewness: A Forgotten Statistic?*. Journal of Statistics Education, Volume 19, Number 2.
- [3] European Commission (2013). *The 2013 EU Industrial R&D Investment Scoreboard*. Institute for Prospective Technological Studies.
- [4] Fahrmeir, L., Künstler, R., Pigeot, I., & Tutz, G. (2007). *Statistik, 6th edition*. Springer.
- [5] Handelsgesetzbuch (HGB) (2014). Beck-Text.
- [6] International Financial Reporting Standards (IAS/IFRS) (2014). IFRS Foundation.
- [7] Newbold, P., Carlson, W., & Thorne, B. (2012). *Statistics for Business and Economics, 8th edition*. Pearson.
- [8] WPP Group (2014). *BrandZ Top 100: most valuable global brands 2014*. Millward Brown.

End Notes

¹ This includes for instance financial years ending on March 31st, 2013, or on September 30th, 2012.

² In particular with regard to revenues, as these are necessary for the analysis by company size.

³ In fact, the true share (and thus the relevance) of intangibles is even higher, as various intangible assets – for instance internally generated brand names or customer lists – are not represented in the balance sheet.

⁴ The diagram is ‘capped’ at a revenues cut-off of 100 billion Euros to ensure legibility. The analyses throughout this paper do of course incorporate all companies in the data set, including those not shown in figure 1.

⁵ The tables present a 90% critical value only for sample sizes up to $n=500$ (0.179); the critical value for $n=600$ should be even slightly smaller. In any case, the obtained test statistics of 0.96 are far above that value.

⁶ Furthermore, with regard to the brand values mentioned earlier, these are in some cases not even included in the balance sheet’s intangible assets, as only acquired brand names are capitalized, in contrast to internally generated brand names, which must not be recognized in the balance sheet (IAS 38.63).

⁷ The Bartlett's test, which is often applied as standard test for homoscedasticity, must not be used here, as it requires a normal distribution. Furthermore, in contrast to the Levene’s test, which uses the mean, the Brown-Forsythe test uses the median, and is thus the most suitable test for the given purpose.

⁸ In fact, there are various arguments for a higher share as well as several reasons to argue towards a lower share of intangibles given one and the same initial situation of a company respectively a country.

**Why the Future of Transfer Pricing is linked to Improving
the Valuation of Intangibles**

*Oliver Treidler, o.treidler@gmx.de
Berlin, Germany*

Why the Future of Transfer Pricing is linked to Improving the Valuation of Intangibles

Abstract

The current debate on Base Erosion and Profit Shifting (BEPS) may well lead to a paradigm shift in international taxation. The respective reform agenda of the OECD addresses the challenges of valuating intangibles in the context of transfer pricing, aiming at ensuring that transfer pricing outcomes are in line with value creation.

Various political actors perceive the initiated reforms as being insufficient and advocate replacing the main paradigm of international transfer pricing, the so-called the arm's length principle (ALP¹), with a system based on formulary apportionment (FA). The advocacy of FA has gained a position of considerable strength within EU legislation, being embedded in the Commission's proposal for a common consolidated corporate tax base (CCCTB).

This paper will show that FA is ill-suited to account for the increasing impact of intangible assets on the value creation by multinational enterprises and thus does not constitute a panacea for BEPS.

The Economic Impact of BEPS

In its 2013 Report on BEPS the OECD references various headline news stories (e.g. New York Times, Guardian) in order to capture the prevailing public sentiment, namely a growing perception that governments lose substantial tax revenue due to aggressive tax planning (OECD, 2013). The referenced articles describe how MNEs (predominantly US corporations such as Starbucks, Microsoft or Google) manage to reduce their tax burden by taking advantage of differences between national taxation regimes. The development of the effective corporate tax rates of companies listed in the S&P 500 suggests that US based IT firms have been particularly successful in utilizing various sections of the US tax code. In his testimony before a US Senate Subcommittee, Ciesielski demonstrated that the effective tax rate of US based IT firms declined from 27,2% in 2006 to 22,7% in 2011, while for non-IT firms the rate only exhibits a modest decline from 32,0% to 30,1% (Ciesielski, 2012). Optimization of the effective tax rate is commonly achieved by utilizing rather elaborate corporate structures involving holding companies in combination with so-called hybrid companies (e.g. structures such as a "Dutch-Sandwich" or a "Double Irish"). A common feature of such structures is the location of the IP in an entity that is located in a low-tax jurisdiction and to subsequently utilize transfer pricing (royalty payments) to shift a significant part of the corporate profit to this entity².

It should be noted, however, that the effect described by Ciesielski is mostly attributable to an idiosyncratic feature of the US tax code, rather than being representative of widespread tax evasion practices of global MNEs. A plethora of similar studies have presented credible, albeit circumstantial, evidence for the existence of BEPS. Thus the core question to be addressed before embarking on respective reforms seems to be the following: Do scale and scope of aggressive tax planning call for a radical revision of international taxation?

Arguably, the most relevant descriptive empirical evidence to look at in this context is the development of tax revenues on corporate income in relation to GDP. The respective results should be interpreted with caution, as macroeconomic tax ratios will inevitably reflect the interaction of tax policies, location choices by firms as well as general business development. Still, a significant and sustained decrease in revenues from corporate income tax would provide a general indication of an erosion of national tax bases. The corporate income in relation to GDP, however, has been relatively stable over time (at about 3%) and thus provides no indication of significant revenue losses due to BEPS. As explained by the OECD, the general decrease in nominal tax rates since the 1980s was compensated by a broadening of the tax base. Hence, the OECD found that the relationship of corporate income tax to GDP does neither imply the existence or non-existence of BEPS practices (OECD, 2013). Naturally, the analysis conducted by the OECD was not limited to the relationship between corporate income tax and GDP. In fact, the entire second chapter of the Report was devoted to a review of recent studies on BEPS (about 20 in total). The respective conclusion was; "[...] with the data currently available, it is difficult to reach solid conclusions about how

much BEPS actually occurs. Most of the writing on the topic is inconclusive, although there is abundant circumstantial evidence that BEPS behaviours are widespread” (OECD, 2013).

Despite the inconclusive evidence, the European Commission has launched a large scale campaign against BEPS. The theme of the campaign is “the missing part – time to get the missing part back” and it is focussed on communicating that tax fraud, tax evasion and tax avoidance cause devastating damage to society. The missing part, or tax-gap, is quantified at 1.000.000.000.000 (that is one trillion EUR). That estimate of the tax gap also dominates the relevant communication of the European Parliament; “[...] an estimated and scandalous EUR 1 trillion of potential tax revenue is lost to tax fraud, tax evasion, tax avoidance and aggressive tax planning every year in the EU, [...], without appropriate measures being taken in response [...] this loss represents: a danger for the safeguarding of a EU social market economy based on quality public services” (European Parliament, 2013). It is somewhat surprising to learn that this estimate is derived from a single source – a study compiled by Richard Murphy on behalf of the Group of the Progressive Alliance of Socialists & Democrats (Murphy Report – Murphy, 2012). Even in case such a study would be in line with the scientific consensus, it appears reasonable that a political body would confirm its findings by looking at additional studies. Alas, the Murphy Report can hardly be described as being in-line with a scientific consensus. As elaborated above, the OECD has concluded that estimating the impact of BEPS with a reasonable degree of accuracy is not feasible. Further, the tax-gap estimate presented in the Murphy Report has been explicitly challenged as being a significant overstatement – amongst others by the UK government (HMRC, 2012). Despite all criticism that could be voiced against the Murphy Report, it should be noted that it presents a nuanced analysis in; i) admitting that estimating the tax gap is challenging and that results should be digested with care; ii) differentiating between tax evasion and tax avoidance (the latter being entirely legal) iii) Being quite clear on the fact that other studies estimate the tax gap attributable to tax avoidance to be significant lower. Aside from the HMRC study the Murphy Report specifically cites the results of study conducted by the Swedish tax authorities, “Specific reference is made in the report to this relating to transfer pricing and the use of tax havens. Over the whole range of reported tax gaps [...] tax avoidance represents just 8.2% of the total SEK 133 billion gap, but a much smaller part of course of the total tax take of about SEK 1,300 billion, in relation to which it is less than 1%” (Murphy, 2012).

In communicating their measures against BEPS neither the European Commission nor the European Parliament devote insufficient attention to empirical evidence. Even if one would accept the analysis of the Murphy Report at face value, it could be assumed that the respective political motions are worded more carefully. This institutional behaviour should be kept in mind when discussing whether arguments in favour of FA are politically motivated.

The Reform Agenda of the OECD

As stated in the Action Plan of the OECD; “Fundamental changes are needed to effectively prevent double non-taxation, as well as cases of no or low taxation associated with practices that artificially segregate taxable income from the activities that generate it” (OECD, 2013b). The three main pillars of the Action Plan are; i) facilitating coherence of corporate taxation at international level; ii) enhancing transparency as well as predictability and certainty of international taxation and iii) realignment of taxation and substance. The following analysis will focus on the realignment of taxation with economic substance (Actions 8, 9, and 10 of the Action Plan), which is crucial to evaluate transfer pricing outcomes.

In respect to transfer pricing, the OECD specifically focusses addressing the challenges relating to intangibles. The core challenges are adequately assessing the economic value of intangibles and the fact that intangibles (and hence respective profits) can comparatively easily be shifted to low tax jurisdictions. The counter-measures proposed within the Action Plan (Action 8) include; i) adopting a broad and clearly delineated definition of intangibles; ii) ensuring that profits associated with the transfer and use of intangibles are appropriately allocated in accordance with value creation and iii) to develop transfer pricing rules or special measures for the transfer of hard-to-value intangibles. While the Action Plan does not constitute a panacea for BEPS, the measures address the fundamental problems and thus seem generally suitable to improve the effectiveness of ALP. Despite the

evolutionary character of the Action Plan, it would be false to dismiss it as merely curing the symptoms. The counter-measures amount to a significant overhaul the current ALP-based system and have been evaluated as being a “milestone of international taxation” by some analysts (Musil and Schulz, 2013). Considering that the evidence for the existence of BEPS is circumstantial, the evolutionary approach adopted by the OECD seems to be sensible. The emphasis attached by OECD to improving the transfer pricing rules is further documented by its (Revised) Discussion Draft on Transfer Pricing Aspects of Intangibles (OECD 2013c). The Discussion Draft is intended to replace the current provisions of Chapter VI of the OECD Transfer Pricing Guidelines (“TPGs”) (OECD 2010) and constitutes an evolutionary improvement intended to provide clearer guidance on how to apply transfer pricing regulations to intangibles. In this context, Section A of the Discussion Draft is devoted to provide a holistic guidance on identifying intangibles (para. 39-63) including clarifications, e.g.: “In these Guidelines [...] the word ‘intangible’ is intended to address something which is not a physical asset or a financial asset, which is capable of being owned or controlled for use in commercial activities, and whose use or transfer would be compensated had it occurred in a transaction between independent parties in comparable circumstances [...]” (OECD 2013c, para 40). An important distinction is made by the OECD between different categories of intangibles (Section A3). In this context the OECD points out that depending on the relevant facts and circumstances it may be unjustified to allocate a premium return to an enterprise utilizing an intangible (e.g. know-how) that is of non-unique nature. Consequently, the OECD provides following definition; “Unique and valuable intangibles are those intangibles (i) that are not comparable to intangibles used by or available to parties to potentially comparable transactions, and (ii) whose use in business operations [...] is expected to yield greater future economic benefits than would be expected in the absence of the intangible” (OECD 2013c, para 51).

In sum, OECD clearly reemphasizes that the ALP should equally apply to transactions involving intangibles and those transactions which do not. Consequently, any valuation of transactions involving intangibles should be based on the principles outlined in Chapters I through III of the TPGs. Accordingly the OECD emphasizes that; “In cases involving the use or transfer of intangibles, it is especially important to ground the comparability and functional analysis on an understanding of the MNE’s global business and the manner in which intangibles are used by the MNE to add or create value across the entire supply chain (OECD 2013c, para 37). In the Annex to the Draft, the OECD provides 27 Examples to illustrate the guidance on special considerations for intangibles (one of which constitutes the basis for the micro-economic impact assessment conducted below). At this point it is not feasible to assess whether the reforms initiated by the OECD will be successful. To be sure, the OECD Action Plan contains various drawbacks and has been criticised as a “Trojan Horse”, which instead of providing an effective counter-measure against BEPS may create a range of severe additional problems³. On balance, however, it appears likely that the refined guidance on how to cope with intangibles in the context of transfer pricing is suitable for facilitating the realignment of taxation with economic substance.

The Reform Agenda of the European Commission and the European Parliament

In contrast to the rather evolutionary reform agenda of the OECD an increasing number of politicians and scholars advocate adopting more fundamental measures. In this context the European Parliament is one of the more notable advocates of introducing stricter regulations for international taxation. In its Report „on Fight against Tax Fraud, Tax Evasion and Tax Havens”, which was unanimously approved by the Committee on Economic and Monetary Affairs, the Parliament among others (European Parliament 2013):

- Asks the Commission to study the possibility of introducing European taxation on cross-border business models and electronic commerce. Urges the Member States to allocate adequate staff, expertise and budget resources to their national tax administrations and tax audit staff [...].
- Points out that legal proceedings against tax fraud are cumbersome and lengthy, and that those found guilty receive, in the end, relatively mild sentences, making tax fraud something of a risk-free crime [...] Calls on the Commission and the Member States to consider setting up measures to enable the social reuse of funds confiscated through criminal proceedings in cases of tax fraud and tax avoidance; calls, therefore, for a substantial part of the funds confiscated to be reused for social purposes [...].

- Deplores the fact that the Member States have not yet managed to reach an agreement on key legislative proposals such as [...] the 2011 Proposal for a Council Directive on a Common Consolidated Corporate Tax Base.
- Calls on the Member States to agree and implement the directive on a CCCTB by moving gradually from an optional to a compulsory scheme, as defined in its legislative resolution of 19 April 2012 on the proposal for a Council directive on a CCCTB.

The proposals contained in the Report would amount to shifting significant legislative competencies from the Member States to the EU. In the context of transfer pricing the last two proposals (number 4 and number 25 in the Report) directly referring to the CCCTB are of particular relevance. Considering that the Report is comprised of 75 proposals, it appears conceivable that the CCCTB may get lost in the shuffle. By essentially replacing the ALP with FA as the main paradigm of international taxation, the impact of adopting the CCCTB would, however, likely far outweigh the impact of other proposals. Before analysing the impact of such a paradigm shift, it appears worthwhile to recapture the central features of the European Commission's directive on a CCCTB (European Commission 2011):

- Common rules for computing the tax base of companies which are tax resident in the EU and of EU-located branches of third-country companies.
- No intention to extend harmonisation to the rates. Each Member State will be applying its own rate to its share of the tax base of taxpayers.
- A company that opts for the CCCTB ceases to be subject to the national corporate tax arrangements in respect of all matters regulated by the common rules. [Note: Considering the Parliament Report, it is legitimate to question whether CCCTB will be implemented as being "optional"]
- Consolidation constitutes an essential element, as it eliminates transfer pricing formalities and intra-group double taxation. Consolidation necessarily entails rules for apportionment of the result between the Member States in which group members are established [Note: Formulary Apportionment]

Put simply, the first step in applying the CCCTB is to calculate the taxable profit (loss) for an MNE as a whole by aggregating the results of all related companies with the EU. The second step is to allocate the taxable profit to the Member States in which the MNE operates. As stipulated in Article 86 of the Commission's Proposal; "The consolidated tax base shall be shared between the group members in each tax year on the basis of a formula for apportionment. In determining the apportioned share of a group member A, the formula shall take the following form, giving equal weight to the factors of sales, labour and assets [...]". – Note: Intangibles are not included in the "Assets" factor.

$$\text{Share A} = \left(\frac{1}{3} \frac{\text{Sales}^A}{\text{Sales}^{\text{Group}}} + \frac{1}{3} \left(\frac{1}{2} \frac{\text{Payroll}^A}{\text{Payroll}^{\text{Group}}} + \frac{1}{2} \frac{\text{No of employees}^A}{\text{No of employees}^{\text{Group}}} \right) + \frac{1}{3} \frac{\text{Assets}^A}{\text{Assets}^{\text{Group}}} \right) * \text{Con'd Tax Base}$$

Thus, for applying the CCCTB it is no longer required to establish what conditions independent enterprises would have agreed to in order to determine a transfer price. The respective assumption is that the ALP cannot be reliably applied (as, amongst others, it is subject to manipulations). Hence, advocates of the CCCTB generally argue that the apportionment formula is better suited to ensure the alignment of taxation and economic substance. An idiosyncratic feature of the current discussion is that a lack of emphasis regarding the fact that introducing FA would constitute a paradigm shift. It is, however, of the essence to appreciate that FA and ALP do not merely constitute two different technical approaches in the realm of transfer pricing.

A never-ending fight about the desirable paradigm for international taxation

Looking at the theoretical and philosophical-ideological roots of the two methods suggests that curbing the effects of BEPS would merely constitute a by-product of introducing FA. Tax commentators have battled each other for decades, debating the merits and shortcomings of ALP and FA⁴. The ALP has been internationally recognized for about 80 years. While it has been subject to continuous controversies, the consensus regarding the basic features of the ALP significantly contributed to the mitigation of disputes (double taxation) in cross-border transactions. One of

the main controversies, as pointed out by Wittendorf, continues to be whether the ALP is identical to fair value of financial reporting and whether benefits stemming from the relationship among members of a multinational enterprise (“organizational returns”) must be recognized or disregarded⁵. Hence, advocates of FA argue that applying FA “alleviates the conceptual flaw of the arm’s length principle by treating associated enterprises as a single unity for transfer pricing purposes” (Wittendorf 2011, p.248).

The main argument in favour of applying the ALP as main paradigm in international taxation is rather straightforward; its application is based on the facts and circumstances of each specific transaction. Determining what conditions independent enterprises would have agreed to will be highly challenging, mostly because the prevailing circumstances will be unique for each MNE and difficulties in determining the value attributable to intangibles. There is no denying that applying the ALP strongly relies on subjective assumptions. Provided one accepts that transfer pricing is not an exact science and that for most transactions a true (objective) price cannot be determined, the degree of subjectivity, however, should generally be acceptable. Ultimately, the taxpayer as well as the tax authorities will always have to substantiate their respective assumptions. While the burden of proof rests with the tax authorities, the authorities generally have adequate tool box of legal instruments at their disposal to level the playing-field. From a conceptual viewpoint, a consistent application of the ALP will result in an allocation of profits that closely approximates an allocation that could be expected to result on the market. The ALP is conceptually a feasible method for ensuring the alignment of taxation and economic substance in regards to the value-added by the individual taxpayer (as demonstrated below). The philosophical-ideological root of the ALP is that the allocation of the profits should as closely as possible reflect a market-based process.

Arguments in favour of adopting FA ultimately rest on the assumption, that it is superior to the ALP in regards to ensuring the alignment of taxation and economic substance. Advocates of the FA argue further that it is the conceptually pure method, because it accommodates the reality of firm integration and provides a straightforward solution for distributing tax revenues among jurisdictions – thus avoiding the “messiness of the current transactional arm’s length regime” (Cockfield 2004). There are, however, various conceptual flaws inherent in the FA, which render these assumptions to be somewhat questionable. Before addressing these issues, however, it is decisive to focus on the philosophical-ideological root of FA. In contrast to the ALP, the FA deliberately disregards the specific facts and circumstances of each transaction. Instead of basing profit allocation on the unique value-chain of an individual MNE, the profits of all MNEs will be allocated according to one formula. It appears rather implausible to assume that one formula (however well calibrated) will reflect the value-added of heterogeneous MNEs. One crucial aspect this regard is that FA does not account for intellectual property (see above). Considering that for many MNEs intangibles constitute key determinants of the value-added, applying a formula is unlikely to result in a close approximation of taxable profit on the market under comparable conditions. The degree of approximation could arguably be higher when the national or global aggregate is considered. The crucial point is that the philosophical-ideological root of FA does not focus on aligning taxation and economic substance at the level of the individual taxpayer. Instead, under FA national governments will make assumptions regarding the source of the value-added without the taxpayer being able to challenge these assumptions. Hence, the FA is conceptually a feasible method for ensuring the alignment of taxation and economic substance in regards to the different factors of production located in multiple jurisdictions – reflecting an “equitable” allocation of profits. As pointed out by one of the most prominent advocates of FA, Walter Hellerstein: „If one rejects [...] that the purpose of income allocation is to determine the ‘true’ source of income, and embraces instead the view that the purpose of income allocation is to effectuate an equitable division of income, then the theoretical question becomes which of the competing methods better serves this objective. From a theoretical perspective, it would appear to be no more difficult – and probably easier – to translate one’s judgements about an equitable division of income into a formula the apportionment factors of which reflect those judgements [...]” (Hellerstein 2005).

Taking the philosophical-ideological roots of the two methods into account could potentially add much needed depth to the discussion about BEPS. While the ALP is presented as the legal basis (loophole) for tax avoidance schemes, FA is touted as panacea. While it is certainly important to address the merits of this claim, the discussion should address the question whether the paradigm shift described above is desirable. It should be recognized that adopting the FA implies embracing the value judgements imbued in the respective apportionment formula. In this context, a higher degree of harmonization of the EU tax system can arguably be seen as a precondition

for an efficient implementation of the CCCTB. As outlined by Hellerstein; “If there is one lesson for the European Union in the US states’ experience with the choice of apportionment formulas, perhaps it is the manifestation of the strong tension that exists between what might be regarded from a collective viewpoint as a defensible formula for fairly dividing the income tax base among the states and a formula that maximizes an individual state’s economic interests” (Hellerstein 2005).

In sum, it is imperative to recognize that the decision of whether to apply ALP or FA includes a fundamental policy choice about the ultimate aim of international taxation. It should be evident at this point that conceptually FA is not designed to effect a closer alignment of taxation and economic substance for any specific MNE. Consequently, adopting FA cannot correctly be understood constitute an “improvement” compared to the ALP. In other words, the specific challenges posed for the effective application of ALP by BEPS (e.g. valuation of intangibles) are not addressed by FA. Instead, adopting FA effectively shifts the focus of international taxation away from determining assessing the relevant facts and circumstances for a specific MNE towards inter-governmental negotiations about an equitable division of income.

Aligning taxation and economic substance – the Litmus Test for the ALP

A number of macro-economic impact assessments have been conducted in order to quantify the effects of adopting the (C)CCTB. The essence of these studies can be summarized as follows; i) the effective tax burden for MNEs will (on average) remain rather limited; ii) the impact may vary considerably between Member States; iii) when consolidation and apportionment are considered the variation between Member States is significantly more pronounced; iv) there is no significant impact on aggregate welfare (in terms of GDP)⁶. The results should naturally be interpreted with caution, as the actual macro-economic effects will depend on the actual implementation. Taken together, the results strongly suggest that the macro-economic effects will not be decisive, neither from a theoretical nor a political point of view, when deciding whether the ALP or FA constitutes a more desirable paradigm for international taxation. Bearing the philosophical-ideological roots of the methods in mind this is not a surprising insight, as the decision will ultimately depend on the preferences regarding the purpose of income allocation – namely, alignment of taxation and economic substance in regards to the value-added by the individual taxpayer (ALP) or to effectuating an equitable division of income between governments (FA).

The ALP’s role as the paradigm of international taxation has mainly been questioned on the grounds that it proves conceptually ill-suited to ensure alignment of taxation and value creation in an economy that is increasingly globalized and dependent on intangibles. Due to the alleged conceptual shortcomings of the ALP in respect to capturing the economic value of intangibles, MNE’s are enabled to shift profits to low tax countries. As noted above, this challenge is somewhat ill-conceived as BEPS is mostly attributable to elaborate corporate tax structures utilizing rather than to conceptual shortcomings of the ALP. Nevertheless, the valuation of intangibles does constitute a serious challenge for the efficient application of the ALP. In order to capture the scope of the challenges and to assess whether the ALP is conceptually suited to prevent profit shifting and limit the utilization of tax avoidance schemes, it appears helpful to conduct a concise micro-economic impact assessment. In order to illustrate the impact of adopting FA on a micro-level, it appears worthwhile to include the CCCTB in the assessment. Due to the limited scope of this paper, it appears sensible to take a OECD case study as a starting point and to minimize the number of modifications and additional assumptions. The (simplified) example is based on a DCF analysis and following key assumptions (for details, please refer to OECD 2013c (Example 24)):

- Year 0: Company A (parent company) is situated in Country X (tax rate: 30%) and has developed various intangibles (patents and trademarks) relating to Product F. Product F is manufactured in Country X and supplied to affiliated distribution entities throughout the world (“Country W”, tax rate: 10%)
- Year 1: Company A sets-up a subsidiary (Company S) in Country Y (tax rate: 10%), transferring the production as well as the intangibles to Company S. The intangibles have a remaining “useful life” of five years.
- The distribution entities consistently sell 1000 of Product F annually. Revenues are expected to remain constant for the next 5 years. The selling expenses (SG&A) are constantly 100.
- Company A’s cost of goods sold (COGS) for Product F is 600; for the same volume Company S’s COGS are 500.

- An appropriate (arm's length) routine functional return for manufacturing is 5% of COGS. For the routine distribution function 2% of sales are considered arm's length. The discount rate (DCF) is set at 14%
- Three scenarios are considered; i) status quo (Year 0); ii) Company S manufacturing product F and selling to distributors (for simplicity cessation of Company A is assumed); iii) Company S acting as contract manufacturer on behalf of Company A (intangibles remain with Company A)
- The quantitative assumption for calculating the allocation of profits under CCCTB are the following:
 - scenario i) Company A (Sales: 0; Payroll: 300; Employees: 100; Assets: 200); Distributors (Sales: 1000; Payroll: 50; Employees: 25; Assets: 20)
 - scenario ii) Company S (Sales: 0; Payroll: 200; Employees: 100; Assets: 200); Distributors (as above)
 - scenario iii) Company A Sales: 0; Payroll: 20; Employees: 2; Assets: 5) Company S (Sales: 0; Payroll 200; Employees 100; Assets 200); Distributors (as above).

TABLE 1: CASE STUDY

Scenario i)						
Company A	Year 1	Year 2	Year 3	Year 4	Year 5	NPV
Revenues (internal)	880	880	880	880	880	
COGS	600	600	600	600	600	
Operating Income	280	280	280	280	280	
Taxes (30%)	84	84	84	84	84	
Profit - ALP NPV (14% DR)	172	151	132	116	102	673
<i>Profit - CCCTB NPV (14% DR)</i>	<i>107</i>	<i>94</i>	<i>82</i>	<i>72</i>	<i>63</i>	417
Distributors	Year 1	Year 2	Year 3	Year 4	Year 5	NPV
Sales	1000	1000	1000	1000	1000	
COGS	880	880	880	880	880	
SG&A	100	100	100	100	100	
Operating Income	20	20	20	20	20	
Taxes (10%)	2	2	2	2	2	
Profit - ALP NPV (14% DR)	16	14	12	11	9	62
<i>Profit - CCCTB NPV (14% DR)</i>	<i>100</i>	<i>87</i>	<i>77</i>	<i>67</i>	<i>59</i>	390
Scenario ii)						
Company S	Year 1	Year 2	Year 3	Year 4	Year 5	NPV
Revenues (internal)	880	880	880	880	880	
COGS	500	500	500	500	500	
Operating Income	380	380	380	380	380	
Taxes (10%)	38	38	38	38	38	
Profit - ALP NPV (14% DR)	300	263	231	202	178	1174
<i>Profit - CCCTB NPV (14% DR)</i>	<i>180</i>	<i>158</i>	<i>138</i>	<i>121</i>	<i>107</i>	704
Distributors	Year 1	Year 2	Year 3	Year 4	Year 5	NPV
Profit - ALP NPV (14% DR)	For ALP the P&L of the Distributors remains as in scenario i)					62
<i>Profit - CCCTB NPV (14% DR)</i>	<i>136</i>	<i>119</i>	<i>105</i>	<i>92</i>	<i>80</i>	532

Scenario iii)						
Company A	Year 1	Year 2	Year 3	Year 4	Year 5	NPV
Revenues (internal)	880	880	880	880	880	
COGS	525	525	525	525	525	
Operating Income	355	355	355	355	355	
Taxes (30%)	106,5	106,5	106,5	106,5	106,5	
Profit - ALP NPV (14% DR)	218	191	168	147	129	853
<i>Profit - CCCTB NPV (14% DR)</i>	5	5	4	4	3	22
Company S	Year 1	Year 2	Year 3	Year 4	Year 5	NPV
Revenues (internal)	525	525	525	525	525	
COGS	500	500	500	500	500	
Operating Income	25	25	25	25	25	
Taxes (10%)	2,5	2,5	2,5	2,5	2,5	
Profit - ALP NPV (14% DR)	20	17	15	13	12	77
<i>Profit - CCCTB NPV (14% DR)</i>	174	153	134	117	101	681
Distributors	Year 1	Year 2	Year 3	Year 4	Year 5	NPV
Profit - ALP NPV (14% DR)	For ALP the P&L of the Distributors remains as in scenario i)					62
<i>Profit - CCCTB NPV (14% DR)</i>	135	118	104	91	80	527

As emphasized by the OECD, in order to determine an arm's length compensation for the intangibles, the (realistically) available options for both the seller (Company A) as well as the buyer (Company S) have to be considered. The NPV determined in scenario i (673) constitutes the minimum ask price of Company A. Provided the production cost savings could be captured by outsourcing the production to a routine entity (without transferring the intangibles - scenario iii) the minimum ask price would be 853. The maximum bid-price of Company S would be 1.174 (scenario ii). Hence, application of the ALP yields a valuation of the intangibles falling within the range of 853 to 1.174. Depending on the underlying assumptions (e.g. useful life of the intangible, anticipated revenues, production cost savings) it the arm's length range can be rather broad. The Achilles heel of the ALP in the context of valuating intangibles can thus be seen in a comparatively high degree of uncertainty which is often be perceived as a lack of accuracy.

In order to assess whether the accuracy of applying the ALP is sufficient for ensuring alignment of taxation and economic substance, the above comparison with the CCCTB is rather instructive. This, admittedly oversimplified, case study illustrates the dramatic consequences of adopting the CCCTB from the perspective of an individual taxpayer (including many SMEs). Under each of the scenarios, the relative share of the total profit allocated to the Distributors according to the CCCTB is significantly higher than the distribution resulting from applying the ALP. While the Distributors are allocated about 42% of the profits (pre-tax) according to CCCTB, they receive between about 5% and 8% of the group profits when ALP is applied. In case the profits are primarily attributable to the characteristics of Product F (i.e. the respective intangibles) as assumed above, the profit allocation according to the CCCTB is divorced from economic substance. In case the functional and risk profile of the Distributors truly corresponds to that of a low risk distributor, an operating margin of 2% appears to more or less accurately capture the economic value added contributed by these entities (even an operating margin of 4% would merely result in about 14% of the group profits being allocated to the Distributors). As intangibles are excluded from formulary apportionment, the CCCTB is conceptually ill-suited to account for the increasing importance of intangibles for the value creation by multinational enterprises. In other words, even accounting for

the uncertainty involved in the valuation of intangibles when applying the ALP, the alignment of taxation and economic substance on the micro-level will generally be superior to an allocation based on FA.

Improving the Valuation of Intangibles - Vindicating the ALP

Based on the arguments outlined above, it can be surmised that the discussion on BEPS has been somewhat misguided – at least insofar as it relates to transfer pricing. Neither scale nor scope of BEPS seems to necessitate a radical revision of international taxation. Adoption of the proposed CCCTB, however, would amount to a watershed in international taxation. In contrast to the political rhetoric, replacing the ALP with FA will not result in a closer alignment of taxation and economic substance, particularly on the micro-level. Some of its advocates portray FA as a 21st century approach to international taxation, by arguing that the ALP was originally framed about a century ago and has failed to keep up with changes in the global economy⁷. As demonstrated above, there is little merit to this claim, as CCCTB is conceptually ill-suited to account for the value-added attributable to intangibles. The bottom line is that an “optimal” paradigm for international taxation does not exist. The decision between ALP or FA boils down to subjective ideological preferences regarding the ultimate aim of international taxation, namely alignment of taxation and economic substance in regards to the value-added by the individual taxpayer (ALP) or to effectuating an equitable division of income between governments (FA). An honest debate on the future of transfer pricing should acknowledge the philosophical-ideological roots of the two methods.

Those preferring to retain the ALP as the paradigm of international taxation (including the author of this paper) will be forced to find ways to improving the efficiency of the ALP. In this context, the reform agenda of the OECD, particularly on the transfer pricing aspects of intangibles, constitutes a welcome first step. In order to successfully vindicate the ALP, it will be particularly vital to limit the degree of uncertainty involved in the valuation of intangibles. Respective efforts should be devoted towards ensuring that the transfer of intangibles within MNE approximates market conditions as closely as possible. Enhancing the accuracy of the valuation of intangibles will help to credibly demonstrate that transfer pricing based on the ALP does not facilitate profit shifting by MNEs. In turn the political agenda my focus on the more relevant challenges in this respect, such as addressing the other five pressure areas of international taxation identified by the OECD, such as hybrid mismatch arrangements and treaty shopping.

In terms of enhancing the efficiency of the ALP, the efforts of academics and professionals in the field of international taxation and transfer pricing would likely benefit from a more intensive cooperation with experts from various fields of business studies. Worthwhile subjects for cooperative research could be:

- Value Chain Analysis: How to identify the value-added of intangibles? How to differentiate between market and organizational returns (e.g. see endnote 5)? How to improve a more nuanced and theoretically sound approach to distinguish between entrepreneurial and routine functions?
- Valuation of Intangibles: How to more accurately evaluate specific intangibles in the context of transfer pricing (patents, know-how, customer base etc.)? How to increase the reliability of DCF based evaluations (hypothetical arm’s length test)? Here the focus will be on i) ensuring more reliable and transparent underlying assumptions (e.g. useful life of intangibles) and on ii) conducting a transparent simulation of a negotiation between two related parties in order to determine a more refined arm’s length range (e.g. BATNA of the two parties)
- Others Issues: How to account for the entrepreneurial role in the (digital) knowledge economy? How to assess the transfer of knowledge within a MNE from a transfer pricing perspective (e.g. relocation of function or precondition for organizational returns?)

I am afraid, that given the limited scope of this paper, it was merely feasible to scratch the surface of the link between the valuation of intangibles and transfer pricing. Ideally, this paper will nevertheless make a small contribution towards a more informed (nuanced) debate about BEPS. The main lesson here is that while the efficiency or the ALP in terms of aligning taxation and value-added is constrained by a significant degree of uncertainty in respect to the valuation of intangibles, it does capture the economic reality of value creating by MNEs much more accurately as the CCCTB. In other words there is no compelling rationale for adopting the CCCTB other than philosophical-ideological preferences in respect to shifting the nucleus of international taxation to the macro-level. On the micro-

level, the effects of such a paradigm shift would likely be of substantial magnitude. Considering the comparatively limited scale of the challenges presented by BEPS, such a radical change of the institutional framework seems disproportionate and should be scrutinized much more critically. In this context, aside from ideological considerations, an evolutionary approach appears much more sensible. In ensure (public) political support of the ALP as the paradigm of international taxation, however, it will be required to substantially improve the efficiency of the ALP by reducing the degree of inherent uncertainty. In case the above presentation of some main aspects succeeds in sparking the interest of some researchers from the fields of business studies to apply their expertise and effort to the transfer pricing aspects of intangibles this paper was not written in vain.

References

- [1] Ciesielski, J. (2012), Testimony Concerning APB 23 Exception on Indefinitely Reinvested Earnings - Before the U.S. Senate Permanent Subcommittee on Investigations of the Committee on Homeland Security and Governmental Affairs, September 20, 2012.
- [2] Cockfield, A. (2004), Formulary Taxation Versus the Arm's Length Principle: The Battle Among Doubting Thomases, Purists, and Pragmatists. In: Canadian Tax Journal, 2004, Vol.52 No.1., pp.114-123.
- [3] European Commission (2011), European Commission (2011), Proposal for a COUNCIL DIRECTIVE on a Common Consolidated Corporate Tax Base (CCCTB), Brussels, COM(2011) 121/4, 2011/0058 (CNS).
- [4] European Parliament (2013), Report - on Fight against Tax Fraud, Tax Evasion and Tax Havens - Committee on Economic and Monetary Affairs, (2013/2060(INI)), May 2, 2013.
- [5] HMRC (2012), Closing the tax gap: HMRC's record at ensuring tax compliance: Government Response to the Committee's Twenty-ninth Report of Session 2010–12, First Special Report of Session 2012–13.
- [6] Li, J. (2004), Tax Sovereignty and International Tax Reform: The Authors's Response. In: Canadian Tax Journal, 2004, Vol.52, No.1., pp.141-148.
- [7] Murphy, R. (2012), Tax Research UK: Closing the European Tax Gap – A report for Group of the Progressive Alliance of Socialists & Democrats in the European Parliament.
- [8] Musil, A. and Schulz, J. (2013), Grenzüberschreitende Einkünfteverlagerungen in verbundenen Unternehmen und europarechtliche Handlungsspielräume der Mitgliedstaaten, in: DStR, 42/2013, S. 2205ff.
- [9] OECD (2010), OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, OECD Publishing.
- [10] OECD (2013), Addressing Base Erosion and Profit Shifting, OECD Publishing.
- [11] OECD (2013b), Action Plan on Base Erosion and Profit Shifting, OECD Publishing.
- [12] OECD (2013c), Public Consultation – Revised Discussion Draft on Transfer Pricing Aspects of Intangibles, 30 July 2013.
- [13] Wittendorf, J. (2011), The Arm's-Length Principle and Fair Value: Identical Twins or Just Close Relatives? In: Tax Notes International (Special Report), April 18 2011, pp.223ff.
- [14] *Please refer to the end notes and/or contact the author for additional references.*

End Notes

¹ The ALP constitutes; “The international standard that OECD member countries have agreed should be used for determining transfer prices for tax purposes. It is set forth in Article 9 of the OECD Model Tax Convention as follows: where ‘conditions are made or imposed between the two enterprises in their commercial or financial relations which differ from those which would be made between independent enterprises, then any profits which would, but for those conditions, have accrued to one of the enterprises, but, by reason of those conditions, have not so accrued, may be included in the profits of that enterprise and taxed accordingly’” – OECD 2010, p. 23.

² For an illustration of BEPS related tax structures, see OECD (2013), Annex C

³ In the context of intangibles Eilers emphasizes that an excessively broad definition (e.g. a Blackberry constituting a permanent establishment) would likely result in intense distributional conflicts regarding taxable revenue between governments - Eilers, S. (2013), BEPS – Eine Abkürzung saniert noch keinen Haushalt, in: v. Wartenberg et al. Steuerpolitik im Wahlkampf – ifst-Schrift Nr. 489 (2013), pp. 33-38.

⁴ Note: For a concise and entertaining summary, see Cockfield (2004) and Li (2004); Cockfield categorizes the tax commentators as either; “Doubting Thomases” (i.e. those favouring ALP, e.g. Oates and O’Brien), “Purists” (i.e. those advocating FA – e.g. Hellerstein and Li); Pragmatists (i.e. those proposing an incremental reforms without overthrowing ALP, e.g. Cockfield himself).

⁵ As explained by Wittendorf (p.239); “The total profits of a multinational enterprise may thus be broken down into a market return, which is attributable to the production factors, and an organizational return, which is attributable to the form of organization. The market return is similar for associated enterprises and independent enterprises, but the organizational return is distinctly different for associated enterprises. The crucial question is whether economies of integration should be considered under the arm’s-length principle.” (This “conceptual flaw” is readily acknowledged by the OECD – See OECD (2010), p.34).

⁶ For those interested in the macro-economic impact assessment, I recommend; i) Spengel, C. et al. (2012), A Common Corporate Tax Base for Europe: An Impact Assessment of the Draft Council Directive on a CC(C)TB, World Tax Journal, October 2012, pp.185ff.; ii) Oestreicher, A. et al., (2009), Common Corporate Tax Base (CCTB) and Effective Tax Burdens in the EU Member States, in: ZEW Discussion Paper No.09-026.; iii) European Commission (2011b), Impact Assessment - Accompanying document to the Proposal for a COUNCIL DIRECTIVE on a Common Consolidated Corporate Tax Base (CCCTB), Brussels, 16.3.2011 SEC(2011) 315 final.

⁷ A common example of popular criticism against the ALP can be seen in Picciotto, S. (2012), “Towards Unitary Taxation of Transnational Corporations” – tax justice network, December 2012.

**Knowledge Management for Knowledge Development: Lessons Learnt While
Implementing International Projects by Multicultural Teams**

*Carmen-Laura ZARZU,¹ clzarzu@yahoo.com
Cezar SCARLAT, cezarscarlat@yahoo.com
University "Politehnica" of Bucharest, Romania*

Knowledge Management for Knowledge Development: Lessons Learnt While Implementing International Projects by Multicultural Teams

Abstract

Development and Technical Assistance (DTA) projects as a means for donors to transfer knowledge to recipient groups and organizations represent a clear case of managing knowledge transfer. DTA international projects support capacity building and sustainability, covering a wide range of knowledge areas, from technical to social, from political to environmental. Besides the specific expertise of the implementation team, there are the managerial knowledge and skills of the leader that facilitate relationships of team members with the locals and between team members. Most of know how comes through communication that comes through tacit knowledge.

As the focus of the DTA international projects is on continuous strategic improvement or organizational learning, they rely considerably on mutual understanding relationships – from information to knowledge to wisdom sharing. So, in order to assist knowledge management and development in the host organization, the implementation team needs to master knowledge management within the team. It looks that knowledge management and managing cultural diversity of a group are parallel processes – which is one of the main conclusions of the study.

Keywords: Development & Technical Assistance (DTA), International projects, Cultural diversity, Project management, Implementation team, Knowledge transfer management

Current DTA projects focus on innovation

More and more development and technical assistance (DTA) projects focus on capacity building and sustainability, heavily grounded on the transfer of knowledge, while employing project management and knowledge management. Often times DTA projects are built around new technologies and innovative solutions, hence knowledge transfer is a central point in project management. Even if in many cases theoretically prevails transfer of explicit knowledge - inventories of information relating to the new processes, there is always important accompanying transfer of tacit knowledge. Since donors are increasingly stressing innovation as a key condition for funding development and technical assistance projects, knowledge management is equally increasing in importance.

The challenge for a project manager is to organize and locate relevant content and expertise, necessary in the course of completing objectives and tasks in the planned timeframe. The goal for the project manager is to attain the goals with the resources allocated and make the best of those. Success depends on the optimal blend of people, and equipment, skills and knowledge. Generally the design stage focuses on comprehensive inventory of information, technologies, systems, strategies - knowledge that should be transferred, while in the planning stage best key experts are recruited to deliver that information. Filling the gap sometimes neglects the preparedness of the beneficiaries to absorb that amount and format of information, and also their willingness to change. The simplest innovation project spills over affecting social relationships, beliefs and values of the impacted group.

Transfer of knowledge induces changes of cultures

It is a fact that knowledge is critical to effective leadership, design and implementation of systems and projects, while linked to cultural norms and beliefs (Kakabadse, Kouzmin, & Kakabadse, 2001). However, the value of knowledge depends on the capacity of the group to transfer, share and exploit it, as basis for problem-solving and for the decision making processes. Knowledge also gathers truths, beliefs, and judgments conveyed through behaviors and communication, being influenced by and influencing at the same time the organizational culture. Since knowledge contributes to improved performance, building innovation, and competitive advantages, project managers have to turn to account the management of knowledge towards attaining objectives.

In his model March (1991) considers that an organization is defined through the beliefs of the members about the reality, or better said, through the knowledge that individuals have about the environment. Since the reality is one, it means the organization perceives the environment through the eyes of people. Just imagine a conversation between an Albanian and a Romanian, for example; if beyond verbal communication body language is used there might be problems since nodding the head has opposite meaning for each of them, and each decodes the message according to inherited culture. The level of knowledge of one organization is in fact the proportion of correct representation of the reality. However, the organizational code doesn't distinguish between true and false beliefs with respect to the reality, which is observed through the lenses of specific culture (individual, group, organizational, national). At the same time, the culture may be considered as the response of a group to the environment, surrounding reality, meaning that the group shares the same set of beliefs and values (Hofstede, Hofstede & Minkov, 2010).

From a different perspective the organizational culture represents the sum of knowledge that an individual, group or organization acquires in a given period of time, in the process of solving survival problems with respect to the surrounding environment and also solving internal integration (Schein, 2010). Hence, DTA projects along with new, innovative solutions transfer tacit and explicit knowledge, building new lives and new cultures. Knowledge transfer foregoes organizational learning which, for a team may be possible only if members have collaborative relation, and may be exploited if the attitude of the individuals and relationships lead to synergies.

Knowledge transfer and organizational learning

Considering that a team is actually a group of people that work together in order to attain an objective, interact and communicate information and ideas about the ways to reach the best decisions which would support members achieving maximum potential. Knowledge flows from individuals to teams, to organizations, and each transfer enriches the quantity and quality of knowledge, and after each transfer individuals, teams or organizations are richer, in a continuous spiral of learning (FIG. 1). Along with the transfer of knowledge the people may learn new habits, or even values, and acquire new cultural traits or trends in a perpetual transformation.

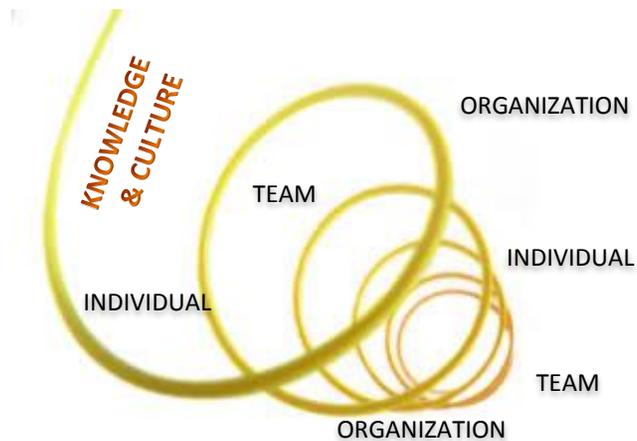


FIG. 1

DTA projects implementing innovation have to control the transfer of both explicit knowledge, in the codified format, but more importantly, they have to transfer the tacit knowledge to the recipient organization or group, which is many times difficult to express in the terms of reference. Experts have to teach beneficiaries to operate the equipment, technologies, systems and knowledge, the so-called know-how. The explicit knowledge, available many times without intervention has to be internalized and practiced, and the process involves direct communication, socialization, extensive personal contact and interaction. Lack of trust precludes transfer of tacit knowledge; hence

individuals, in building confidence, exchange beliefs and views, and learn unconsciously cultural differences that shape the way people perceive the surrounding environment, the world in general. In knowledge management the most sensitive aspect is the capacity to share, which is a function of level of trust and culture (Jennex, 2008). But DTA projects may introduce the risk of deculturalization of the recipient group in the effort to transfer tacit knowledge; hence experts should master communication for reconciliation of cultures and actually build partnerships. Examples from business are always strong evidences, like the case of the Renault – Nissan alliance (Cacciaguidi – Fahy & Cunningham, 2007), where cross-cultural operational teams took a long time observing both home environments before starting to work together. It was necessary to build effective intercultural business communication, and overcome intercultural differences to reach goal congruence. It was more than a business joint venture it was created a collaborative venture focusing on cross-cultural synergies (transfer of knowledge and cultures).

Organization's structure is determined by the flow of information and relationships between members. Individuals of an organization are influenced and influence at their turn the flow of information and the interactions between the members of the group. And thus the main vehicle for information transfer, communication, may be hampered, or facilitated by the cultural diversity. Communication contributes at the same time to strengthening group culture while altering original cultures of the members, through information exchange with members of different groups. While homogenous groups, from a cultural point of view, use high context communication, which contributes to easier transfer of tacit knowledge, culturally heterogeneous groups rely on low context communication, and transfer of primarily explicit knowledge (Hall & Hall, 1990). Thus, transfer of tacit knowledge calls for special relationships in the group.

DTA projects in multicultural environments are designed to transfer explicit knowledge, with expectations beyond that. Since stakeholders are rarely familiar with each other prior to the inception of the project, the communication plan is based on low context communication. In the implementation process, as team is established and members get to understand and at least tolerate cultural differences, a new parlance sees the light and blends the different styles, and culturally connects the team members. It is generally after the team has passed the forming, storming and norming stages and reached the performing stage (Tuckman, 1965), that transfer of tacit knowledge is feasible, in the context of a new culture, ephemeral, for the duration of the team.

From authors' experience the influence of cultural diversity on knowledge transfer is different if the implementation team is created to last longer or if it is a team of various short-term experts gathered for a complex technical assistance project. A team of experts would transfer explicit knowledge more efficiently, in spite of the diversity of its members not only from a cultural point of view, but also as areas of expertise, background, managerial and communication skills. Even though such a team is hardly manageable, since each expert acts like a manager, at least in his/her own area of competence, in the transfer of knowledge process predominates explicit knowledge, as a prerequisite of the terms of reference. The real value added of a DTA project is if the experts convey not only explicit knowledge, not even tacit knowledge, but guide beneficiaries to internalize the explicit knowledge and to some extent to turn tacit knowledge into explicit knowledge. It may happen that the experts never actually form a team, they do not pass through all stages (from forming to performing), and remain individuals in a group that comply with a set of rules and procedures. If the team is meant to last longer, in the same format for the whole duration of the project, then team building is more important, accommodating acknowledgement and tolerance of cultural differences, and transfer of tacit knowledge sometimes exceeds the transfer of explicit knowledge.

Cultural diversity impacts knowledge transfer

Knowledge management includes people, processes, culture, or technology, thus the organization gathers knowledge through the beliefs of those people, which leads towards a specific organizational culture. Knowledge management helps the organization in the learning process (Sanchez, 1996). Superior utilization of knowledge comes from sharing and storing information and, according to the Knowledge Spiral of Nonaka & Takeuchi (1995), tacit knowledge should be converted into explicit knowledge, and this includes team building, communication, and cultural disclosure. At its turn culture influences managerial processes (Hofstede, 2010) mainly through communication (code,

channel, feedback, interpretation, context), decision making process (problem definition, information gathering, analysis, alternative identification, implementation), motivation (depending on cultural dimensions masculinity-femininity and control of uncertainty), leadership style (depending on cultural dimensions power distance and individualism-collectivism), models and organizational structures (depending on cultural dimensions power distance and uncertainty avoidance).

Also, the SECI model of knowledge dimensions (Nonaka, 1991) reveals that the transfer of tacit knowledge (to tacit or to explicit), is strongly impacted by the cultural diversity of the group members, as well as the internalization in own mental models, hence each situation has its own specific due to the cultural differences.

Tacit knowledge that covers the internalized knowledge of which individuals are not aware includes or even coincides with specific cultural traits, while the explicit knowledge represents the assumed resources used in order to consciously complete tasks. From a different angle, knowledge has a content prospective and a relational prospective – and while the first one can be stored in a codified inventory, the relational prospective shows knowledge depends on the specific location, organization, environment – depends also on the specific culture. It is like the same picture is projected on different canvas, of different colors, and though the source is identical the results have individual aspects (FIG. 2). While the processes and frames are similar, the results are not identical. Practically, DTA projects, projects in general, may not be perfectly replicable. There is always the human, cultural factor; there is a different environment that empowers differently the transfer of knowledge. Ideally implementing agencies (should) have appropriate procedures for the design and management of projects to cope with cultural diversity in the process of knowledge transfer, and train managers to act accordingly.

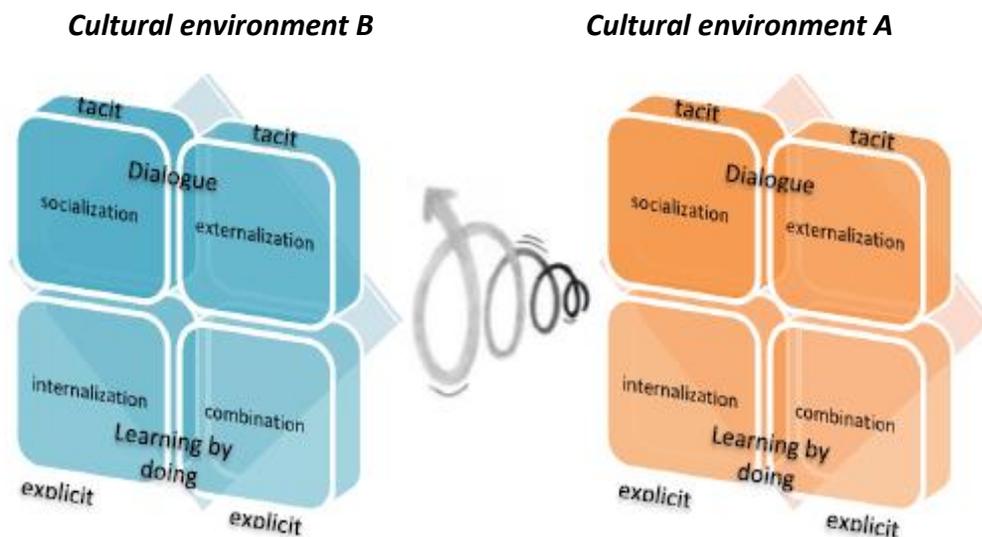


FIG. 2

It is a loop as new knowledge, abundant knowledge into an entity, group, team, community determines changes, it comes with alternatives to the old habits and challenges known values. But as soon as people understand, internalize, accept the novelty the culture itself may be influenced. And all it is about communication and community, about cooperation and exchange.

Replicating best practices

Davenport's definition (1994) specifies that knowledge management actually contributes to identifying, developing and utilizing organizational knowledge. Thus knowledge management represents a tool for project management, both converging to attaining goals, improving performance, making use of experience and lessons learned. Starting from the definition of Davenport (1994) "Knowledge management is the process of capturing, distributing, and effectively using knowledge". It is justified to interpret that a team is taking advantage of a real asset, which many times is difficult to measure and store.

DTA project management, especially involving multicultural teams, leads to retention of "best practices" or "lessons learnt" described as organizational learning towards improving processes and performance. But this is precisely the core principle of knowledge management – a dynamic process of creating new knowledge, finding new sources of knowledge, for the implementing or donor organization. Actually it is converting tacit knowledge extracted from the lessons learnt into reusable explicit knowledge, which may be codified and saved and transmitted. Experienced experts would find appropriate ways to transfer tacit knowledge to various groups from different cultures. Every implementation in every organization would be unique due to the unrepeatability of cultural environment, thus experts should "speak every language" actually to communicate in any culture.

One example from authors' experience is relevant for the impact of cultural diversity in the implementation of DTA projects. In 1992 UNIDO initiated a UNDP financed project in Romania for the promotion of SMEs, with a local team of experts managed by an experienced expat and receiving support from international experts. The main activities included provision of information and guidance to entrepreneurs to start or to develop their business, assistance offered to entrepreneurs to apply for loans or grants, organizing seminars, completion and publication of guides for entrepreneurs and finance for non-financial managers, feedback to governmental institutions. Being extremely successful UNIDO initiated a program to replicate the project in other developing countries, and thus members of the Romanian team became managers of similar projects in other developing countries, with the precise task to clone the project. The experience in Albania, in 1995 – 1997, with the bulk of knowledge already available, verified and organized, was not a success. The Albanian team had the opportunity to spend time with the Romanian team, with intensive and extensive training, and learn firsthand from almost four years of experience. Unfortunately, the project achieved modest results, partially due to the social unrest, but mainly due to the different attitude towards entrepreneurship and different approach to knowledge, and specific ways to transfer knowledge. Evaluation considered the local conditions, and also the skills of the manager as main causes of the poor results. But the same project document (only numbers being adapted to the local conditions and population) was then implemented in Kazakhstan, 1997 – 1999, by the same manager with similar resources. There were same information, same books to be translated and published, same management style, same procedures, though results were totally different. This team did not benefit from a similar internship to observe directly a successful example, and had less comprehensive training, but results were beyond expectations. The evaluation acknowledged the project design, the local conditions and skills of manager. The transfer of knowledge, tacit and explicit was efficient, one explanation being the compatibility in communication within the team and with the rest of stakeholders. The output in this case was very tangible and practical. The three projects of this example were similarly designed, procedures were similar, just cultural environments were different, and it made the difference.

Even not explicitly all times, to some extent project management contains, as built in, the knowledge management. A team leader has to organize resources and activities towards achieving specific goals. It takes knowledge and experience for an individual to match tasks and people with the required expertise and to facilitate team relationships in such a manner that all knowledge and expertise is put at work synergistically. For project and knowledge management should be a coordinator, a sponsor interested in reporting lessons learned. And this is valid for most of the technical assistance projects and initiatives. For industrial projects report and evidence of lessons learnt is mostly applied in the case of contractors or big international companies that have to develop and implement projects in various places, with different teams of diverse people. For example organizations like UNO or the World Bank have specialized departments to deal with various types of projects in specific regions. Also companies like IBM, Ford or Renault have to take into consideration locals' specific in managing projects and knowledge in order to expand businesses. These communities of practice (Wenger & Snyder, 1999) share lessons learned in order to take advantage of opportunities and better manage people and processes, and to some extent they function similarly with multicultural teams.

Conclusion

One of the strong points of international organizations, including those providing development and technical assistance is that they represent large, well organized networks essential for knowledge transfer and dispersion (Mudambi, 2002). It is a two ways process, and on one hand organization may provide knowledge to assisted communities in order to strengthen them, while absorbing knowledge from assisted communities and taking advantage of lessons learned. Communication and transfer of knowledge may be more or less efficient depending on the level of context of the communication, thus team absorbing differently the information based on the cultural specific.

Project managers operate with knowledge management, which at its turn depends on the way team is lead, and how cultural diversity is capitalized towards harnessing knowledge within the team. Thus strategies focus on proper utilization of the human assets, being knowledge, experience, skills or abilities. The wise use of knowledge depends on how data becomes information and then is turned into knowledge to make people wiser.

It is important to exploit both the exploratory dimension of the knowledge, creation, innovation as well as the transfer dimension of the established knowledge. Within a team both dimensions contribute to achieving objective, as members are invited based on their knowledge, experience, and competences in order to use those in a creative problem solving manner. In other words a project is a medium for creation and transfer of knowledge. Hence the communication between team members becomes increasingly critical and cultural diversity may hamper or facilitate the proper use of advantages.

Even though knowledge may be treated as objective, and may be coded, inventoried, shared, and transferred in the end it all depends on organizational culture, and it becomes very subjective (Nonaka & Takeuchi, 1995). This is the reason why organizations providing technical assistance need clear stages for evaluation, before, during and after the project or intervention closure.

Useless to say, DTA projects are about sharing knowledge, and replicating lessons learnt, which calls for an organizational language to enable individuals to understand and internalize it. More and more organizations need a cross-cultural language to communicate that knowledge and those lessons learnt.

REFERECES

- [1] Cacciaguidi – Fahy, S., & Cunningham, J. (2007) The Use of Strategic Metaphors in Intercultural Business Communication. *International Research Journal*, vol. 5, number 2.
- [2] Davenport, T. (1994). Saving IT's Soul: Human Centered Information Management. *Harvard Business Review* 72 (2): 119–131.
- [3] Hofstede, G., Hofstede, G.J., & Minkov, M. (2010). Cultures and Organizations – Software of the Mind – Intercultural Cooperation and Its Importance for Survival. *Mc Graw Hill, New York*
- [4] Jennex, M.E. (2008). Knowledge Management: Concepts, Methodologies, Tools, and Applications. *Hershey, PA: IGI Global. pp. 1–3808*
- [5] Kakabadse, N., Kouzmin, A., & Kakabadse, A. (2001). From Tacit Knowledge to Knowledge Management. *Leveraging Invisible Assets Knowledge and Process Management Volume 8 Number 3 pp 137–154*
- [6] March, J., (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2, 1, 71-87
- [7] Mudabi, R. (2002). Knowledge Management in Multinational Firms. *Journal of International Management* 8
- [8] Nonaka, I., & Takeuchi, H. (1995). The knowledge creating company: How Japanese Companies Create the Dynamics of Innovation. *New York: Oxford University Press.*
- [9] Nonaka, I. (1991). The knowledge creating company. *Harvard Business Review* 69 (6): 96–104.
- [10] Sanchez, R. (1996). Strategic Learning and Knowledge Management. *Wiley, Chichester*
- [11] Schein, E. (1990) Organizational Culture. *American Psychologist*, vol. 45, nr. 2
- [12] Tuckman, B. (1965). Developmental sequence in small groups. *Psychological Bulletin*, 63(6), pp 384–399.
- [13] Wenger, E., & Snyder, W.M. (1999). Communities of practice: The organizational frontier. *Harvard Business Review*, 78(1), 139-145.

End Notes

¹Corresponding author

Human capital management and development

**“Explaining Knowledge Sharing Behaviours through
an Organizational Form- and Motivation-Based Perspective”**

*Vincenzo Cavaliere, vincenzo.cavaliere@unifi.it
Department of Business and Economics, School of Management and Economics,
University of Florence, Florence, Italy*

*Sara Lombardi¹, slombardi@luiss.it
Department of Business and Management,
LUISS Guido Carli University, Rome, Italy*

“Explaining Knowledge Sharing Behaviours through an Organizational Form- and Motivation-Based Perspective”

Abstract

The importance of knowledge resources leads companies to adopt organizational forms likely to foster learning and knowledge sharing processes. However, for such processes to occur, employees should be motivated to initiate and feed them. Despite several studies focus on new organizational forms and many others on motivational issues for investigating organizational behaviors, a comprehensive view simultaneously exploring both organizational structure and the joint effect of intrinsic and extrinsic motivation (i.e. crowding effect) on knowledge sharing behaviour is missing.

Based on this, we posit that extrinsic motivation moderates the relationship between intrinsic motivation and knowledge sharing, as well as between integrative mechanisms and knowledge sharing. We test our hypotheses on survey data collected from 754 workers of 23 international manufacturing firms.

Our findings support our argument, suggesting practitioners to be aware of the complexity involved in designing flexible structures and providing rewards. The paper concludes by highlighting directions for future research.

Keywords: knowledge sharing, motivation crowding-effect, integrative mechanisms, new organizational forms, rewards

Introduction

The increasing relevance of knowledge resources has lead companies to move from hierarchical structures to organizational forms likely to foster learning and knowledge sharing (Daft and Lewin 1993). However, as knowledge resides in humans’ minds, it won’t be shared and exploited unless the individual will be willing to do so. Managers should thus care about the motivation underlying employees’ behaviours and, more precisely, about the dynamic relationship between intrinsic and extrinsic motivation (i.e. crowding effect) which drive them (Osterloh et al. 2001).

Despite several studies focus on new organizational forms, little work on how it actually relates to intra-organizational knowledge processes exists. Particularly, a comprehensive view investigating how structural and motivational factors jointly affect employees’ knowledge sharing behaviour is missing.

Building on the importance of the dynamics of motivation to new organizational forms (Osterloh et al. 2002), we aim at extending this field of study by looking at the management of motivation as a source of influence on the relationship between organizational forms and knowledge sharing. By empirically examining data of 754 workers from 23 international manufacturing firms, our purpose is to address the following research questions: “how does individuals’ motivation crowding effect influence knowledge sharing behaviours?” and “what’s the impact of extrinsic motivation on knowledge sharing behaviours when organizational integrative mechanisms are in place?”.

In so doing this paper hopes to contribute to the main conference topic by shedding light on the importance of strengthen interpersonal relationships and rethinking the role of extrinsic rewards, which rarely contribute to the individual and collective performance.

At the same time, it implicitly addresses the micro-foundations of resource development by focusing on individuals’ behaviors, critical to the organization’s success.

Theoretical Background

New Organizational Forms

The evolution of the competitive environment occurred over the last decades has forced companies to become aware that firms’ sustainable competitiveness relies on individuals’ knowledge and that, accordingly, the most strategic innovations are those exploiting individuals’ human capital (Foss 2002).

Given that knowledge is at the heart of organizational design (Holmström and Roberts 1998), most organizations have adopted organizational forms likely to foster the development of knowledge assets. The notion

of 'new organizational forms' indeed identifies new ways of structuring the organizations' boundaries and governing their internal relations (Foss 2002), often seen as the typical way of organizing in the knowledge economy.

Knowledge Sharing Processes

Effectively managing knowledge requires an appropriate knowledge sharing strategy, which help avoid the loss of strategic intellectual capital whenever employees leave the organization. Knowledge sharing (henceforth, KS) is a social interaction culture which stimulates individuals to mutually exchange experiences and know-how (Lin 2007), which may help solve problems and develop new ideas. Thus, it stimulates individuals to think critically and express their creativity while ultimately leading to enhance firm's innovation capability.

However, sharing knowledge is seldom a voluntary act, rather, it often follows a request. Accordingly, the literature distinguishes between two dimensions of KS: one related to the voluntary transfer of intellectual capital to others, the other identifying the process of specifically asking colleagues for help (Lin 2007).

Given that the two KS sub-processes have different nature and can be influenced by different factors, they can be analyzed separately. Here we conceive KS as resulting from others' request for knowledge.

Motivation Crowding Effects

In line with extant literature, intrinsic and extrinsic motivation are not additive as standard economists assume; human behaviour is rather simultaneously influenced by both of them (Frey and Jegen 2002). Although organizational behaviour studies have widely benefitted from Motivation Crowding Theory, existing research has left the analysis of the individuals' motivation crowding effect on KS processes almost unexplored. This is consistent with the knowledge-based view, which looks at individuals as 'benevolent cooperators' (Dosi and Marengo 2000), neglecting incentive issues and assuming that no individuals' opportunistic behaviours exist (Conner and Prahalad 1996).

Hypotheses Development

Intrinsic Motivation and Knowledge Sharing Behaviours

Employees' intrinsic motivation is likely to influence employees' KS behaviours (Brock et al. 2005). It leads individuals to perform an activity for its inherent satisfaction and interest rather than for other consequences it may produce. It is a critical element in cognitive, social, and physical development, because "it is through acting on one's inherent interests that one grows in knowledge and skills" (Ryan and Deci 2000: 56).

Intrinsically motivated workers tend to value knowledge generation for its own sake, to be curious, and not to feel threatened by different views; likewise, they are more likely to raise mutual trust and social capital (Osterloh and Frey 2000) and to look for learning opportunities. According to this, we posit that:

Hypothesis 1: Employees' intrinsic motivation is positively associated with their knowledge sharing behaviours within the organization.

Organizational Integrative Mechanisms and Knowledge Sharing Behaviours

Classic organization theory literature states that the need for sharing knowledge is contingent upon the interdependency between units and departments (Thompson 1967), which calls for integrative mechanisms to be implemented. Integrative mechanisms help establish communication channels between organizational parts (Mintzberg 1979) while facilitating knowledge dissemination and acquisition (Gupta and Govindarajan 2000). Particularly, horizontal coordination, usually consisting of teams and integration roles, is positively linked to communication and information needs, as it allows flexibility in task execution and provides a rapid solution whenever a need for KS arises. Given this, we hypothesize that:

Hypothesis 2: The implementation of organizational integrative mechanisms is positively associated with employees' knowledge sharing behaviours within the organization.

Motivation Crowding-out Effect

External incentives may undermine individuals' intrinsic motivation in two ways (i.e. crowding-out effect; Frey and Jegen 2002): when they perceive an external factor to be controlling their action, on one hand they react by reducing their self-determination because a shift in the locus of control from inside to outside the individual occurs; on the other hand, their self-esteem is lowered as they feel that their competences are not really valued.

This argument is particularly relevant when organizations seek to enhance individuals' KS orientations. Being knowledge a public good, it is likely that people may free ride on the efforts of others (Osterloh and Frey 2000) by benefitting from the collective advantages of organizational knowledge exchange, without personally contributing to the joint effort. This may be due to the fact that knowledge processes outcomes are hard to observe and to measure and, as such, make opportunistic behaviours more likely to occur. Based on this, we posit that:

Hypothesis 3: The positive association between employees' intrinsic motivation and their knowledge sharing behaviours is weakened when extrinsic rewards for KS are in place.

Interaction between Extrinsic Rewards and Integrative Mechanisms

Highly integrated organizations, equipped with cross-level communication channels, often fail in their attempt to foster KS activities, because of rewards systems which motivate employees to adopt individualistic behaviours, that is to motivate individuals to do something in order to achieve a separable outcome (Ryan and Deci 2000), such as career progression, bonuses, etc.

Therefore, even when the organization is formally implementing cross-level integrative mechanisms aimed at linking all organizational units, departments or work groups and increasing KS activities, an extrinsic reward system is likely to play a negative role in influencing individuals' KS behaviours. Given this, we offer the following hypothesis:

Hypothesis 4: The positive association between organizational integrative mechanisms and employees' knowledge sharing behaviours is weakened when extrinsic rewards for KS are in place.

The above discussion is summarized in the research model illustrated in Fig. 1 below.

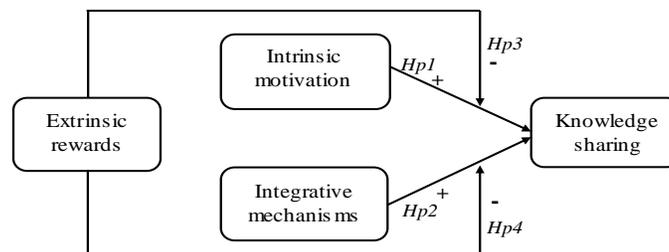


FIGURE 1: THE RESEARCH MODEL

Method

Data Collection

After pilot testing the questionnaire with managers of three companies, we collected web-survey data from 23 manufacturing firms located in a critical economic area in Central Italy (Tuscany) and operating in international markets. Together with the Human Resource Directors, we selected a sample of participants among those considered nodes of knowledge as they operate at the center of strategic information flows and possess information and knowledge critical to the firm's activity.

Out of the 1503 invitations sent out for participation in the survey, 754 questionnaires were filled in (50.1% response rate).

Measures

To operationalize all variables, we used self-reported measures (Spector 1994) and scales adopted in previous studies, based on multiple items and a seven-point Likert type scales.

Van den Hooff and Van Weenen's (2004) scale provided was used to measure our dependent variable, i.e. KS behaviour, conceived of as the process of sharing knowledge with those who ask for information. Responses are measured on a seven-point Likert scale ranging from 1 = "Strongly disagree" to 7 = "Strongly agree".

Intrinsic motivation was measured using Wasko and Faraj's (2000) scale and extrinsic rewards' four items were derived from Hargadon (1998) and Davenport and Prusak (1998) who ask for the extent to which respondents would like KS behaviours to be compensated with external factors. Both variables were measured on a seven-point Likert scale ranging from 1 = "Strongly disagree" to 7 = "Strongly agree". The measure of integrative mechanisms is derived from Gupta and Govindarajan (2000) whose measurement scale was anchored by 1 = "Seldom" and 7 = "Frequently".

We include the following control variables in the empirical analysis: employees' age and education level (years of education), whether they play a managerial role (dummy variable, 1=Yes, 0=Else), job autonomy (scale from Hackman and Oldham 1974; 1 = "Strongly disagree", 7 = "Strongly agree") and ICT use (scale adopted from Lee and Choi 2003; 1 = "Strongly disagree", 7 = "Strongly agree").

Results

Descriptive statistics and correlation coefficients are reported in Table 1. Most of the Cronbach alpha coefficients are above the minimum acceptable value of .70 (Nunnally 1978), while the integrative mechanisms' measure falls just below this criterion. However, we build on Peterson (1994) and agree that .60 may be the 'criterion-in-use'.

In order to test our hypotheses, we ran a hierarchical multiple regression analysis using Stata, whose results are illustrated in Table 2. In particular, Model 1 contains only the control variables, Model 2 includes all first-order associations between KS and intrinsic motivation, extrinsic rewards, and integrative mechanisms, respectively; Model 3 adds the first interaction postulated in Hypothesis 3 and Model 4 adds the second interaction posited in Hypothesis 4.

Before generating the interaction terms, we centered the three variables (i.e. intrinsic motivation, extrinsic rewards, and integrative mechanisms); accordingly, we ran the analysis by including also the other variables after centering them, with the only exception of the managerial role, being a dichotomous variable. Furthermore, in order to detect the presence of multicollinearity among explanatory variables, for each model we calculated the variance inflation factor (VIF). The VIF values are presented together with the regression results in Table 2.

As for control variables, we found that the ICT use as well as job autonomy is positively associated with employees' KS behaviours, that older employees are less oriented toward engaging in KS and that whether they play a managerial role in the firm matters - although the negative and significant impact emerges only when the explanatory variables are added (see Model 2-4, $\beta = -.14$, $p < .05$). Conversely, employees' education does not have a significant impact on their willingness to share knowledge.

The findings provide evidence about the positive association between individuals' intrinsic motivation and KS participation (see Model 2, $\beta = .44$, $p < .001$; Model 3 and Model 4, $\beta = .45$, $p < .001$) and integrative mechanisms and KS behaviours (see Model 2-4, $\beta = .07$, $p < .01$). Hypothesis 1 and Hypothesis 2 are thus supported. Moreover, the analysis shows a significant and negative moderator effect of extrinsic rewards on the relationship between employees' intrinsic motivation and the dependent variable (see Model 3, $\beta = -.06$, $p < .05$; Model 4, $\beta = -.04$, $p < .10$), therefore supporting Hypothesis 3. Finally, we found evidence about the moderating role that extrinsic rewards play in the relationship between integrative mechanisms and employees' KS behaviours. In this regard, Model 4 reveals that the relationship postulated in Hypothesis 4 is strongly significant ($\beta = -.04$, $p < .001$).

In order to better interpret these results, Fig. 2 and Fig. 3 illustrate the interacting relationship between, respectively, extrinsic rewards and intrinsic motivation, and extrinsic rewards and integrative mechanisms. As can be seen from Fig. 2, extrinsic rewards are more effective for low intrinsically motivated employees, who tend to increase their knowledge sharing involvement in case their behaviour is rewarded with extrinsic incentives.

Conversely, when employees are highly intrinsically motivated (dotted line), the implementation of reward systems for knowledge sharing behaviors leads them to decrease their participation in social interaction and information exchange.

As regards the interaction between extrinsic rewards and integrative mechanisms, Fig. 3 shows that the influence of reward systems is even stronger. Hence, when both variables take high values (i.e. high extrinsic rewards for knowledge sharing and high degree of organizational flexibility and horizontal coordination), employees are found to be less oriented toward sharing knowledge with others, than the case in which, beside high extrinsic rewards, the organization is rather mechanistic. In other words, those who perform best in terms of knowledge sharing orientation are those working within highly integrated organization and with low extrinsic rewards provided. When high integrated mechanisms are coupled with high extrinsic rewards, the potential value of helping individuals interact with each other is decreased.

Table 2 also illustrates the variation of the R2 as the variables are added in the analysis. We found that it increases from .16 in Model 1 to .35 in Model 4, thus indicating that our model is able to explain the 35% of the variance of the phenomenon of interest (i.e. employees' KS behaviours). More importantly, even though the most relevant increase in the R2 is determined by adding the main effect of the explanatory variables (see Model 2), the F-test is always highly significant, also when adding the first and second interaction (i.e. respectively, Model 3 and Model 4).

TABLE 1: DESCRIPTIVE STATISTICS AND CORRELATION MATRIX FOR ALL VARIABLES (N=754)

*Correlation is significant at the .05 level. *Alpha coefficient is shown in italics on the diagonal.*

	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9
1. Knowledge sharing	6.00	.94	2	7	<i>.84</i>								
2. Intrinsic motivation	6.39	.84	1	7	<i>.47*</i>	<i>.96</i>							
3. Extrinsic rewards	3.87	1.67	1	7	<i>.10*</i>	<i>.03</i>	<i>.85</i>						
4. Integrative mechanisms	4.35	1.42	1	7	<i>.22*</i>	<i>.20*</i>	<i>.07*</i>	<i>.64</i>					
5. ICT use	4.65	1.67	1	7	<i>.19*</i>	<i>.14*</i>	<i>.12*</i>	<i>.34*</i>	<i>.76</i>				
6. Autonomy in the job	5.31	1.34	1	7	<i>.33*</i>	<i>.20*</i>	<i>.04</i>	<i>.26*</i>	<i>.18*</i>	<i>.90</i>			
7. Age	40	8.51	22	71	<i>-.04</i>	<i>.03</i>	<i>-.08*</i>	<i>-.01</i>	<i>.06</i>	<i>.13*</i>	<i>-</i>		
8. Years of education	16	2.88	6	10	<i>-.02</i>	<i>.03</i>	<i>-.06</i>	<i>.21*</i>	<i>.02</i>	<i>-.03</i>	<i>-.17*</i>	<i>-</i>	
9. Managerial role	-	-	0	1	<i>-.02</i>	<i>.07*</i>	<i>-.21</i>	<i>.25*</i>	<i>.04</i>	<i>.19*</i>	<i>.27*</i>	<i>.14*</i>	<i>-</i>

TABLE 2: RESULTS OF MULTIPLE REGRESSION ANALYSIS FOR KNOWLEDGE SHARING (N=754)

t statistics in parentheses; † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

	Knowledge sharing			
	Model 1	Model 2	Model 3	Model 4
Intercept	6.07*** (127.44)	6.09*** (144.49)	6.09*** (146.19)	6.09*** (147.84)
ICT use	0.09*** (4.48)	0.03† (1.72)	0.03† (1.87)	0.04* (2.14)
Autonomy in the job	0.24*** (7.85)	0.18*** (6.08)	0.17*** (6.02)	0.17*** (6.21)
Age	-0.01* (-1.72)	-0.01* (-1.72)	-0.01* (-1.72)	-0.01* (-1.72)

	(-2.27)	(-2.38)	(-2.32)	(-2.37)
Level of education	-0.00	-0.01	-0.01	-0.01
	(-0.50)	(-1.29)	(-1.17)	(-1.19)
Managerial role	-0.11	-0.14*	-0.14*	-0.14*
	(-1.63)	(-2.27)	(-2.29)	(-2.24)
Intrinsic motivation		0.44***	0.45***	0.45***
		(10.00)	(10.80)	(10.91)
Extrinsic rewards		0.02	0.0274	0.02
		(1.38)	(1.56)	(1.44)
Integrative mechanisms		0.07**	0.07**	0.07*
		(2.77)	(2.66)	(2.69)
Extrinsic rewards*Intrinsic motivation			-0.06*	-0.04†
			(-2.49)	(-1.72)
Extrinsic rewards*Integrative mechanisms				-0.04***
				(-3.35)

R^2	0.16	0.33	0.34	0.35
F-test	19.05***	41.60***	6.20**	11.22***
Vif	1.10	1.17	1.16	1.15

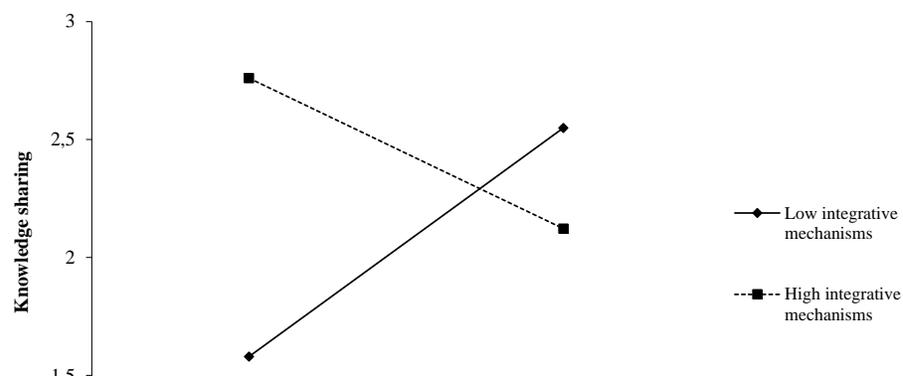
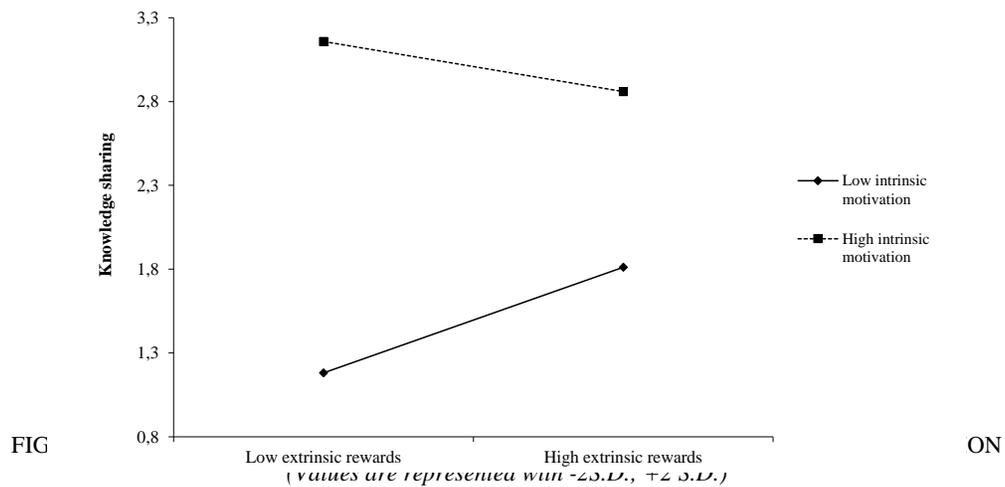


FIGURE 3: INTERACTION BETWEEN EXTRINSIC REWARDS AND INTEGRATIVE MECHANISMS
(Values are represented with -2S.D.; +2 S.D.)

Concluding Comments

This paper investigates KS behaviours by combining an organizational perspective (i.e. integrative mechanisms) with an individual one (i.e. motivation). By empirically examining a sample of 754 employees from 23 international manufacturing firms, we found evidence about the positive effect played by both individuals' intrinsic motivation and organizational integrative mechanisms on employees' KS behaviours as well as about the moderating and negative impact of extrinsic rewards reducing such positive effects. Overall, the results demonstrate the power of extrinsic motivators as effective moderators likely to shape individuals' actions and to lower the impact of organizational mechanisms aimed at increasing social interaction.

We did not find significance about the main effect of extrinsic rewards on our dependent variable (i.e. KS behaviours), confirming the existing lack of consensus about whether and how extrinsic incentives directly affect employees' KS behaviours.

Contribution and Implications

We believe that this paper provides interesting theoretical and practical contributions. First, it stresses the importance of providing an appropriate motivation management strategy, pointing to the need to avoid the crowding out effect of intrinsic motivation, which drives much of the employees' contribution to the organizational objectives (Osterloh and Frey 2000). Second, simultaneously analyzing both intrinsic and extrinsic motivation offers a more realistic view on the antecedents of individuals' behaviours. Third, investigating the way organizational integrative mechanisms affect KS behaviours is consistent with the literature supporting the organizational forms as a critical management tool which helps the organization align its strategy to the competitive forces (Dijksterhuis et al. 1999), by adopting the organizational form more likely to succeed (Lam 2000). Fourth, contributing to expand the literature on intra-organizational KS is always important because of its critical role in improving the firm's innovation capability and competitiveness. Accordingly, studying KS antecedents may allow managers to understand what really matters for it to occur.

Limitations and Directions for Future Research

Despite the potential we think is included in the paper, we are aware of its limitations. Given that data collection was limited to organizations operating in a highly specific area (i.e. Tuscany), the results may not be applicable to firms from different countries. Replicating the study on foreign companies could make our results more robust.

Moreover, cross-sectional data preclude from investigating possible endogenous effects in our model, so that one may derive alternative causal explanations regarding our hypotheses. Further research based on experimental or longitudinal data may help investigate the direction of causality.

Furthermore, the paper focuses only on certain individual and organizational KS enablers; future research could take into account other factors such as other types of individual motivation or other organizational factors. In order to enhance the self-perceptual assessment of KS activities, we think that an objective measure of them may be built by collecting, for instance, third-party and archival data.

References²

- [1] Bock, G. - W., Zmud, R. W., Kim, Y. - G., & Lee, J. - N. (2005). Behavioral intention formation in knowledge sharing: examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, 29, 87-111.
- [2] Conner, K. R., & Prahalad, C. K. (1996). A resource-based theory of the firm: Knowledge versus opportunism. *Organization Science*, 7, 477-501.
- [3] Daft, R. L., & Lewin, A. Y. (1993). Where are the theories for the “new” organizational forms? An editorial essay. *Organization Science*, 4(4), i-vi.
- [4] Davenport, T., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*, Cambridge, MA: Harvard Business School Press.
- [5] Dijksterhuis M. S., Van den Bosch, F. A. J., & Volberda, H. W. (1999). Where do new organizational forms come from? Management logics as a source of coevolution. *Organization Science*, 10(5), 569-582.
- [6] Dosi, G., & Marengo, L. (2000). On the tangled discourse between transaction cost economics and competence-based views of the firm: Some comments. In N. J. Foss and U. Mahnke, eds, *Competence, governance and entrepreneurship*. Oxford: Oxford University Press, pp. 80-92.
- [7] Foss, N. J. (2002). Introduction: New organizational forms – Critical perspectives. *International Journal of the Economics of Business*, 9(1), 1-8.
- [8] Frey, B. S., & Jegen, R. (2002). Motivation crowding theory. *Journal of Economic Survey*, 15(5), 589-611.
- [9] Gupta, A. K., & Govindarajan, V. (2000). Knowledge flows within multinational corporations. *Strategic Management Journal*, 21, 473-496.
- [10] Hackman, J. R., & Oldham, G. R. (1974). *The job diagnostic survey. An instrument for the diagnosis of jobs and the evaluation of job redesign projects*, New Haven, CT: Yale University.
- [11] Hargadon, A. B. (1998). Firms as knowledge brokers: lessons in pursuing continuous innovation. *California Management Review*, 40, 209-227.
- [12] Holmström, B., & Roberts, J. (1998). The boundaries at the firm revisited. *Journal of Economic Perspectives*, 12, 73-94.
- [13] Lam, A. (2000). Tacit knowledge, organizational learning and societal institutions: An integrated framework. *Organization Studies*, 21(3), 487-513.
- [14] Lee, H., & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: an integrative view and empirical examination. *Journal of Management Information Systems*, 20, 179-228.
- [15] Lin, H. (2007). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower*, 28, 315-332.
- [16] Mintzberg, H. (1979). *The structuring of organizations*, Englewood Cliffs, NY: Prentice Hall.

End Note

¹ Corresponding Author.

² Contact author for the list of references

Communities of Practice's dark sides
Some evidences from a retailer organization¹

Fabio Fraticelli, f.fraticelli@univpm.it
Enrico Cori, e.cori@univpm.it
Università Politecnica delle Marche, Italy

Francesca Negri, francesca.negri@unipr.it
Università degli Studi di Parma, Italy

Communities of Practice's dark sides Some evidences from a retailer organization

Abstract

Communities of Practice (CoP) are seen as a good opportunity for organizations to improve their own performance. When people with a shared passion join a CoP, they are able to add value to organizations, for example by helping drive strategy, or by exploring new lines of business. When members of a CoP choose a Social Network Website as a “place” to host their meetings and to share their thoughts, the practice performed within a CoP becomes public and - at least potentially - a corporate reputation issue arises. By analysing 62 pieces of content (posts) produced by 5.063 members across 6 weeks within a CoP hosted on Facebook and created by Italian employees of the French Company “Auchan”, we show how a “good” organizational practice can affect negatively the reputation of a company.

Keywords: *Community of Practice, Reputation, Social Networking Sites, Retail*

Introduction - Social Media Community of Practice and Corporate Reputation

This paper relies on the study of side effects of communities of practice (CoP), namely on those activities that are potentially in conflict with the main and publicly declared objectives (statements) of the company to which the CoP's members belong.

A Community of Practice is a group of people regularly engaged in sharing and learning, based on their common interests (E. C. Wenger & Snyder, 2000). According to scholars, there are three elements that render a Community of Practice. The first element is a well defined “domain”, i.e. one or multiple themes that are discussed by people who join the community. When a domain is clearly defined, members are stimulated to actively participate the debate, and they share ideas with others (Amabile, 1997; Csikszentmihalyi, 1997; Polanyi & Sen, 2009). The second element is “the community”, broadly defined as a number of people that share a finite social space and that are joint together by similar ideas and a shared sense of commitment (Bender & Kruger, 1982; Etzioni, 1995). The third element is “the practice”, namely the specific knowledge that the community creates about the domain. The practice is made of the whole set of ideas, tools and information that are generated by members (Argyris, Putnam, & Smith, 1987; Schön, 1983).

When members don't use physical interactions and meetings in order to develop their own practices, a “distributed” Community of Practice arises. There are several reasons why community's members use technology as the preferred way for communicate: sometimes they live in different countries, sometimes they are a huge number, sometimes they belong to different organizations or cultures. In all these cases, they choose not to use physical meetings as the main mode to connect with each other. For this reason, distributed CoP are also labelled as “virtual” CoP (Dede, 1996) or - more generically - “online” CoP (Figallo, 1998; Kim, Oh, & Swaminathan, 2006; Palloff & Pratt, 1999; Preece, 2000).

The above mentioned considerations about CoP are still valid in a virtual Community of Practice. In this case, many of the characteristics of the CoP are transliterated into a virtual space (like a website) where members can “meet” and share their practice. This behaviour is even more emphasized on social network websites, where the whole technological experience is built in order to favourite interactions among members and sharing of their experiences and opinions. As for any other virtual CoP, “social media CoP” use technology as the preferred medium for communication, but they enrich its “connective” function also by leveraging technology to share, comment and create content and practices that may not even exist outside of the social network website.

By exploiting an informal environment, in a CoP people with a shared passion are able to add value to organizations, for example by helping drive strategy, or by exploring new lines of business. For this reason CoP is considered a good way to reinforce commitment among organization's members, to make the learning curve of new employees shorter (Brown & Duguid, 1991) and to unveil insights, stories and frustrations among employees (E. Lesser & Prusak, 1999). When an organization is able to manage this groups, by addressing its members' cognitive

efforts into a unique flow, there is an increase of the social capital (E. L. Lesser & Storck, 2001). CoP are therefore viewed as a common context, in which relationships and connections are reinforced.

Because of the regular engage in sharing and learning of their members, CoP are considered as “enhancer of organizational performance” (E. L. Lesser & Storck, 2001). In particular, CoP are seen as good tools for problem solving, seeking of experience or information’s requesting, as well as discussion enhancing or knowledge mapping (E. Wenger, 2011). Thanks to the practice developed inside communities with shared interests, organizations are suitable to become more and more performative, because of the decrease in the learning curve of new employees (Brown & Duguid, 1991), the speeding up of response to customer needs and inquiries, the reduction of unhelpful or unrequired rework and the generation of new ideas for products or services.

Given the above background regarding CoP, in the past 20 years a wide range of contributions, mostly empirical or analytical, has been developed in order to validate CoP as a “good” organizational practice. The shared perspective about Communities of Practice is that they should be encouraged and stimulated: more specifically, a significant fringe of the literature is supporting the idea that CoP can be “cultivated”, namely helped to stay active and alive. According to this perspective, Community of Practices aren’t suitable to be “strictly” addressed - i.e. being designed to achieve a specific objective - but they can be “energized”, in order to maintain their learning capability (E. Wenger, McDermott, & Snyder, 2002). Despite the contributors’ effort to mitigate an “absolute rationale approach”, the idea of recognizing to CoP’s the ability to create value for the general organization (through the generation of collective knowledge and the positive effects on learning curve), is based on the assumption that the relationship between CoP’s behaviour and organizations’ strategy is knowledgeable and relatively actionable.

This approach appears as feasible for offline or even virtual Community of Practice, but it could be less valid when employees decide to use social network sites as a place to share their practices. Social Networking Sites (SNSs), such as Facebook, have become a major place of conversation, and the expression of experiences, attitudes and opinions, for people and companies, but when they are used as CoP, a tension potentially arises among preserving authenticity of the Community (namely, “cultivating it”) and maintaining the companies’ reputation, since members’ practices are available to the general public. Conversations in the Internet exist, like it or not to the companies, and this can have a deep impact on the perception of the corporate stakeholders: in a research perspective, how an employee’s Social Media Community of Practice affects the company reputation?

Corporate reputation has attracted interest from a wide range of academic disciplines (Chun, 2005; Fombrun & Riel, 1997):

- Accounting: reputation seen as an intangible asset and one that can or should be given financial worth;
- Economics: reputation viewed as traits or signals. Perception held of the organization by an organization’s external stakeholders;
- Marketing: reputation viewed from the customer or end-user’s perspective and concentrating on the manner in which reputations are formed;
- Organization: reputation viewed as the sense-making experiences of employees;
- Strategy: reputation viewed as assets and mobility barriers. Since reputations are based on perception, they are difficult to manage.

In order to answer this question, in this paper we are referring to “corporate identity and reputation” concepts introduced by a number of contributions lying both on an organizational and on a marketing-oriented literature.

According to this perspective, corporate identity (Fombrun, 1996) describes the set of values and principles that employees and managers associate with a company. Whether widely shared or not, a corporate identity derives from a company’s experiences, since it is founding its cumulative record of success and failures. Everyone of us, however, recognizes a company by its name and by the many presentations it makes to describe its actions, its plans, and intentions: namely we recognize a company by its corporate image. Sometimes a corporate image accurately mirrors the company’s identity; more often than not, the image is distorted (a) as the company tries to manipulate its public through advertising and other forms of self-presentation, or (b) as rumors develop by the unofficial statements of employees to peers, analysts, and reporters (Fombrun, 1996).

Corporate reputation embodies the general estimation in which a company is held by employees, customers, suppliers, distributors, competitors and the public (Fombrun, 1996). The key point is that “reputation consists of

perceptions – how others see you” (Fombrun, 1996). Customers expect reliability, investors and suppliers demand credibility, employees expect trustworthiness and communities expect responsibility. According to this perspective, it is useful to consider the “corporate reputation” as the summary view of the perceptions held by all relevant stakeholders (Chun, 2005), that is what customers, employees, suppliers, managers, creditors, media and communities believe the organization stands for, and the associations they make with it.

Given this background, we can state that corporate reputation deals with the gap that arises when the corporate image differs from the identity that the company tries to build through official communication (Davies & Miles, 1998; Fombrun, 1996): identity, desired identity and image (

FIG. 1).

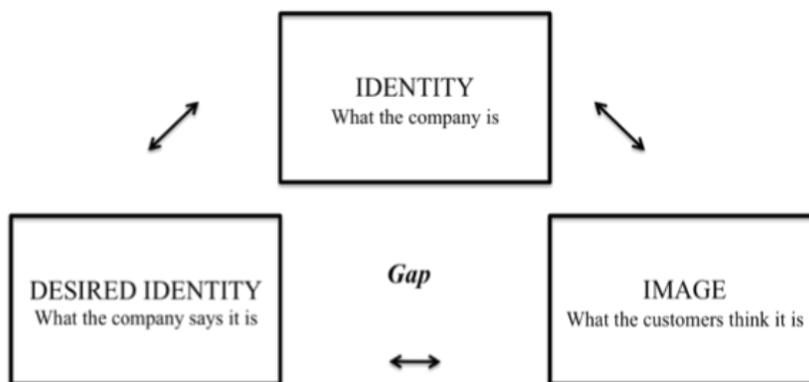


FIG. 1: KEY ELEMENTS OF CORPORATE REPUTATION

The Fombrun’s model sees the negative influence of employees’ rumors on corporate reputation as a “pathological” situation in a company’s life. In our case, however, we are interested in understanding if and how the dynamics expressed by the model can be confirmed also in a “physiological” situation: we are proposing a case in which an organizational practice which should have a positive impact on performance, could potentially increase the gap between the image and desired identity.

In other terms, we are looking for dark sides of CoP, namely we are studying unexpected (and undesired) effects of CoP on corporate reputation. This paper aims to investigate this issue, through the usage of the Fombrun’s model.

Methodology

The Social Network Sites are new online contexts that have become a precious source of data for researchers that can find a lot of spontaneous and intense conversations about a wide variety of topics. Accordingly to the above-mentioned literature, we analysed a CoP developed “inside” a Social Network Site, namely a “social media CoP”.

Content analysis is the technique often used to analyse transcripts of asynchronous, computer-mediated discussion groups in formal educational settings (De Wever, Schellens, Valcke, & Van Keer, 2006), and given the exploratory nature of this paper, we decided to use latent content analysis as main technique for data analysis. Literature review points out that content analysis using web data collected in a CoP can be carried out by professional and academic researchers with significant advantages (such as greater accuracy, timeliness, and lower cost compared to the offline alternative) in organizational and marketing research. As mentioned earlier, we preferred to use a latent content analysis with respect to a manifest one. We therefore run towards a process of identifying, coding, and categorizing the primary patterns in the data not just by counting the occurrence and frequency of specific words, but by searching for macro-topics within context, namely coding participants’ intent in the context (Mayan, 2009). This

specific technique is generally called “Thematic Analysis” (Guest, Macqueen, & Namey, 2012) and consists of the identification of “discourse patterns” through the assignment of “labels” that are able to summarize concepts and ideas represented by a post. We choose not to define labels in advance, but only during the reading of posts. We therefore analysed 62 pieces of content (posts) produced by 5.063 members of a social media CoP across 6 weeks. The content analysis produced 103 different codes, which were condensed in 7 content topics.

Moreover, in order to add meaning to the main categories that have been derived by the content analysis, and to determine the attitude of informants with respect to different topics, we introduced a sub-categorization built on “rating scales” that were based on the sentiment analysis of each content (Pang & Lee, 2005).

To ensure an ethical research approach, we identified ourselves in the Group, providing our credentials and subscribing the Group. Data collection is composed by: (1) dataset: the data directly traced from the computer-mediated communications of online community members, and (2) field notes: the data that we inscribed regarding observations of the community, its members, interactions and meanings.

The data analysed for the study are detailed in TABLE 3.

TABLE 3: THE DATA SET

<i>Metric</i>	<i>Value</i>
Group Members	5.063
Number of post analyzed	62
Sharing Index (average)	19,7 like
Timeline of conversations	28th, April, 2014 - 8th, June, 2014

Through the content analysis in a virtual CoP managed by employees of a major FMCG retailer, the paper aims to highlight:

1. What and How the CoP is sharing;
2. The potential reputational risk for the company due to CoP conversations.

The virtual CoP pinpointed is held on Facebook by the FMCG retailers’ own employees in the form of “open group” with 5063 members. The virtual CoP on Facebook matches the Kozinets’ guidelines (2010), being: relevant, active, interactive, substantial, heterogeneous, and data-rich.

3. The Case - A retailer's Reputation

Auchan is a privately owned France-based grocery retailer: in 2013, Groupe Auchan operates in 15 countries (including Italy), employs 302.500 people, and generates € 62.1 in revenue including taxes for the chains. More than a market leader, Auchan is fundamentally a channel champion, with large hypermarkets representing ca. 80% of its global sales: according to Planet Retail’s Report (2013), Auchan has emerged as one of the Top 3 global hypermarket operators. However, Auchan is not short on challenges due to increased competition in its home market, its wide exposure to crisis-hit southern Europe and aggressive expansion from local players in the BRIC countries. This is forcing the retailer to constantly innovate in order to remain one step ahead. Auchan set an ambitious long-term goal to achieve sales of EUR 100 billion by 2017. The original 2015 deadline was pushed back due to the economic downturn in Europe and eroding like-for-likes. Its status as a privately-held company, owned by its founding family, also puts it in a largely unique position. Auchan has more freedom to pursue long-term visions, independent of the short-term demands of financial markets, which pays off when it comes to entering difficult markets or perfecting new store concepts.

The shared mission of the French retailer is: “To improve the purchasing power and the quality of life of the greatest number of customers, with responsible, professional, committed and respected employees” (source: www.groupe-auchan.com). This mission is based on three fundamental values: trust, sharing and progress. Groupe Auchan builds on its employees’ capacity for business innovation by focusing on the sharing of power via the sharing of responsibility. This desire to encourage shop-floor initiative is reflected in the Group’s decentralized structure,

which gives significant autonomy to each subsidiary. In all of the businesses, independence, personal initiative, and involvement in the decision-making process are core concepts that the company instils in its employees throughout their careers. That accountability is central to professional development, and opens the doors of internal promotion to many employees (in the hypermarket branch, 32% of positions are filled through internal promotion).

In the retailing sector, very often Facebook pages/Groups are opened and managed by customers and, sometimes are held by their own employees, as in the case of the Auchan Italian employee page which makes fun of their customers². That social media CoP is the object of our research.

According to contributors, the vitality of a virtual CoP is a fundamental ingredient for making it successful and continuous over time. In order to assess the vitality of the analyzed CoP, we studied different engagement's metrics. These metrics revealed high members' participation frequency and spontaneity. During 6 weeks, there were 1,47 posts per day, and each post generated 19,7 likes as average.

We based our study on the content analysis of 62 statements released within a Social Media CoP hosted on Facebook and composed of 5.063 Italian employees of a retailer company, namely Auchan. Even if - according to its "formal domain" - this Community of Practice should "make fun of the Company's customers", we discovered that only 25,8% of contents are actually related to customers. Surprisingly, 27,4% of contents are focused on working conditions and conveys a negative opinion of members on this specific topic. The contents that are related to working conditions are the most engaging too. The most commented content is related to working conditions (44 comments), as the post that received the highest number of "likes" (134). Posts related to customers are not even in the top-five of the most liked contents.

Our content analysis seems to reveal a gap with the official mission declared by the company: "to improve the purchasing power and the quality of life of the greatest number of customers, with responsible, professional, committed and respected employees". According to thoughts shared inside the analyzed Social Media CoP, employees are not really satisfied with the working conditions and consider the management as not really interested in their needs.

By analysing the contents shared among the social media CoP of Auchan's Italian employees, we highlighted 7 main content categories (6 plus "others") that are shared more often. As with Grounded Theory (Glaser and Strauss 1967), data analysis has been continued as long as new insights on important topical areas are still being generated, and it has produced the data showed in TABLE 4.

TABLE 4: CONTENT ANALYSIS. WHAT MEMBERS ARE SHARING

<i>Category / Topic</i>	<i>Percentage</i>	<i>Sentiment</i>
Working conditions	27,4%	Positive: 5,9% Negative: 88,2% Fun/Ironic: 5,9% Neutral: /
Customers	25,8%	Positive: / Negative: 12,5% Fun/Ironic: 81,3% Neutral: 6,2%
Operations (assortment, promotion, ...)	12,9%	Positive: 37,5% Negative: 37,5% Fun/Ironic: 12,5% Neutral: 12,5%
Encouraging	9,7%	Positive: 83,3% Negative: / Fun/Ironic: / Neutral: 16,7%
Retail sector/actuality	8,1%	Positive: /

		Negative: 20,0% Fun/Ironic: 80,0% Neutral: /
Corporate (Auchan)	3,2%	Positive: 100,0% Negative: / Fun/Ironic: / Neutral: /
Others	12,9%	/

Data analysis highlights 7 different content topics, classified and categorized in:

1. Working conditions: posts discussing working conditions, such as working Sunday, contractual conditions, working hours organization, and so on.
2. Customers: posts describing customers' gaffe and oddity.
3. Operations: posts related with the everyday in-store life, with the sharing of merchandising photos, comments about promotions and in-store materials (Mondial's theme), assortment, uniforms.
4. Encouraging: common posts of incitement with the aim to say "come on!". The majority of them are shared links from other Facebook pages.
5. Retail sector/actuality: news and gossip from the retail sector (M&A, new opening and closure, ...).
6. Corporate (Auchan): information about the French management and the new local management.
7. Others: mainly off topic, or personal messages such as "missing dog".

While the majority of the post includes photos, a good variety characterizes the "sociality" of the posts, namely the number of shares and comments made on each content. TABLE 5 describes the most social post, in terms of numbers of Like and Comments.

TABLE 5: THE MOST RELEVANT AND "SOCIAL" POSTS

<i>Like ranking</i>		<i>Comments ranking</i>	
<i>(average n° Like/post: 19,7)</i>		<i>(average n° Comments/post: 4,9)</i>	
POST	TOPIC	POST	TOPIC
04/05 MRR, 134 Like	working conditions	30/04 FM, 44 Comments	working conditions
28/05 MB, 64 Like	operations	13/05 DM, 24 Comments	customers
25/05 LT, 59 Like	corporate (Auchan)	04/05 MRR, 23 Comments	working condition
03/06 LT, 54 Like	working conditions	29/05, CC, 20 Comments	operation
02/06 AA, 53 Like	other (<i>personal work anniversary</i>)	08/06 GCM, 20 Comments	off topic (<i>looking for a lost dog</i>)

Focusing in more detail on the results, the research shows that:

- Even if the group is named "Never say Auchan", customers' gaffes/mistakes are an excuse to meet people working in the same sector/company.
- The majority of the post concerning the customers has a positive ironic sentiment. On the other hand, the group permit to yell out about working conditions (especially about the working Sunday: a very hot topic).
- Colleagues are close each others, "The Company" is far from the store. The Group permits to discuss arguments that overcome the "single store dimension", reaching more wide topics and horizons: central management, competitors, and so on and so far. Very often the discussion through the comments highlights service level and retail practice with consistent differences across the Italian area.
- Most viral posts are the personal ones: the Group doesn't like general posts and off topics, but awards (with "Like" and comments) personal experience and stories, original photos. In the Group is possible to highlight some heavy

contributors.

- The lexicon used is very sectorial.

4. Concluding remarks

The main purpose of this paper has been to further our understanding of side effects of virtual CoP on corporate reputation. By integrating the marketing perspective with the organizational one, in order to propose an original research pattern, we gained both managerial and theoretical implications.

Unlike what happens in “traditional” (offline) CoP or in virtual CoP that are implemented on platforms with a restricted access, all the contents created by virtual CoP that are built within a Social Network website like Facebook (Social Media CoP) are potentially visible from anyone. In this case, the practice performed by the members of a community could potentially negative affect the whole corporate reputation, as predicted by the Fombrun’s model.

Given this premise, our case study shows the importance for management to constantly monitor the conversations that take place within a social media CoP. In this way, managers become more and more aware of the employees’ needs and expectations, drawing on information that otherwise would remain "hidden". Under this point of view, we have shown that social media CoP can provide valuable information to refine company’s HR policies.

Under a theoretical point of view, we firstly introduced the concept of “Social Media CoP”, intended as a virtual CoP that is hosted by a Social Network Website. Moreover, we see this case as a good opportunity to extend to Social Media CoP the well-known Fombrun’s model. In fact, through access to a CoP social, employees themselves can highlight any discrepancies between the current way of organizing a company and the official statements of the same. Just as explained in the Fombrun’s model, these factors can affect the image of the company that not only customers, but a wider range of stakeholders, including potential new employees, have.

This study constitutes a first step towards a deeper understanding of the relationship between the existence of a virtual community of practice created by the employees and the company's performance, through its impact on the corporate reputation - both at an external level (customers perspective) and at an internal one (employees perspective). This research has clear limitations. We considered a short time-span. We have analysed a single CoP, in a specific sector. We do not have reinforced content analysis with a specific analysis of the gap reputation. Despite these limitations, in our view the existence of a social CoP among employees from a company can be considered a two-sided phenomenon. Indeed, the case that we analysed highlights the risks of a negative impact on corporate reputation and the image perceived by both customers and potential employees. We see this as a side effect that is hard to predict and manage: for this reason we believe that this research field can be very promising and we therefore encourage contributors to perform similar studies on a different number of industries and to a larger number of Social Media CoP.

References

- [1] Amabile, T. M. (1997). Motivating Creativity in Organizations: On Doing What You Love and Loving What You Do. *California Management Review*, 40(1), 39–58.
- [2] Argyris, C., Putnam, R., & Smith, D. M. (1987). *Action Science*. San Francisco: Jossey-Bass.
- [3] Bender, T., & Kruger, S. M. (1982). *Community and Social Change in America*. Baltimore: Johns Hopkins University Press.
- [4] Brown, J. S., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization science*, 2(1), 40–57.
- [5] Chun, R. (2005). Corporate reputation: Meaning and measurement. *International Journal of Management Reviews*, 7(2), 91–109.
- [6] Csikszentmihalyi, M. (1997). *Creativity: Flow and the Psychology of Discovery and Invention*. New York: HarperCollins.
- [7] Davies, G., & Miles, L. (1998). Reputation management: theory versus practice. *Corporate Reputation Review*, 2(1), 16–27.
- [8] De Wever, B., Schellens, T., Valcke, M., & Van Keer, H. (2006). Content analysis schemes to analyze transcripts of online asynchronous discussion groups: A review. *Computers & Education*, 46(1), 6–28.
- [9] Dede, C. (1996). The evolution of distance education: Emerging technologies and distributed learning. *American Journal of Distance Education*, 10(2), 4–36.
- [10] Etzioni, A. (1995). The responsive community: a communitarian perspective. *Presidential Address, American Sociological Association*.
- [11] Figallo, C. (1998). *Hosting Web communities: Building relationships, increasing customer loyalty, and maintaining a competitive edge*. New York: John Wiley & Sons.
- [12] Fombrun, C. (1996). *Reputation*. Harvard Business School Press Boston.
- [13] Fombrun, C., & Riel, C. B. M. (1997). The reputational landscape. *Corporate reputation review*, 1–16.
- [14] Guest, G., Macqueen, K., & Namey, E. E. (2012). *Applied thematic analysis*. London: Sage.
- [15] Kim, T. Y., Oh, H., & Swaminathan, A. (2006). Framing interorganizational network change: A network inertia perspective. *Academy of Management Review*, 31(3), 704–720.
- [16] Lesser, E. L., & Storck, J. (2001). Communities of practice and organizational performance. *IBM systems journal*, 40(4), 831–841.
- [17] Lesser, E., & Prusak, L. (1999). Communities of practice, social capital and organizational knowledge. *Information Systems Review*, 1(1), 3–9.
- [18] Mayan, M. J. (2009). *Essentials of Qualitative Inquiry*. Left Coast Press, Incorporated.
- [19] Palloff, R. M., & Pratt, K. (1999). *Building learning communities in cyberspace* (Vol. 12). San Francisco: Jossey-Bass.
- [20] Pang, B., & Lee, L. (2005). Seeing stars: Exploiting class relationships for sentiment categorization with respect to rating scales. In *Proceedings of the 43rd Annual Meeting on Association for Computational Linguistics* (pp. 115–124).
- [21] Polanyi, M., & Sen, A. (2009). *The Tacit Dimension*. University of Chicago Press.
- [22] Preece, J. (2000). Online communities: Designing usability and supporting socialbility. John Wiley & Sons, Inc.
- [23] Schön, D. A. (1983). The reflective practitioner: How professionals think in action (Vol. 5126). Basic books.
- [24] Wenger, E. (2011). Communities of practice: A brief introduction.
- [25] Wenger, E. C., & Snyder, W. M. (2000). Communities of practice: The organizational frontier. *Harvard business review*, 78(1), 139–146.
- [26] Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Harvard Business Press.

<http://www.planetretail.net/>

<http://www.groupe-auchan.com>

End Notes

¹ This paper is the result of teamwork by the Authors. Nevertheless, Paragraph 1, 2 were written by F. Fraticelli, Paragraph 3 was written by F. Negri, Paragraph 4 was written by E. Cori. Corresponding author email: f.fraticelli@univpm.it.

² The group choose as title “Mai dire Auchan: tutte le papere dei nostri clienti” (tr: “Never say Auchan: all the gaffes of our customers”) and it’s available at <https://www.facebook.com/groups/52321660589>.

Impact of Mobbing on Health and Absenteeism among Nurses

Srećko Goić, Ph.D, goic@efst.hr

Matea Bobeta, MA

University of Split, Faculty of Economics, CROATIA

Impact of Mobbing on Health and Absenteeism among Nurses

Abstract

Mobbing is a specific form of behavior in the workplace, in which one person or a group of them systematically psychologically (mentally) abuses and humiliates another person during a longer period of time. Effects of mobbing on working behavior, individual and organizational performances are coming more and more in the focus of research interest of modern management and human resources management.

This paper is based on a research performed on a random sample of 287 nurses working in the hospital centre in Split (KBC Split). The research was anonymous, carried on in June and July 2013, using a specific questionnaire. The results show that the overall exposure to mobbing was 38.7% - i.e. 38.7% of respondents declared that at some point of their employment they have been exposed to some cases of mobbing. The largest proportion of respondents who considered themselves as victims of mobbing has been found in the age group of 25-34 years old. Gender and level of education did not show any specific difference because the proportion of male respondents was very small compared to female (8,4% : 91.6%), and the level of education was quite uniform. Most commonly, mobbers were colleagues hierarchically at the same level as victims. Statistically significant indications were found that exposure to mobbing affects considerably both the health and the increased absenteeism among this occupational group.

Key words: mobbing, mobbers, organizational behavior, health, absenteeism

1. Introduction

To ensure to employees the best working conditions is not only a humanistic aspiration, but even a request and principle of the modern human resources management. Modern managers should pay attention not only to physical conditions of work of their employees, but to interpersonal and organizational relationships that will create a positive and motivating climate for employees. Such larger notion of (good, stimulating) working conditions is seen today as the key factor of individual, group and organizational performances (Bahtijarević-Šiber 1999). Or, in the other sense, bad, demotivating working conditions can significantly compromise work results at all levels.

Mobbing is today among the most frequent, but also most serious phenomena that is threatening positive and healthy working conditions in virtually all organizations, no matter of their size, industry, and work force composition. Mobbing is a complex phenomenon that begins with maltreatment and psychological abuse on working place, and finishes with very serious consequences that can endanger health of the (mobbed) individual, his/her social status and badly affect their social environment. The history of human communities is full of examples of humiliation, maltreatment, and abuse, but mobbing is specific because it is exclusively connected with work and working environment. Mobbing is a kind of disturbance in interpersonal relations at work that can be defined as psychological terror in work environment with hostile and unethical communication, systematic maltreatment from one or more persons directed towards one person that is put in helpless position, unable to defend him/herself. To be qualified as mobbing, the maltreatment has to be frequent (at least once a week) and performed over a longer period (at least six months). The mobber has a conscious intention (rarely unconscious) to harm the mobbed and/or to force her/him to leave the organization (Borić R, Šinko M, Prlenda S, 2009).

Mobbing is more and more present in organizations, which has been confirmed by numerous researches. Explanations from the increase of mobbing incidence vary from competition, globalization, organizational changes (privatization, mergers, restructuring), informatization, economic crisis, "new economy", insecurity of working places, 'flexible employment practices', ... - all leading to an ever increasing pressure on organization and employees.

The scope of mobbing problem in enterprises can be illustrated by the results of several researches:

- a) for those entering labor market, the risk to become victims of mobbing over next 30 years is 25% (Leymann, 1996.);
- b) according to one other Leymann's research (Koić, Filaković, Mužinić, Matek, Vondraček, 2003.), 20% Swedish employees (every fifth) had been exposed to mobbing, while 3,5% had experienced severe mobbing that lasted on average 6-15 months;

- c) the research of the Northwestern National Life Insurance Company 1993 (Namie and Namie 1999, in Kostelić-Martić, 2005, p. 25) has found that one of four workers in the USA was mobbed;
- d) the research of the Institute of Personal Development in Great Britain showed that one in eight workers was mobbed over last five years;
- e) Einarsen, Hoel, Zapf, and Cooper (2003), after the analysis of numerous researches from Europe concluded that: 1-4% employees had had serious difficulties with mobbing, 8-10% had experienced occasional mobbing, and 10-20% had been faced with negative social behavior at work;
- f) in Italy, over 1 million workers has been suffering consequences from mobbing (Ege, 2000);
- g) two large researches were carried on in Europe by the European Foundation for the Improvement of Living and Work Conditions. First research, from 2000 (Third European Survey on Working Conditions, Dublin, Ireland, 2000, according to Kostelić-Martić, 2005, pp. 25-26) that involved 21.500 employees from states members of EU showed that 2% of employees were exposed to physical violence from their coworkers. 4% were exposed to physical violence on their working place from persons outside organization. 2% of employees were exposed to sexual harassment, and 9% were exposed to mobbing. Results of this research showed big differences in mobbing incidence across countries: the highest incidence was found in Finland (15%), followed by Great Britain and the Netherlands (14%). The lowest incidence of mobbing was found in Italy and Portugal (4%). The same research found significant differences in different areas of work: the highest incidence of mobbing was recorded in state administration and defense (14%), followed by education and health (12%), while the lowest incidence of mobbing was found in electricity distribution, water supply, agriculture and fishing (3%);
- h) Second research of European Foundation for Improvement of Living and Working Conditions (www.eurofound.eu.int) was carried out in 2001, and its results were published in 2003. That research included 12 new member states of the EU, surveying 11.000 workers. It found an average rate of mobbing exposure of 6,9%. This percentage was something lower than in older EU states (EU 15), which was explained with cultural differences and lack of information (Kostelić-Martić, 2005, p. 28). The highest incidence of mobbing was found in Lithuania (10,5%) followed by Czech Republic and Slovakia (9,5%), while the lowest incidence of mobbing was found in Hungary (3,0% and Cyprus (3,5%);
- i) Namie (2000, in Rijavec, 2005), found that in the USA 16,8 % workers were victims of mobbing, while Paoli and Merllie (2001, in Rijavec, 2005) found that incidence in Europe to be 11 %;
- j) according to a research in Croatia (Koić, Filaković, Mužinić, Matek, and Vondraček, 2003) between 15,4% and 53,4% respondents (in different organizations) experienced some forms of mobbing. In that same research, 37,7-54,8% of respondents declared they experienced psychological problems connected with the situation at work.

Mobbing is basically a real aggression to an individual at work, planned and carried on by a group of co-workers. Every such group of mobbers has a 'ringleader' who is coercing and manipulating group members into mobbing the selected 'target'. A division can be made on 'horizontal' mobbing (when the mobbers are the co-workers from the same level as the 'target') and 'vertical' (when at least a part of mobbers – usually 'ringleader' – are from higher hierarchical level than the 'target'). Although it was believed that mobbing is dominantly present in the industries that are dominantly masculine (like army and police), it is more and more present (or discovered) in areas that are dominantly feminine.

Harassment on the workplace (including mobbing) was for a long time the problem that was not discussed, neglected and almost concealed. Authors of the book "The Bully at Work", Gary and Ruth Namie, named it a „silent epidemic“ (Namie and Namie, 2000). Because of accumulation of negative emotions, mobbing is causing different psychological and psychosomatic disorders to its victims (Leymann, 1990).

Health problems and symptoms at the mobbing victims are found on three levels (Borić, Šinko, Prlenda, 2009):

1. Problems at the socio-emotional level, which includes changes in mood – like depression, anxiety, obsessive ideacy (continuous thinking about the problem), feeling of depersonalization, panic attacks, social insulation, lack of interest for others, emotional dumbness ...
2. Changes (problems) at psychosomatic level: headache, sleep disorders, feeling of loosing balance with vertigo, digestion disorders, feeling of pressure on the chest, breathing difficulties, hearth problems, changes on the skin ...

3. Behavior changes (disorders), which are usually combined with or derived from problems at the socio-emotional and psychosomatic level – like irritation, aggression (hetero- or auto aggression), passivity (often with excessive need for sleep) or agitation and insomnia, eating disorders, excessive use and abuse of alcohol, cigarettes, or drugs, sexual disorders, and even passive or active suicidal tendencies.

How serious can be problems provoked by mobbing, show the researches that found that between 10% and 20 % of suicides in Sweden had had direct or indirect cause in problems at work (Leymann, 1996). In Italy that incidence has been estimated at 13% (Ege, 1998). The researches at the Clinic for Work in Milan (Italy) have found that 8,7% victims of mobbing developed the posttraumatic stress disorder (PTSD).

Besides problems, harms and cost that bear victims of mobbing, costs (damages) for the organization of work are also evident. Those damages for the organization can be located in three areas:

1. Cost because of the absence of the mobbing victim: mobbed employees have more frequent and longer periods of absence,
2. Costs of the lower productivity of the mobbing victim, and
3. Indirect costs because of lower motivation and productivity of other employees involved in or witnessing the mobbing.

A research (Bieneck, 2006) estimated that large German enterprises had had the absenteeism costs caused by mobbing around 100€ per employee. Direct costs of mobbing in the US have been estimated to US\$ 4 billion (Chapell and DiMartino, 1999).

Mobbing and all its problematic consequences can be found in all areas of human work. Still, work in service areas is probably exposed to specific conditions and risks that can increase the possibilities and incidence of mobbing. Contact with clients and need for more intensive internal communication to satisfy clients demands are much demanding than in 'classical' manufacturing. That brings more exposure to (possible) harassments from clients, higher responsibility on behavioral level, and stronger emotional involvement of employees.

Nurses and their work definitely belong to the category of jobs with specific and additional risk of mobbing. Besides general characteristics of service work, nurses' work is connected with specific working conditions (working in shifts, night work, work on weekends and holidays, higher health risks), higher pressure from all directions: from above (doctors, managers), same level (other nurses as the competition), and from below (lower staff, patients). All these characteristics not only increase probability of mobbing, but also can boost sensitivity of nurses to the mobbing. For that reason, this research has been directed to the incidence and consequences of mobbing among nurses in a large hospital in Croatia.

2. Incidence of mobbing and its influence on health and absenteeism on nurses in the KBC Split

2.1. KBC Split

Clinical Hospital Split (KBC Split) is the central hospital in Southern Croatia, located in the city of Split, but serving around 1.000.000 Croatian citizens from Southern Croatia (Dalmatia), around 500.000 citizens of southwestern parts of neighboring Bosnia and Herzegovina, and more than 500.000 tourists that visit those parts (mainly during summer season). The KBC Split is a complete and complex hospital with 13 clinics and all necessary supporting services, having 1.854 beds and employing around 3.200 employees. Those employees can be divided in several groups:

- ✓ Specialists physicians – 12% of total staff
- ✓ General physicians, interns, and volunteering physicians – 7% of total staff
- ✓ Nurses – 41% of total staff, or more than 1.300
- ✓ Other medical staff (physiotherapists, pharmacists, laboratory technicians ...) – 10% of total staff
- ✓ Nonmedical staff – 30% of total staff

Nurses are, obviously, the most numerous group of employees in the KBC Split (like in any other hospital). They are mostly female (94%, against 6% males in this category). Most of them have a high school education (79%), while 21% has a college (2 years) or university level of education.

2.2. Sample and research method

The research of mobbing among nurses in the KBC Split was conducted during June and July 2013 on a random sample of 350 nurses. Out of 350 approached nurses, 301 (86%) returned the questionnaire, but 14 (4,7%) of them were incompletely or incorrectly responded. So finally, 287 questionnaires represented the sample for this research, representing 21,9% of the total number of nurses in the KBC Split. The structure of the sample is presented in the Table 1.

As it can be seen from the Table 1, 263 out of 287 (91,6%) were female, against 24 (8,4%) males. Majority of respondents belonged to the age groups between 25 and 44 years (64,8%). Almost 70% of respondents had the high school education (69,3, while remaining 30,7% had college or university level of education. All these characteristic of the sample made it fairly large and representative. Following that, the results of the research can also be considered representative and relevant for this group and organization.

TABLE 1. SAMPLE STRUCTURE

		number	%
Gender	Male	24	8,4
	Female	263	91,6
Age	< 25	25	8,7
	25 – 34	109	38,0
	35 – 44	77	26,8
	45 – 54	54	18,8
	55 – 65	22	7,7
Education level	high school	199	69,3
	college and university	88	30,7

The instrument for this research was an anonymous questionnaire, constructed by authors, consisting of several groups of questions:

- demographic characteristics of respondents (gender, age, and educational level);
- questions about relationships with co-workers and superiors, and exposure to inappropriate conduct (answered on a 5-grade scale);
- questions about exposure to mobbing (previous and/or current);
- questions about the type of mobbing and mobber;
- questions about impact of mobbing to absenteeism;
- questions about consequences of mobbing to the health of mobbed person (where 5 possible types of effects were offered: nervousness, chronic tiredness, reactive depressive state, reactive psychotic state of paranoid type, and posttraumatic stress disorder that can lead to suicide).

Participants were given short instructions about the research and the questionnaire, and then left to fill the printed questionnaire freely and anonymously.

2.3. Incidence and type of mobbing

Table 2. summarizes the basic results on incidence of mobbing among nurses in the KBC Split – total and across the age groups.

TABLE 2. MOBBING INCIDENCE THROUGH AGE GROUPS

Have you ever been exposed or do you still consider yourself a victim of mobbing?				Total
No		Yes		
number	%	number	%	

Age	<25	17	68,00	8	32,00	25
	25-34	68	62,39	41	37,61	109
	35-44	46	59,74	31	40,26	77
	45-54	36	66,67	18	33,33	54
	55-65	9	40,91	13	59,09	22
	Total	176	61,32	111	38,68	287

Asked whether they have ever been exposed or do they still consider themselves a victim of mobbing, 111 out of 287 nurses that responded (38,7 %) answered with „Yes“. Comparing with the researches mentioned in the section 1, this makes a very high incidence of mobbing and suggests (confirms?) that nurses are the category especially susceptible to mobbing.

Although the lowest (in the relative sense) incidence of mobbing was recorded among the youngest, and the highest incidence was recorded among the oldest respondents, the trend was not uniformly increasing. As the question was asking for cumulative exposure to mobbing over the whole working life, growth of incidence with the age could have been expected, but statistically significant difference among the groups was not confirmed (Pearson Chi-Square was 5,119; $\alpha^* = 0,275$ which is $>5\%$).

Table 3. presents the mobbing incidence across the educational levels. Although some previous researches suggested that employees with lower status (in formal and educational sense) are more frequently and stronger exposed to mobbing (Mustajbegović, Russo, 2012), this research did not find significant differences between nurses with higher school and those with tertiary education.

TABLE 3. MOBBING INCIDENCE BY EDUCATIONAL LEVELS

		Have you ever been exposed or do you still consider yourself a victim of mobbing?				Total	
		No		Yes			
Education level	high school	121	68,8%	78	70,3%	199	69,3%
	college and university	55	31,3%	33	29,7%	88	30,7%
Total		176		111		287	

Table 4 is giving the incidence of mobbing directions: even 51 respondents consider themselves victims of both horizontal and vertical mobbing (46% of all those considering themselves to be exposed to mobbing). That could suggest that victims of mobbing are often mobbed from both directions – coworkers and superiors. Slightly higher incidence of horizontal mobbing is not statistically significant to allow the claim that horizontal mobbing is more present among the nurses in the KBC Split.

TABLE 4. MOBBING INCIDENCE BY THE POSITION OF THE MOBBER

	Have you been or are you still a victim of the horizontal mobbing	Total

		No	Yes	
Have you been or are you still a victim of the vertical mobbing	No	176	32	208
	Yes	28	51	79
Total		204	83	287

It should be mentioned that, because of very small share of males in the sample (and in total number of nurses in the KBC Split), analysis of differences among genders was ineffectual.

2.4. Connection between mobbing and absenteeism

Since the absenteeism is the most common and most visible indicator of problems and dissatisfaction with the situation at work, this research tried to establish existence (or non-existence) of correlation between the mobbing and absenteeism. First respondents were asked to evaluate directly connection between mobbing and absenteeism in their case (Table 5). While the case of 2 respondents that did not declare to be mobbed, but still responded that the mobbing led to higher absenteeism in their case can be considered insignificant (marginal) error, it is definitely significant that 35% of those that were mobbed responded that the mobbing led to higher absenteeism in their case.

TABLE 5. CONNECTION OF MOBBING WITH ABSENTEEISM

		Has the mobbing led to higher absenteeism in your case?		Total
		No	Yes	
Have you ever been exposed or do you still consider yourself a victim of mobbing?	No	174	2	176
	Yes	72	39	111
Total		246	41	287

The sick leave is dominant and virtually only significant type of absenteeism among the nurses in the KBC Split. Therefore, to research the influence of mobbing to absenteeism, they were asked about how often they went to sick leave (Table 6) and how many working days they lost because of that (Table 8).

Just the mere look at the Table 6 suggests the difference between those who were not exposed to mobbing and those who felt to be victims of mobbing. Although the number of those who declared themselves to have being victims of mobbing was in total much lower that the number of those who did not, the first were obviously more represented in the groups of those who were going more frequently on sick leave. Pearson Chi-Square was 64.285, while empirical significance was $\alpha^* = ,000$ ($\alpha^* < 0,01$).

TABLE 6. RELATIONSHIP BETWEEN MOBBING AND FREQUENCY OF SICK LEAVE

		How often do you go on sick leave?					Total
		Never	1 per year	2-3 times per year	4-5 times per year	More than 5 times per year	
Have you ever been exposed or do you still consider yourself a victim of mobbing?	No	82	76	16	1	1	176
	Yes	34	37	31	8	1	111
Total		116	113	47	9	2	287

Checking for statistical significance of this difference (Table 7), it showed an indisputable significant difference, with Pearson Chi-Square being 30,392, and empirical significance of $\alpha^* = ,000$ ($\alpha^* < 0,05$).

TABLE 7. CORRELATION BETWEEN MOBBING FREQUENCY OF SICK LEAVE

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30,392 ^a	4	,000
Likelihood Ratio	30,433	4	,000
N of Valid Cases	287		

a. 3 cells (30,0%) have expected count less than 5. The minimum expected count is ,77.

Analyzing answers to the question ‘*How many days have you been annually (on average) on the sick leave during last 3 years?*’ (Table 8), it is again easily visible that those who declared themselves to have being victims of mobbing were more represented in the groups of those who spent longer periods on the sick leave (more than 20 days in a year). That difference was found to be statistically significant, with the Pearson Chi-Square of 61,511, and empirical significance $\alpha^* = ,000$ ($\alpha^* < 0,01$).

TABLE 8. RELATIONSHIP BETWEEN MOBBING AND DURATION OF SICK LEAVE

		How many days have you been annually (on average) on the sick leave during last 3 years?					Total
		Less than 10 days	10-20 days	20-50 days	50-100 days	More than 100 days	
Have you ever been exposed or do you still consider yourself a victim of mobbing?	No	106	57	10	3	0	176
	Yes	41	34	29	6	1	111
Total		147	91	39	9	1	287

Obviously all the respondents that (felt that) were victims of mobbing went more frequently on sick leave and were absent from work for much longer periods because of that. Such situation is not only the indicator that nurses exposed to mobbing suffer from significant (psychological and/or psycho-physiological) problems, but also lose significant part of their working time, which causes noticeable damages to their employer (KBC Split).

2.5. Connection between mobbing and health problems

Every maltreatment on the working place, and especially systematic and prolonged like mobbing, can cause health problems to the maltreated person. In this research, respondent have been asked about the kind of health problems that mobbing is causing to them. Although this way was not entirely objective (because respondents gave their own,

subjective diagnosis), it should be also noted that the respondents were nurses, knowledgeable and experienced enough to understand and recognize characteristics of health problems.

Table 9 presents distribution of responses about health problems that mobbing was causing to respondents (nurses at the KBC Split). Taking into account that the question was formulated as "*What kind of health problems is mobbing causing to you?*", it should not be surprising that respondents that did not declare themselves as the victims of mobbing, responded negatively to this question. On the other side, all the responded that they were exposed to mobbing, perceived some health problems connected with mobbing.

TABLE 9. RELATIONSHIP BETWEEN MOBBING, HEALTH PROBLEMS, AND AGE

	What kind of health problems is mobbing causing to you?						Total
	<i>Nothing</i>	Nervous-ness	Chronic tiredness	Reactive depressive state	Reactive psychotic state of paranoid type	PTSD that can lead to suicide	
<25	17	5	2	1	0	0	25
25-34	68	8	19	4	6	4	109
35-44	46	3	11	13	2	2	77
45-54	36	0	1	13	4	0	54
55-65	9	0	0	5	7	1	22
Total	176	16	33	36	19	7	287

Only 16 out of 111 respondents that were exposed to mobbing answered they felt (only) some nervousness as the consequence of mobbing. All other victims of mobbing experienced some more serious health problems. Most represented has been the reactive depressive state – 36 (32,6%) of respondents developed such problems. Even more worrying are the results that 17,1% nurses that were victims of mobbing developed reactive psychotic state of paranoid type, and 6,3% developed (by their own opinion) PTSD that can lead to suicide. The gravity of health problems experienced by particular age groups is obviously growing with the age. That relationship was found to be statistically significant, with the Pearson Chi-Square of 72,470, and empirical significance $\alpha^* = ,000$ ($\alpha^* < 0,01$). It could be obviously concluded that negative health consequences of mobbing show a cumulative effect and grow bigger with prolonged exposure to mobbing over the working life.

3. Conclusions

Mobbing can happen and is happening in virtually every organization and every kind of work. Hospitals are certainly not exemption, nor is the nurses' work. On the contrary, the result of this research showed that the incidence of mobbing among nurses is higher than it was found in most of previous researches. More than one third of surveyed nurses in a large Croatian hospital were exposed to mobbing at least once in their working life.

Most plausible explanation for that can be the nature of nurses' work, with a lot of pressure, tensions and grave working conditions, as well as the position of nurses between doctors and patients. Such a 'crucified' position of nurses does not change with the change (raise) of education level – the nurse is always the nurse, no matter how educated she is. Nurses are exposed equally to vertical and horizontal mobbing. The pressure from above comes from doctors and management, but nurses also fight each other very often and fiercely. The organization that was the object of this research has many characteristics that foster incidence and intensity of mobbing: competitive working environment, strict hierarchical structure, difficult working conditions, excessive working load, hostile organizational culture ... all that contributes to high incidence and severe consequences of mobbing in the KBC Split.

This research has confirmed that mobbing directly contributes to higher incidence and longer duration of absenteeism – completely in accordance with other similar researches carried out in Croatia (Beganlić et al. 2009). Clear and strong statistical correlation between mobbing and absenteeism has been confirmed, which means that for

victims of mobbing missing from work is not only necessity when they are physically incapable to work, but also a psychological escape when the pressure from mobbers is too strong. In any case, several nurses from this research reported that, due to mobbing, they were on sick leave between 50 and 100 days per year. Such long absences not only show the intensity of mobbing cases, but indicate very high losses (costs) for the employer.

Negative health consequences of mobbing have also been clearly confirmed in this research. Besides the professional risk of diseases transferred from patients, mobbing seems to be one other very strong medical risk inherent for the profession of nurses. Very serious health problems are developed by the victims of mobbing, adding to previously mentioned losses through absenteeism, but also meaning significant personal problems and losses for individuals. Cumulative character of such phenomena that has been confirmed in this research could be considered almost inherent professional risk for nurses.

All these conclusions could be used in several ways: to develop tools and practices to curb mobbing among nurses (and in hospitals in general), to improve individual resistance against the mobbing and negative effects of mobbing, to develop and introduce changes in organizational structures and processes, and finally to systematically work on development and promotion of the organizational culture that will reduce incidence and consequences of mobbing.

References

- [1] Bahtijarević-Šiber, F. (1999): Management ljudskih potencijala, Golden marketing, Zagreb
- [2] Beganlić, A. et al. (2009): Učinci mobinga na privremenu spriječenost za rad u medicinskih sestara – tehničara, Sigurnost, Zavod za istraživanje i razvoj sigurnosti d.d., 51 (1), pp. 1-9 .
- [3] Bieneck, H. J. (ed.), (2006), *The Economic Efficiency of Health and Safety at Work*, Federal, Dortmund: Institute for Occupational Safety and Health.
- [4] Borić, R., Šinko, M., Prlenda, S. (2009): Ostvarivanje politike jednakih mogućnosti za tekstilne radnice/ke, Centar za ženske studije, Zagreb
- [5] Chappell D., Di Martino, V. (1999), Violence at Work, *Asian-Pacific Newsletter on Occupational Health and Safety*, 6 (1).
- [6] Ege, H. (1998) : II Mobbing, Pitagora , Bologna
- [7] Ege, H. (2000) *Mobbing: Just what is psychological terror in the workplace.* www.cesil.com/0300/mobbing03.htm (23.6. 2008.)
- [8] Einarsen, S., Hoel, H., Zapf, D., Cooper, C. L. (2003), *Bullying and Emotional Abuse in the Workplace: International Perspectives in Research and Practice.* London and New York: Taylor & Francis.
- [9] Koić, E., Filaković, P., Mužinić, L., Matek, M., Vondraček, S. (2003) : Mobbing, Rad i sigurnost, 7 (1), pp. 1-19
- [10] Kostelić-Martić, A. (2005) : Mobbing: psihičko maltretiranje na radnome mjestu (kako prepoznati mobbing, kako se obraniti i kako ga spriječiti), Školska knjiga, Zagreb
- [11] Leymann, H. (1996), The Content and Development of Mobbing at Work. *The European Journal of Work and Organizational Psychology*, 5 (2): pp. 165-184.
- [12] Leymann, H. Mobbing encyclopaedia. URL://<http://www.leymann.se>. (03.03.2013.)
- [13] Namie, G, Namie, R. (2000): The Bully at Work, Sourcebooks, Naperville
- [14] Rijavec, M. (2005), Načini rukovođenja koji pogoduju mobbingu, Prvi hrvatski interdisciplinarni simpozij “Mobbing”, Opatija, plenarno predavanje.

Note: Contact author for the full list of references.

Intangibles and creation of value in an integrated formal and informal eLearning environment

*Sabrina Leone, s.leone@univpm.it
Dipartimento di Ingegneria dell'Informazione
Università Politecnica delle Marche*

Intangibles and creation of value in an integrated formal and informal eLearning environment

Abstract

In the knowledge society intangibles are valuable for corporate competitiveness. Indeed, lifelong and ubiquitous learning, social semantic computing technologies, and open learning resources are urging organisations to meet their employees' learning needs more effectively. Stereotyped training does not guarantee efficacy; it has to be personalised and supported by informal learning communities to facilitate the flow tacit-explicit knowledge and subsequently to create value for the organization as a whole.

The shifting role of establishments in networked learning organizations is a decisive change that an integrated formal and informal eLearning environment, enhanced by an adaptive mechanism and web 2.0 and Social Semantic Web tools, can facilitate.

Starting from the results of *SSW4LL – Social Semantic Web for Lifelong Learners*, this paper investigates the impact of this integrated formal and informal eLearning environment on human and organisational capital, and how this environment contributes to the creation of value for a business organisation.

Introduction

In the knowledge society intellectual capital, also referred to as intangibles or knowledge-based resources, is a key asset for corporate competitiveness. Intangibles constitute the amount by which the market value of a firm exceeds its tangible (physical and financial) assets less liabilities (Magrassi, 2002), and encompass the capability of talented employees in modern innovative enterprises and the intellectual property they produce. Nowadays, intellectual capital contributes more to global economy than financial capital does, but its influence is not well grasped, nor quantified. Valuing and exploiting intangibles properly generates the income, and thus creates the value, that businesses need to function, be competitive and grow (Wiederhold, 2014).

Human, structural and relational capitals compose intellectual capital.

Human capital, the value that corporate staff develop through the application of skills, know-how and expertise, also covers how effectively an organisation uses its human resources in terms of creativity and innovation.

Structural capital, which includes organisational, process and innovation capitals, consists of the organisation's supportive non-physical infrastructure, processes and databases that enable human capital to function. Specifically, organisational capital includes corporate philosophy and systems for leveraging the organization's capability (Orlandi, 2012). Innovation is the shift of an idea into a new product or process thanks to the use of structured technical knowledge and skills. Innovation allows a business to differentiate itself from its competitors and to become more competitive on the market. Since innovation comes from creative ideas, it depends on the quality of the intangibles, particularly on the human capital, an organisation owns (Håkansson and Waluszewski, 2014).

Relational capital comprises customer relationships, supplier relationships, trademarks and trade names licences, and franchises (Orlandi, 2012).

On these premises, in the context of the knowledge society, the concepts of human capital and lifelong learning are very close each other. On the one hand, lifelong learning contributes to promote the development of social and human capital by continuous learning opportunities (Earp, Ott, Popescu, Romero and Usart, 2014), "throughout life, with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment-related perspective" (European Commission, 2002). On the other hand, companies' effective performance is strongly related to their talent-driven approach. In this regard, the growing adoption of a lifelong learning vision, the affordances of ubiquitous learning and social semantic computing technologies, and the large amount of open learning resources available are posing to organisations the challenge of meeting their employees' learning needs and aims more effectively. Formal, non-formal and informal learning have become key words of this age; in particular, there is an increasing understanding that learning occurs for the most part outside the traditional formal situations (Leone, 2013). Formal

learning consists in the hierarchically structured, chronologically graded educational system running from primary through to tertiary institutions; non-formal learning takes place through education organised for specific learners with specific learning objectives, outside the formal established system; informal learning allows persons to acquire attitudes, values, skills and knowledge from daily experience, within the individual's environment (such as family, friends, peer groups, the media and other influences) (UNESCO, 1999). Formal and informal learning are more and more intersected; in fact, a growing use of informal networks is taking place in professional environments to acquire knowledge and competences. Stereotyped teacher-centred training does not guarantee efficacy (Leone, Guazzaroni, Carletti and Leo, 2010); it has to be personalised and supported by informal learning communities to facilitate the flow of tacit knowledge into explicit knowledge (Nonaka and Takeuchi, 1995) and subsequently to create value for the organisation as a whole. As a matter of fact, the "double link" described by Wenger, McDermott and Snyder (2002) is crucial for the survival and the development of both, community of practice (CoP) and formal organization: the first conducts the improvement of its members' expertise through informal interaction and learning; the second relies on experts grown in the CoP to identify and implement company strategies, to focus on objectives and outcomes of its working units, thus on performance and clients. As an evidence, the synergy between a CoP and the organization as a whole activates the cycle plan-do-study-act (Deming, 1993) in all the business processes and naturally leads to continuous improvement policy, that closes the circle on human resources as fulcrum and added value of the organization.

This evolution requires organizations to commit to and support an ongoing culture of learning across their community, a culture that recognizes and embraces a more holistic, dynamic and flexible approach.

The shifting role of establishments in networked learning organizations (Senge, 1990) is a decisive change that an integrated formal and informal eLearning environment, enhanced by an adaptive mechanism and web 2.0 and Social Semantic Web tools, can facilitate.

Starting from the results of the recent research experiences which the author has conducted with *SSW4LL – Social Semantic Web for Lifelong Learners*, this paper aims to investigate the impact of this integrated formal and informal eLearning environment on human and organisational capital as elements of intangibles, and how this environment contributes to the creation of value for a business organization.

Theoretical background

Changiness, adult lifelong learners and learning organizations: a learning theory

In a lifelong learning perspective, the combination of pervading technological development and the focus on the individual human resource's potential needs to be harmonized and exploited, in order to expand knowledge exchange, open to changiness (Rogers, 1961) and foster the shift of organisations into learning organisations. Changiness is a reliance on process rather than upon static knowledge, and change as a vision should be a constant in the workplace. Learning organizations embrace change and persistently create reference points to speed up an ever-evolving structure. Continuous improvement requires a commitment to learning, and learning organizations challenge all employees to tap into their inner resources and potential, and favour the development of their own community based on principles of liberty, humanity, and a collective will to learn (Senge, 1990).

Community and network are two facets of social structures in which learning occurs. The community relates to the construction of a shared identity around a topic or set of challenges. It expresses a collective, tacit and distributed intention to attend to a domain of knowledge and to support learning about it. The network consists in a set of interactions among participants who have personal reasons to connect. It provides a series of nodes and links that offer continuous occasions for learning (e.g., information flows, helpful linkages, joint problem solving, and knowledge creation).

Community and network often develop together. Social learning is enhanced by a dynamic interaction of both community and network processes. Such interplay combines focus and fluidity as it interlaces individual and collective learning. The work of nurturing learning needs to take advantage of this complementarity (Wenger, Trayner and De Laat, 2011).

To date, most of the actions of corporate training have been stereotyped and characterized by the inability to capture the skills developed during informal learning activities, the difficulty of reusing the knowledge that emerged

during individual and collaborative work, and resistance to exploit effectively and efficiently the existing skills (Mangione, Orciuoli and Salerno, 2012).

Consequently, workplace learning necessities to be enriched with technology-enhanced solutions suitable to meet simultaneously the personnel's needs and learning styles and the organization's requirements, in order to maximise its ability to learn, innovate and evolve (Argyris and Schön, 1996), and thus to value human and organisational capital.

Workplace learning is adult learning, organizational learning and knowledge management (Wang, Ran, Liao and Yang, 2010). The theories related to adult learning emphasize personal reflection, problem orientation and knowledge construction by means of social processes (Granito, Mangione, Miranda, Orciuoli and Ritrovato, 2014). Organizational learning refers to the models representing how organizations learn (Argyris and Schön, 1996). Lastly, knowledge management focuses on approaches and practices exploited in order to identify, create, represent and distribute knowledge for reuse, awareness and learning (Nonaka and Takeuchi, 1995).

Today designing online adult education means being able to build courses which favour generative learning, by shifting from a teacher-centred approach to a learner-centred one, from a linear learning system to a networked one, from an individual vision to a cooperative one, from a fixed programme to a project to be organized (Leone, 2013). Networked learning, variously underpinned by constructivism (Jonassen and Land, 2000), socio-constructivism (Brown, Collins and Duguid, 1989) or connectivism (Siemens, 2004), is manifested in Personal Learning Environments (PLEs) (Leone, 2013) and exploits information and communication technology (ICT) to facilitate connections: between learners, learners and tutors, a learning community and its learning resources. It is the fusion of these connections that provides the most powerful learning potential.

The learning that is made possible by social software tools is active, process-based, experiential (Kolb, 1984), anchored in and driven by learners' interests, and therefore has the potential to cultivate self-regulated, independent learning. Definitely, lifelong learners are self-regulated learners, that is they are able to recognize their need for further learning, and are proactive in gaining access to and accomplishing learning (Leone, 2010). Lifelong learners execute learning activities that lead to knowledge creation, comprehension and higher order learning by using processes such as monitoring, reflection, testing, questioning and self-evaluation. In addition, self-regulation works best when learners are provided with continuing feedback concerning the effectiveness of their learning approach (Zimmerman, 1990).

Indeed, a know-how (Engeström, 1990) is the result of full participation, on the one hand, and of freedom of action, on the other, which should inspire a competence-driven training approach. All this means thinking to complex learning activities, as complex is the competence for the multiplicity of its dimensions (Leone, Guazzaroni, Carletti and Leo, 2010).

Lifelong learners need personalized, participatory and social learning environments, and user-controlled professional growth. Recent research experiences have shown that an integrated formal and informal eLearning environment can facilitate this (Leone, 2013; 2014a; 2014b).

The role of intangibles in organisations: creation of value, measurement and evaluation

Typically, companies use their resources to produce goods and services to be exchanged on the market and achieve a positive return. In this process of creating value, both tangible and intangible resources are used, differently combined according to the organisation's intellectual capital. Thus, intangibles make the difference between production processes doomed to failure and competitive processes.

A company's innovative capability does not just depend on individuals' knowledge and potential, but specifically on their interdisciplinary and interactive thinking and action. The prerequisite for emerging innovation is embedded in social structures, as the synergy in the relationship of separate individuals (Bischoff, Vladova and Jeschke, 2013). More in detail, the learning value of a community derives from the ability to develop a collective intention to advance learning in a domain. The learning value of a network derives from access to a rich web of information sources offering multiple perspectives and dialogues, responses to queries, and help from others. This potential for spontaneous connections and serendipity is a key aspect of the value of networks for learning (Wenger, Trayner and De Laat, 2011).

Hence, appropriate measurement and evaluation procedures need to be developed for intangibles. Existing procedures for including important intangible results, such as the *Balanced Scorecard* (Kaplan and Norton, 1996), are not specific enough to serve as an adequately funded model. There are many other approaches and methods, however, for evaluating working knowledge (Sveiby, 2001).

The best known method is the *Skandia Navigator* (Edvinsson and Malone, 1997). The output of this method is the *Intellectual Capital Report*, that covers operational intellectual capital in addition to the annual report. The value of intellectual capital is determined by the *Skandia Market Value Scheme*, which places the market value within a hierarchical structure.

Another method is the *Intangible Asset Monitor* (Speckbacher and Halatek-Zbierchoswi, 2002), that is a system based on the knowledge organization for measuring the intangible asset. As a non-financial scorecard system, this method should be considered as an additional evidence of a company's financial success and its shareholder value.

As a whole, a correct approach should consist in identifying the relevant intangible resources, mapping the actions carried out by the management for their development, and analyzing their effectiveness and efficiency by measuring the impact on resulting business performance and enterprise value. This implies that the measurement of a company's intellectual capital requires the analysis of its strategy, organization and business model adopted, beyond the study of operating results or financial performance.

The following step should consist in the design of the indicators of their qualitative and quantitative level and of the management policies aimed at creating and developing the same assets. In particular, the value of human capital depends on the level and quality of skills, the organisation's ability to hold it and the business climate that encourages both the dissemination of knowledge in the company and contributes to employee loyalty to the company. Hence, in order to monitor these aspects of human capital *ad hoc* indicators should be used for the level of the skills monitored, of the staff's ability to achieve objectives, of the business turnover, of the various dimensions of the business climate. In addition, it is important to monitor the activities of creation and development of human capital by related indicators, such as training activities, coaching, team building initiatives.

The last step to take is to identify the links between intellectual capital and overall performance that can highlight how an effective management of intangibles contributes to an organisation's ability to generate wealth and maintain a competitive position. This phase is a prerequisite to the identification of potential financial and income flows attributable to the possession of a certain intellectual capital and therefore to the evaluation of such hidden value. As a matter of fact, in order to generate benefits, the indicators and the value of intangibles must be included in the company's reporting system. Among the benefits resulting from this measurement and evaluation process, there are: 1) it becomes possible to manage intellectual capital according to a strategic-financial approach to maximize the contribution of intangibles in the process of value creation (Deming, 1993); 2) the system allows to understand if, for example, an investment in training results in an increase in the economic value. Moreover, taking advantage of the significant opportunities offered by international accounting standards and, to a lesser extent, by national ones, the company can increase its capital base by giving visibility in the financial statements of its most valuable assets and therefore be able to attract more funding. Also from a financial standpoint, the company by communicating their intangible assets, may be able to improve its credit ratings under Basel 2 and therefore benefit from a lower cost of money (Giuliani, 2012).

An integrated formal and informal eLearning environment for learning organisations: the SSW4LL format

SSW4LL (*Social Semantic Web for Lifelong Learners*) is an adaptive, modular, flexible and integrated learning format which has been conceived to support the characterisation of adult lifelong learners' PLEs by implicit and explicit tools of personalisation, in a learner-centred framework (Leone, 2013; 2014b). The *SSW4LL* system, the technological architecture, is presented as a whole made up of components of formal and informal learning environments: Moodle 2.0 integrated with an adaptive mechanism (conditional activities) and some tools of Social Semantic Web (Semantic MediaWiki, Diigo and Google+), respectively. The *SSW4LL* format was successfully validated during the course *SSW4LL 2011* (Leone, 2013). Further experiences are in progress.

The *SSW4LL* format is devised for adult lifelong learners in general, rather than for one specific cluster within, and for the expansion of all knowledge domains. Besides, the *SSW4LL* format supports mobile learning, but ubiquitous learning features could be implemented as well, as an extension.

The synergy of formal and informal learning arises from the smooth integration of the different technological components, the light e-moderation of the learning environment by a facilitator, the support of a technical e-tutor and the

continuous enrichment of the initial learning resources (formal environment) by social software and Social Semantic Web tools (informal environment).

Use case scenario

Mark is a junior manager of Modern Art Museum in Amsterdam. He is a strongly motivated self-directed learner, as well.

Anyhow, work overload does not leave him much time to update his PLE as he would like to. Time constraints and information overload are difficult issues for Mark.

Since he has thought of dedicating some time to deepen his knowledge in Arts and Culture for a bit, he decides to enroll in a refresher course on this topic, the “Arts and Culture Online Course”, by the Rotterdam University, entirely online, in a learner-centred approach, over 3 weeks.

He is not new to technology-enhanced learning, but this is the first time he uses some of the tools provided within the course. For this reason, as soon as he receives his access to Moodle and Semantic MediaWiki, and the invitation to join in the Diigo course group and Google+ from the teacher-facilitator, he creates his accounts in these two.

He is familiar with social bookmarking and has already used Diigo search before, but he is not an enthusiastic user of social networks. He knows that he is not going to use Google+ so much during the course. However, he decides to log in Moodle to have a look at the video tutorials that the e-tutor has suggested for these first two warm-up days of technological familiarization; he is also curious to meet the other participants and happy to introduce himself in the participants’ forum.

When he logs in Moodle, he finds a welcoming post by his e-tutor and his reminder to complete the entry survey to express expectations and personal background. Having done this, Mark carries out the survey and immediately he visualises a video presentation of the course and a list of tutorials, user’s manuals and sandboxes.

Mark spends some time in Semantic MediaWiki sandbox; semantic annotation appears decisively useful to his goals in terms of knowledge construction and management, but he needs more time to practice.

At the end of the first two days, Mark has met 15 course peers in the forum (introductions), in Diigo and in Google+. He has used Diigo tools highlighter, sticky notes and tags, and he has shared a couple of resources, he has created the course circle in his Google+ account and has joined in the Google+ course community that had been created by his e-tutor.

He pleasantly realizes that, through his contacts in these social tools, he is already able to easily get to new resources and users related to the “Arts and Culture Online Course”.

During the third day, the e-tutor arranges a hangout for the following day by a Google+ Event tool. During this, he invites all participants to find out more in Moodle: learning modules are ready to be accessed. What is new to Mark is that learning is personalised: Mark logs in Moodle and can visualise the quiz *How do you prefer to learn?*; he completes it, he obtains a feedback about his learning style, he confirms it in a “choice” tool for the corresponding most suitable learning sequence and the system starts his sequence of learning objects (LOs). Mark is able to visualise the various LOs as he proceeds, and at the end he can move among them as he prefers. This allows Mark to both take advantage of a personalised scaffolded learning path and to decide autonomously what to do and how much time and effort to spend. He is also aware of his prior knowledge on the topic because he has answered a true/false quiz. He is free to spend as much time as he needs on each learning resource, and he can self-check his knowledge and skills as many times as he feels like through the self-assessment test.

Besides, he comments in the forum, he shares several considerations in Semantic MediaWiki and he links these in his Google+ Profile. Then he follows what is going on in the Diigo course group by the Diigo widgets in Moodle.

At the end of the first week Mark realises he has learnt more about Arts and Culture, but, above all, he has had the chance to learn to use new tools that can support him in managing his PLE. So, he is happy to transfer his new knowledge and know-how to his team at work.

Discussion

Online learning offers a wide range of information easily available and enhanced by multimedia and hypertext. The *SSW4LL* environment enables integration and coordination of theoretical and practical material, as well as encouraging the development of skills in logical reasoning, critical thinking, communication and self-directed learning.

This online environment has been designed for maximum flexibility. It allows participants from a variety of backgrounds to construct a study plan according to their learning goals, expertise and availability. In other words, flexible delivery includes learner control over content, time, place and method of learning.

SSW4LL gives lifelong learners equality of access and tailored learning. It helps to orientate the participant to independence and self-responsibility in learning, a basis for fostering lifelong learning habits (Leone, 2013).

The effectiveness of the training course *SSW4LL 2011* in terms of added value to human and organizational capitals was assessed by Kirkpatrick's (1994) four-level model:

- level 1 – reaction, a measure of participants' initial reactions to the course, assessed through an entry survey;
- level 2 – learning, a measure of the amount of information that participants learned, assessed by self-assessment tests at different steps;
- level 3 – transfer, a measure of the amount of material learned that participants actually use in everyday work, assessed by interviews;
- level 4 – value to the organisation, a measure of the financial impact of the training course on the bottom line of the organisation, assessed by interviews.

The use case scenario of the *SSW4LL* format and the results of the preceding research experiences of its implementation show that

this integrated formal and informal eLearning environment provides a collaborative context meant to make tacit knowledge emerge through action and applied learning (Nonaka and Takeuchi, 1995). The participants (lifelong learners) improve their competences in their domain by learning, solving, mentoring, and collaborating, producing tacit learning. The community and the network (Wenger, Trayner and De Laat, 2011) that arise create knowledge by combining prior knowledge in new ways and on the basis of a cyclical process characterized by four stages: 1. socialization (individuals exchange tacit knowledge); 2. externalization (individuals link tacit knowledge to explicit knowledge); 3. combination (individuals unite explicit ideas to create knowledge); 4. internalization (individuals extract knowledge from newly created organizational tacit and explicit knowledge through learning by doing) (Nonaka and Takeuchi, 1995). This model sustains that tacit knowledge is shared by the reiteration of the four-step process and it results in the shape of a "learning spiral".

The participants to *SSW4LL 2011*, through frequent and repeated interactions, generated an informal learning system to self-train and to validate its members' knowledge and competences, but much of their efforts and expertise are not fully recognized.

In this process an increasing flow of knowledge and skills empowers individuals (human capital), feeds innovation (within structural capital) and enriches the organization with self-confidence, trust and vision for change (organizational capital).

Conclusion and future directions

In the knowledge society intellectual capital is a key asset for corporate competitiveness. Nowadays, intellectual capital contributes more to global economy than financial capital does, but its influence is not well grasped, nor quantified. Few and general methods of measurement and evaluation are mentioned in research literature.

The concepts of human capital and lifelong learning are very close each other. Formal and informal learning are more and more intersected; in fact, a growing use of informal networks is taking place in professional environments to acquire knowledge and competences. Stereotyped teacher-centred training does not guarantee efficacy; it has to be personalised and supported by informal learning communities to facilitate the flow of tacit knowledge into explicit knowledge and subsequently to create value for the organisation as a whole. The *SSW4LL* format is a validated example of integrated formal and informal eLearning environment that could enhance intangibles.

As a whole, in a lifelong learning perspective, the combination of pervading technological development and the focus on the individual human resource's potential needs to be harmonized and exploited, in order to expand

knowledge exchange, open to changingness and foster the shift of organisations into learning organisations, rather into smart networked learning organisations in the near future. As a matter of fact, the widespread availability of broadband will allow smart working, that is the range of changes enabled by greater flexibility combined with greater use of ICT, thus more flexible working patterns, opening up new employment opportunities, and enhancing the productivity and the continuous professional and personal development of staff.

References

- [1] Argyris, C., & Schön, D. A. (1996). *Organizational Learning II: Theory, Method, and Practice*. Reading, MA: Addison-Wesley.
- [2] Bischoff, S., Vladova, G., & Jeschke, S. (2013). Measuring Intellectual Capital. In Jeschke, S., Isenhardt, I., Hees, F., & Henning, K. (Eds.) (2013), *Automation, Communication and Cybernetics in Science and Engineering 2011/2012*. Berlin Heidelberg: Springer-Verlag.
- [3] Brown, J., Collins, A. & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18 (1), pp. 32-42.
- [4] Deming, W.E. (1993). *The New Economics*. Cambridge, MA: MIT Press.
- [5] Earp, J., Ott, M., Popescu, M., Romero, M., & Usart, M. (2014). Supporting Human Capital development with Serious Games: An analysis of three experiences. *Computers in Human Behavior*, 30, 715-720.
- [6] Edvinsson, L., & Malone, S. (1997). *Intellectual Capital – Realizing your company’s true value by finding its hidden Brainpower*. New York: HarperBusiness.
- [7] European Commission (2002). *European Report on Quality Indicators of Lifelong Learning*. Brussels: European Commission.
- [8] Giuliani, M. (2012). Il capitale intellettuale: making invisible visible. LIVE. Retrieved May 20, 2014 from <http://www.liveintangibles.it/2012/10/11/il-capitale-intellettuale-making-invisibile-visibile/#more-603>
- [9] Granito, A., Mangione, G.R., Miranda, S., Orciuoli, F. & Ritrovato, P. (2014). Adaptive Feedback Improving Learningful Conversations at Workplace. *Journal of e-Learning and Knowledge Society*, v.10, n.1, 63-83.
- [10] Jonassen, D.H., & Land, S.M. (2000). *Theoretical Foundations of Learning Environment*. New Jersey: Lawrence Erlbaum Associates.
- [11] Kaplan, R. S., & Norton, D. P. (1996). *The Balanced Scorecard. Translating strategy into action*. Boston: Harvard Business Press.
- [12] Kirkpatrick, D. L. (1994). *Evaluating Training Programs: The four levels*. San Francisco: Berrett-Koehler.
- [13] Kolb, D.A. (1984). *Experiential Learning: experience as the source of learning and development*. New Jersey: Prentice-Hall. Håkansson, H., & Waluszewski, A. (Eds.). (2014). *Knowledge and innovation in business and industry: The importance of using others*. Routledge.
- [14] Leone, S. (2010). F2F learning vs eLearning: the lifelong learner's point of view. *Proceedings of INTED 2010*, Valencia (Spain), 8th - 10th March 2010.
- [15] Leone, S. (2013). *Characterisation of a Personal Learning Environment as a lifelong learning tool*. SpringerBriefs in Education. New York: Springer Science & Business Media.
- [16] Leone, S. (ed.) (2014a). *Synergic Integration of Formal and Informal E-Learning Environments for Adult Lifelong Learners*. Hershey, PA: IGI Global.

Please contact the author for the full list of references

Executive Compensation in Intangible Intensive Industries

*Richard A. Lord, lordr@mail.montclair.edu
Montclair State University (USA)*

Executive Compensation in Intangible Intensive Industries

Abstract

This is a study of the effects of intangible and tangible expenditures on CEO compensation packages and on the price-performance-sensitivity of their shareholdings. The level of expenditures on intangible advertising and R&D activities has a significant impact on the annual CEO compensation contracts. Executive option grants are positively related to these expenses, and salary, bonuses and restricted stock grants are negatively correlated. These results correspond to earlier findings of a positive relationship between R&D spending and equity-based compensation. There is less evidence of relationships of CEO compensation with tangible depreciation expenditures. Without controls for industry, there appears to be a negative relationship between bonus compensation and depreciation. But, this association vanishes after controlling for industry effects. There is also evidence of a negative relationship of the levels of intangible and tangible expenses with the price-performance-sensitivity of CEO equity portfolios. But, this also disappears after controlling for industry.

Introduction and Review of the Literature

This is a study of the effects of the levels of intangible and tangible expenses on the design of CEO compensation packages and on the price-performance-sensitivity of CEO equity portfolio. Discussions of these relationships have a long history. Early studies by Smith and Watts (1992) and Gaver and Gaver (1995) suggest that firms with plentiful growth opportunities rely heavily on market-based compensation.

Accounting data is distorted in enterprises with high levels of research and development (R&D) expenses. Therefore, Chan, Lakonishok and Sougiannis (2001) argue that these firms should make heavy use of market-based compensation, because security prices quickly incorporate the benefit of these expenditures. Kole (1997) finds that R&D intensive firms make greater use of market-based compensation. In a slightly more refined analysis, Ryan and Wiggins (2002) find the R&D expenses are positively correlated with option-based compensation, but they are negatively correlated with restricted stock compensation. On the other hand, Aboody and Lev (2000) note that markets are also poor at determining the value of intangible opportunities. Therefore, Banker, Byzalov and Xian (2013) suggest that R&D intensive firms should make greater use of long-term incentive plans.

Several studies have concentrated on relatively narrow classes of firms that make heavy usage of intangibles. Anderson, Banker and Ravindran (2000) study the compensation of executives in the information technology industry. Bell, Landsman, Miller and Yeh (2002) examine employee stock option compensation for computer software firms. Ittner, Lambert and Larcker (2003), Murphy (2003) and Bebchuk and Grinstein (2005) have written on executive pay in new economy firms.

I take a different approach. Rather than concentrating on a narrow sector, I estimate two proxies for the use of intangible and tangible assets and study their relationship with the design of CEO compensation packages for a broad pooled cross-section of firms. The first proxy is the portion of total expenditures on advertising and R&D, and the second is the portion spent on depreciation on the other,

I use the ratios of the four major components of managerial compensation, salary, bonuses, option grants and restricted stock grants, to the total value of compensation as the dependent variables. Using the proportional measures capture the interactions among the elements. A change in the relative use of any one of the components affects the portions used of the other three. This approach actually embodies the character of the trade-offs involved in the design of CEO compensation packages. Previous empirical studies by Lewellen, Loderer and Martin (1987), Holthausen, Larcker and Sloan (1995), Ryan and Wiggins (2001 and 2002), Ittner, Lambert and Larcker (2003) and Lord and Saito (2012) have used proportional measures of some of the components of compensation.

In addition to the effect of tangible and intangible expenditures on annual executive compensation, I also study their relationship with the price-performance-sensitivity of CEO equity portfolios. Murphy (1985), Hall and Liebman (1998), Hall and Murphy (2002) and Core, Guay and Larcker (2003) all argue convincingly that managerial equity portfolios probably create much more powerful incentives to encourage wealth maximizing behavior than annual compensation. Jensen and Murphy (1990) find that in the preceding decades, managerial equity holdings did not seem sufficiently sensitive to changes in share price to properly align the incentives of executives with those of outside

shareholders. One reason often advanced for the phenomenal growth in stock-based compensation in the ensuing period is that these grants would increase the sensitivity of CEO equity holdings.

To test for the relationship between the levels of advertising, R&D and depreciation expenses I estimate a set of Tobit models employing the portions of the four major forms of annual executive compensation as the dependent variables. In the models of the price-performance-sensitivity of CEO equity portfolios I employ OLS regression. All of the models include a set of control variables commonly-used in studies of executive compensation. I then include the portions of advertising and R&D expenses to total firm expenses, and of depreciation expenses to total outlays. I estimate these models using one set of specifications where I do not control for industry fixed-effects, and a second set where I do.

I concentrate on the four-year period from 2002 to 2005. This is a relatively stable recent time-frame between the two serious market contractions in the 21st century.

For the relationship of the intangible advertising and R&D expenditures with the portions of the common forms of executive compensation there are clear results that shine-through regardless of the specification. These costs are positively correlated with CEO option grants, and negatively correlated with the portions of salary, bonus and restricted stock grant compensation. This corresponds with the earlier findings of Kole (1997), Chan, Lakonishok and Sougiannis (2001) and Ryan and Wiggins (2002).

Before controlling for industry fixed-effects there is evidence of a negative relationship between the portion of bonus compensation and tangible depreciation expenses. But, the significance of this association vanishes after including the industry dummy variables.

Similarly, there is significant evidence of a negative relationship of the price-performance-sensitivity of executive option portfolios with both the intangible advertising and R&D expenditures, and the tangible depreciation costs. But, these are also overwhelmed once the industry control effects are included in the specifications.

The remainder of the paper is organized as follows. In the next section I describe the econometric methodology to test for relationships of advertising, R&D and depreciation expenses with the forms of executive compensation and with the price-performance-sensitivity of CEO equity portfolios. Then I describe the data sources and characteristics. The empirical results are described in the fourth section. In the final section of the paper I summarize the results and draw conclusions.

Econometric Methodology

To assess the effects of the extent of intangible activities on CEO compensation and the price-performance sensitivity of the executives' equity portfolio, I estimate five models that take the general form:

$$\text{SALPC} = \alpha + \beta_1\text{LASS} + \beta_2\text{TEN} + \beta_3\text{LEV} + \beta_4\text{D-DIV} + \beta_5\text{D-FIN} + \beta_6\text{ROE} + \beta_7\text{RET} + \beta_8\text{SDS} + \lambda_1\text{ADR} + \lambda_2\text{DEP} + e. \quad (1)$$

In these models the dependent variables are the managerial compensation measures. This version is shown with SALPC, the portion of salary to total CEO compensation, as the dependent variable. The other three forms of annual CEO compensation are: BONPC, bonuses and long-term incentive payments as a portion of total CEO compensation; OPTPC, the portion of CEO compensation given as option grants; and RSPC, restricted stock grants as a portion of total CEO compensation. The fifth dependent variable is PPS, the price-performance-sensitivity of CEO equity portfolios. The independent variables are all drawn from the same fiscal year as the dependent variable.

I include eight widely-used control variables in the model. LASS is a proxy for firm size, the logarithm of total assets. TEN is the tenure of the CEO. LEV is a proxy for financial leverage, the debt-to-asset ratio. D-DIV is a dummy variable set to one if the firm pays a dividend and is set to zero otherwise. D-FIN is a dummy variable set to one if the firm operates in the financial sector and is set to zero if not. ROE is a measure of accounting profitability, the return on equity. RET is the firm's annual stock return for the fiscal year, and SDS is the annualized standard deviation of these daily stock returns for the year.

A widely used measure of intangibility is advertising and R&D expenses. The variable ADRD is the ratio of the sum of these two expense items to total corporate expenditures for the year. Because many firms fail to report these two expense items, I set missing observations to a value of zero. The level of depreciation expenses is a suitable proxy for the level of tangible expenses. So, I also include DEP, the portion of depreciation expenses to total expenses in the model.

While ADRD is intended to capture the use of intangibles, and DEP the use of more tangible assets, it is important to remember that firms with high levels of one measure will not necessarily have low levels of the other. For instance, firms in the pharmaceutical sector have high levels of both advertising and R&D expenses and depreciation. In fact, ADRD and DEP are mildly positively correlated. The Pearson correlation coefficient is about 5.65%, and the Spearman rank-order correlation coefficient is slightly over 14%. Both are statistically significant. I estimate the model with the price-performance-sensitivity of CEO equity portfolios as the dependent variable using an ordinary least squares (OLS) specification. But, the measures of the four forms of managerial compensation are all proportions with values between zero and one, and are continuous in that range. Wooldridge (2002, pp. 518-520) describes such a distribution as a “corner solution outcome.” He argues that the proper approach for such data is a standard censored Tobit model. Also, a large portion of the executives in the sample receive 0% of their compensation as bonuses, options or restricted stock grants (what are traditionally called left-censored values). Greene (2012, pp. 852–857) notes that a Tobit model is especially well-suited for a sample with a large cluster of observations at or near zero. Several earlier studies of executive compensation by Yermack (1995), Bryan, Hwang and Lilien (2000), Ryan and Wiggins (2001) and Lord and Saito (2012) that use proportional measures as the dependent variable employ Tobit models. All of these precedents suggest that Tobit specifications are the best approach to analyze the portions of the four components of annual CEO compensation.

The use of tangible and intangible assets probably varies strongly by industry. Murphy (1985), Himmelberg, Hubbard and Palia (1999), Palia (2001) and Lord and Saito (2010 and 2012) also show that there are important industry effects in CEO compensation. Therefore, I specify a second version of the models where I include dummy variables for the industry segments. I use the fifty Fama-French industry groups. The coefficient estimates could be significantly different after controlling for industry. Because this specification includes dummy variables for the financial services industries, D-FIN, the dummy variable for firms in these industries must be omitted from this specification.

Data and Sample Characteristics

I assess the relationship between intangible and tangible expenditures and executive compensation during the four-year period from 2002 to 2005. This timeframe is chosen because it is a relatively quiet period between the two severe financial crises of the 21st century. Therefore, the data are a pooled cross-section.

Most of the data for this study is culled from COMPUSTAT, EXECUCOMP and CRSP. The firms in the sample correspond roughly to the S&P 1,500, because the dataset is constrained by the information available on EXECUCOMP. I eliminate all firms missing any of the required variables.

The computation of most of the variables is reasonably straight-forward. As mentioned above, the numerator in BONPC is bonuses and payouts under long-term investment plans. The numerator for the debt-to-asset ratio is the sum of notes and long-term debt. The annual stock return (RET) and the annualized standard deviation of daily stock returns for the year (SDS) are estimated using the CRSP data for the fiscal year. Any firm missing ten daily observations or more for a year is eliminated.

The price-performance-sensitivity of the CEO's equity portfolio is probably least familiar to most readers. This variable shows the change in the CEO's wealth for a \$1 change in shareholder value. The denominator for this ratio is the total number of firm shares outstanding. The numerator is the sum of shares and restricted shares held by the CEO, plus the number of options the manager holds multiplied by an estimate of delta for this option portfolio.

I employ a widely used adaptation of the Black-Scholes-Merton model by Core and Guay (2002) to estimate the implied delta of each CEO's option portfolio. This calculation requires estimates of six parameters: share price, the strike price of the options, the time-to-maturity of the contracts, the volatility of the underlying shares, the risk-free rate, and the firm's dividend-payout-ratio. I use the end-of-fiscal-year share price as the market value. The strike price

is estimated as the difference between the end-of-fiscal-year share price and the ratio of the EXECUCOMP estimate of the intrinsic value of in-the-money options with the number of options held by the CEO. Following Core and Guay, I assume that all unexercisable options have a time-to-exercise of nine-years, and exercisable options have a time-horizon of six-years. I use daily stock returns from CRSP to compute the annualized standard deviations of daily stock returns for the fiscal year as the measure of volatility. I use the yield on seven-year Treasury Bonds in the month of the fiscal-year end as the risk-free rate. The dividend-payout-ratio is estimated using data from COMPUSTAT. The aggregate sample for the four-year period from 2002 through 2005 contains 5,233 firm-year observations. Summary statistics for this data are shown in Table 1.

Table 1						
Summary Statistics						
SALPC – Salary as a portion of total CEO compensation, BONPC – Bonuses and Long-Term Incentive Payments as a portion of total CEO compensation, OPTPC – Option Grants as a portion of total CEO compensation, RSPC – Restricted Stock Grants as a portion of total CEO compensation, PPS – Price-Performance-Sensitivity of CEO equity portfolios, LASS – Logarithm of Total Assets, TEN – CEO Tenure, LEV – Debt-to-Asset Ratio, D-DIV Dummy variable for dividend paying firms, D-FIN – Dummy variable for Financial Firms, ROE – Return on Equity, RET – Annual stock return, SDS – Standard Deviation of Stock Return, ADRD – Advertising and R&D expenses as a portion of total expenses, DEP – Depreciation expenses as a portion of total expenses						
Variable	Obs	Median	Mean	Std Dev	Min	Max
SALPC	5,233	0.2280	0.2926	0.2306	0.0000	1.0000
BONPC	5,233	0.2063	0.2419	0.2046	0.0000	1.0000
OPTPC	5,233	0.3105	0.3315	0.2843	0.0000	1.0000
RSPC	5,233	0.0000	0.0971	0.1741	0.0000	1.0000
PPS	5,089	0.0155	0.0332	0.0589	0.0000	0.9740
LASS	5,233	7.5052	7.6796	1.7581	1.6192	14.2170
TEN	5,233	5.0444	7.4562	7.2247	0.0000	54.7500
LEV	5,233	0.2216	0.2597	0.2583	0.0000	3.3874
D-DIV	5,233	1.0000	0.5393	0.4985	0.0000	1.0000
D-FIN	5,233	0.0000	0.1156	0.3198	0.0000	1.0000
ROE	5,233	0.1114	0.1050	1.6050	-31.7550	61.2290
RET	5,233	0.1247	0.1133	0.3706	-0.9928	2.3232
SDS	5,233	0.3446	0.3840	0.1814	0.0811	1.4982
ADRD	5,233	0.0178	0.0634	0.1087	0.0000	0.9717
DEP	5,233	0.0492	0.0759	0.0989	0.0000	0.9978

The portions of the forms of executive compensation measures and similar to those presented by Lord and Saito (2010). Option grants are the greatest portion of CEO pay; over 30%. But, in the 21st century, restricted stock grants have grown rapidly in importance, in this period they represent almost 10% of executive pay on average. The price-performance-sensitivity of the CEO equity portfolios indicate that the typical executive gains or losses between 1.50¢ and 3.50¢ for a \$1 change in shareholder wealth. This is in-line with the findings of Jensen and Murphy (1990) and Lord and Saito (2010). About 54% of the firms in the sample pay dividends, and about 12% are in the financial services industries. The median and mean of the ratio of advertising and R&D expenses to total corporate expenditures are 1.78% and 6.34% respectively, and for the ratio of depreciation to total expenses they are 4.92% and 7.59% respectively.

Empirical Results

The results for the four Tobit model specifications without industry control variables are shown in Table 2.

Table 2				
Tobit Models Results				
Annual CEO Compensation Variables				
No Industry Control Dummy Variables				
SALPC – Salary as a portion of total CEO compensation, BONPC – Bonuses and Long-Term Incentive Payments as a portion of total CEO compensation, OPTPC – Option Grants as a portion of total CEO compensation, RSPC – Restricted Stock Grants as a portion of total CEO compensation, LASS – Logarithm of Total Assets, TEN – CEO Tenure, LEV – Debt-to-Asset Ratio, D-DIV Dummy variable for dividend paying firms, D-FIN – Dummy variable for Financial Firms, ROE – Return on Equity, RET – Annual stock return, SDS – Standard Deviation of Stock Return, ADRD – Advertising and R&D expenses as a portion of total expenses, DEP – Depreciation expenses as a portion of total expenses				
Chi-Square Probabilities shown below coefficient estimates in parentheses				
Variable	SALPC	BONPC	OPTPC	RSPC
Intercept	0.6184 (<i><.0001***</i>)	0.1682 (<i><.0001***</i>)	0.0952 (<i>0.0060***</i>)	-0.2737 (<i><.0001***</i>)
LASS	-0.0498 (<i><.0001***</i>)	0.0070 (<i>0.0006***</i>)	0.0271 (<i><.0001***</i>)	0.0354 (<i><.0001***</i>)
TEN	0.0025 (<i><.0001***</i>)	0.0013 (<i>0.0012***</i>)	-0.0036 (<i><.0001***</i>)	-0.0077 (<i><.0001***</i>)
LEV	0.0158 (<i>0.1988</i>)	0.0107 (<i>0.3599</i>)	-0.0818 (<i><.0001***</i>)	0.0679 (<i>0.0111***</i>)
D-DIV	0.0340 (<i><.0001***</i>)	0.0077 (<i>0.2559</i>)	-0.0857 (<i><.0001***</i>)	0.0292 (<i>0.0615*</i>)
D-FIN	0.0197 (<i>0.0590*</i>)	0.0383 (<i><.0001***</i>)	-0.0247 (<i>0.1553</i>)	-0.0429 (<i>0.0492**</i>)
ROE	-0.0028 (<i>0.1287</i>)	0.0039 (<i>0.0302**</i>)	0.0021 (<i>0.4906</i>)	-0.0011 (<i>0.7896</i>)
RET	-0.0579 (<i><.0001***</i>)	0.1047 (<i><.0001***</i>)	-0.0453 (<i>0.0008***</i>)	0.0459 (<i>0.0137**</i>)
SDS	0.1031 (<i><.0001***</i>)	-0.1308 (<i><.0001***</i>)	0.0630 (<i>0.0668*</i>)	-0.2975 (<i><.0001***</i>)
ADRD	-0.2906 (<i><.0001***</i>)	-0.1522 (<i><.0001***</i>)	0.7510 (<i><.0001***</i>)	-0.4152 (<i><.0001***</i>)
DEP	-0.0103 (<i>0.7369</i>)	-0.0815 (<i>0.0045***</i>)	0.0632 (<i>0.2182</i>)	0.1001 (<i>0.1109</i>)
Observations	5,233	5,233	5,233	5,233
Right Censor; 100%	65	0	8	0
Left Censor; 0%	31	855	1,388	3,445
Log Likelihood	-917.359***	-52.276***	5,515.330***	5,067.170***
*- significant at 90% level, ** - significant at 95% level, *** - significant at 99% level				

The log-likelihood ratios suggest that all of the models have significant explanatory power. As suggested earlier many of the observations for bonuses, option grants and restricted stock grants are clustered at 0%, making the use of the Tobit model particularly appropriate.

First, consider the coefficient estimates for the eight control variables. Managers in large firms are paid lower salaries and higher portions of bonuses and option and restricted stock grants. Longer tenured executives are paid higher portions of salary and bonuses, and fewer equity grants. Managers at firms with higher financial leverage are given fewer option grants and more restricted stock grants. Firms that pay dividends provide higher salaries and fewer option grants. Managers of financial firms tend to receive greater bonuses and less restricted stock grants than executives in other industries. As expected, return-on-equity is positively related to bonus compensation. But, it is not correlated with the other three forms of compensation. Firms that have higher stock returns give their managers less salary and option grants, and higher bonuses and restricted stock grants. When stock prices are volatile, managers receive greater salary compensation and less bonuses and restricted stock grants. The results for the relationships of stock return and volatility with the four components of executive compensation are similar to those from Lord and Saito (2012).

The portion of expenditures on advertising and R&D is the proxy for the firm level of intangible usage, and is thus the primary variable of interest. This variable is significantly related to all four of the forms of annual CEO compensation. It is positively related with the portion of option grants, and negatively with the three other forms of compensation. This is consistent with earlier findings by Kole (1997) and, Chan, Lakonishok and Sougiannis (2001). Ryan and Wiggins (2002) and Lord and Saito (2012) find evidence that the reasons for granting restricted stock grants often differ from those for option grants. These results show that these relationships have persisted into the 21st century. The findings are also somewhat contrary to the assumptions of Aboody and Lev (2000) and Banker, Byzalov and Xian (2013).

I also include the portion of depreciation to total expenditures as a proxy for the use of more tangible expenses. In these specifications there is only evidence of a significant negative relationship between bonuses and depreciation.

The results for the model specifications for the four forms of CEO compensation that include dummy variables for the Fama-French industries are shown in Table 3.

Table 3
Tobit Models Results
Annual CEO Compensation Variables
With Industry Control Dummy Variables

SALPC – Salary as a portion of total CEO compensation, BONPC – Bonuses and Long-Term Incentive Payments as a portion of total CEO compensation, OPTPC – Option Grants as a portion of total CEO compensation, RSPC – Restricted Stock Grants as a portion of total CEO compensation, LASS – Logarithm of Total Assets, TEN – CEO Tenure, LEV – Debt-to-Asset Ratio, D-DIV Dummy variable for dividend paying firms, ROE – Return on Equity, RET – Annual stock return, SDS – Standard Deviation of Stock Return, ADRD – Advertising and R&D expenses as a portion of total expenses, DEP – Depreciation expenses as a portion of total expenses

Chi-Square Probabilities shown below coefficient estimates in parentheses

Variable	SALPC	BONPC	OPTPC	RSPC
LASS	-0.0222 (<i><.0001***</i>)	0.0160 (<i><.0001***</i>)	0.0296 (<i><.0001***</i>)	0.0223 (<i><.0001***</i>)
TEN	0.0019 (<i><.0001***</i>)	0.0010 (<i>0.00225**</i>)	0.0014 (<i>0.0606*</i>)	-0.0071 (<i><.0001***</i>)
LEV	0.0217 (<i>0.1111</i>)	-0.0068 (<i>0.5968</i>)	-0.0507 (<i>0.0205**</i>)	0.0548 (<i>0.0642*</i>)

D-DIV	0.0476 (<i><.0001***</i>)	0.0139 (0.0488**)	-0.0677 (<i><.0001***</i>)	0.0223 (0.1682)
ROE	-0.0018 (0.3225)	0.0035 (0.0460**)	0.0035 (0.2193)	-0.0030 (0.4599)
RET	-0.0333 (<i><.0001***</i>)	0.1009 (<i><.0001***</i>)	-0.0309 (0.0198**)	0.0230 (0.2251)
SDS	1.8532 (<i><.0001***</i>)	0.2404 (0.0657*)	-3.3293 (<i><.0001***</i>)	-0.4153 (0.1888)
ADRD	-0.2424 (<i><.0001***</i>)	-0.1435 (<i><.0001***</i>)	0.5682 (<i><.0001***</i>)	-0.2147 (0.0243**)
DEP	0.0186 (0.6240)	-0.0344 (0.3285)	0.1018 (0.0944*)	0.0189 (0.8129)
Observations	4,902	4,902	4,902	4,902
Right Censor; 100%	41	0	6	0
Left Censor; 0%	28	754	1,162	3,198
Log Likelihood	-1,317.130***	-564.430***	4,387.592***	4,637.882***
*- significant at 90% level, ** - significant at 95% level, *** - significant at 99% level				

In the presentation of the results an intercept is not included, and I do not show the estimates for the fifty industry-specific dummy variables. Also, because of the inclusion of the industry-level controls, the dummy variable for the financial services industry must be omitted. Again, the log-likelihood ratios suggest that the models have significant explanatory power.

In these specifications, most of the signs and statistical significance of the coefficients on the control variables are similar to that for the models without the industry dummies. There are eight exceptions. In Table 2 the relationship between CEO tenure and option grants is negative. In Table 3 it is positive, and would even pass a significance test at the 90% level. The positive significance on the association between the debt-to-asset ratio and restricted grants has shrunk to the 90% confidence level. After controlling for industry, there is now statistical evidence that firms paying dividends provide higher bonuses. In the specifications including industry controls the significance of the relationships of restricted stock grants with stock return and the annualized standard deviation of daily stock returns have disappeared. Also, the significant negative relationship of the equity risk proxy with the portions of bonus compensation has shifted, and in Table 3 there is evidence at the 90% confidence level that the association is positive. Finally, there is now evidence of a significant negative relationship between option grants and the annualized standard deviation of daily stock returns.

The same correlations of the portion of advertising and R&D expenses and the four measures of annual CEO compensation seen in Table 2 still hold in Table 3. So the fundamental relationships between the use of intangible-based costs and the design of CEO compensation still shine-through after controlling for industry fixed-effects.

However, the inclusion of the industry controls causes important differences in the associations between the forms of managerial compensation and depreciation. In Table 2 it appears that there is a positive relationship between depreciation and bonus compensation. But, this vanishes in Table 3. On the other hand, after controlling for industry effects, there is weak evidence (at the 90% confidence level) of a positive relationship between option grants and depreciation expenses.

The results for the two models of the relationship explaining the price-performance-sensitivity of CEO equity portfolios are given in Table 4.

Table 4		
OLS Regression Results		
Price Performance Sensitivity of CEO Equity Portfolios		
<p>PPS – Price-Performance-Sensitivity of CEO equity portfolios, LASS – Logarithm of Total Assets, TEN – CEO Tenure, LEV – Debt-to-Asset Ratio, D-DIV Dummy variable for dividend paying firms, D-FIN – Dummy variable for Financial Firms, ROE – Return on Equity, RET – Annual stock return, SDS – Standard Deviation of Stock Return, ADRD – Advertising and R&D expenses as a portion of total expenses, DEP – Depreciation expenses as a portion of total expenses</p> <p>p-values shown below coefficient estimates in parentheses</p>		
Variable	PPS No Industry Controls	PPS With Industry Controls
Intercept	0.0606 (<i><.0001***</i>)	
LASS	-0.0072 (<i><.0001***</i>)	-0.0028 (<i><.0001***</i>)
TEN	0.0034 (<i><.0001***</i>)	0.0027 (<i><.0001***</i>)
LEV	0.0056 (<i>0.0631*</i>)	-0.0081 (<i>0.0055***</i>)
D-DIV	-0.0011 (<i>0.5214</i>)	0.0036 (<i>0.0253**</i>)
D-FIN	0.0126 (<i><.0001***</i>)	
ROE	-0.0004 (<i>0.4267</i>)	-0.0003 (<i>0.4514</i>)
RET	0.0056 (<i>0.0049***</i>)	0.0062 (<i>0.0005***</i>)
SDS	0.0112 (<i>0.0262**</i>)	0.0670 (<i>0.0247**</i>)
ADRD	-0.0278 (<i>0.0001***</i>)	-0.1405 (<i>0.0899*</i>)
DEP	-0.0301 (<i><.0001***</i>)	-0.1204 (<i>0.1435</i>)
Obs	5,096	4,871
Adj – R-Sq	0.2224	0.4697
F-Value	146.74***	74.13***
<p>*- significant at 90% level, ** - significant at 95% level, *** - significant at 99% level</p>		

Because of the nature of the dependent variable, these models are estimated using and OLS specification rather than Tobit. The R² of the model without industry controls is about 22%, and that with the dummy variables for industry fixed-effects is about 47%.

The coefficients and signs on the control variables suggest the price-performance-sensitivity of the managerial portfolios are positively correlated with CEO tenure, the dummy for financial services firms, stock return, the annualized standard deviation of daily stock returns. It is negatively correlated with firm size. Also, after controlling for industry, there is evidence of a positive relationship with the debt-to-asset ratio and the dummy variable for dividend paying firms.

In the specification without industry controls, there is significant evidence that the price-performance-sensitivity of CEO equity portfolios are negatively correlated with both the portion of advertising and R&D expenditures and with depreciation expenses. But, the significance of these relationships is markedly weaker or vanishes after including the dummies for industry fixed-effects. So, the industries seem to better explain the price-performance-sensitivity than the intangible and tangible based expenses.

Summary and Conclusions

The level of expenditures on intangible advertising and R&D activities by North American firms seems to have a significant impact on the annual CEO compensation contracts. Executive option grants are positively related to these expenses, and salary, bonuses and restricted stock grants are negatively correlated. This difference between option grants and restricted stocks is intriguing, but there is prior evidence of a positive association between R&D spending and option grants, and also for a negative relationship with restricted stock grants.

There is less support for relationships of CEO compensation and tangible depreciation expenditures. Without controls for industry, there appears to be a negative relationship between bonus compensation and depreciation. But, this association vanishes after controlling for industry fixed-effects.

There is also some evidence of a negative relationship of the levels of intangible and tangible expenses are related with the price-performance-sensitivity of CEO equity portfolios. But, this also is diminished or disappears after controlling for industry.

In sum, there are clear relationships of advertising and R&D expenditures with the components of annual CEO compensation; and these correspond to most earlier theoretical conjectures and with prior empirical findings. But, any relationships of CEO compensation design with depreciation seem to be swamped by the typical pay package design in the industries. The observed negative relationships of the price-performance-sensitivity of CEO equity portfolios with advertising, R&D and with depreciation expenditures, are also over-whelmed when industry fixed-effects are included in models.

References

- [1] Aboody, D. & B. Lev (2000) Information asymmetry, R&D and insider gains. *Journal of Finance*, 55, 2747 – 2766.
- [2] Anderson, M.C., R.D. Banker & S. Ravindran (2000) Executive compensation in the information technology industry. *Management Science*, 46, 530-547.
- [3] Banker, R.D., D. Byzalov & C. Xian (2013) Research & development intensity and executive compensation. Temple University Working Paper
- [4] Bebchuk, L.A. & Y. Grinstein (2005) The growth of executive pay. *Oxford Review of Economic Policy*, 21, 283-303.
- [5] Bell, T.B, W.B. Landsman, B. L. Miller & S. Yeh (2002) The valuation implications of employee stock option accounting for computer software firms. *The Accounting Review*, 77, 971-996.
- [6] Bryan, S., L.S. Hwang & S. Lilien (2000) CEO stock-based compensation: An empirical analysis of incentive-intensity, relative mix, and economic determinants. *Journal of Business*, 73, 661-693.
- [7] Chan L.K.C., J. Lakonishok & T. Sougiannis (2001) The stock market valuation of research and development expenditures. *Journal of Finance*, 56, 2431 –2456.
- [8] Core, J.E. & W.R. Gaudy (2002) Estimating the value of employee stock option portfolios and their sensitivities to price and volatility. *Journal of Accounting Research*, 40, 613-630.
- [9] Core, J.E., W.R. Gaudy & D.F. Larcker (2003) Executive equity compensation and incentives: A survey. *Federal Reserve Bank of New York Economic Policy Review*, 9, 27-50.
- [10] Gaver, J.J. & K.M. Gaver (1995) Additional evidence on the association between the investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Accounting and Economics*, 16, 125-160.
- [11] Greene, W.H. (2012) *Econometric Analysis* (Seventh ed.), Prentice Hall, Upper Saddle River, NJ.
- [12] Hall, B.J. & J.B. Liebman (1998) Are CEOs really paid like bureaucrats? *Quarterly Journal of Economics*, 113, 653-691.
- [13] Hall, B.J. & K.J. Murphy (2002) Stock options for undiversified executives. *Journal of Accounting and Economics*, 33, 3-42.
- [14] Himmelberg, C.P., R.G. Hubbard & D. Palia (1999) Understanding the determinants of managerial ownership and the link between ownership and performance. *Journal of Financial Economics*, 53, 353-384.
- [15] Holthausen, R.W., D.F. Larcker & R.G. Sloan (1995) Annual bonus schemes and the manipulation of earnings. *Journal of Accounting and Economics*, 19, 29-74.
- [16] Ittner, C.D., R.A. Lambert & D.F. Larcker (2003) The structure and performance consequences of equity grants to employees of new economy firms. *Journal of Accounting and Economics*, 34, 89-127.
- [17] Jensen, M.C. & K.J. Murphy (1990) Performance pay and top-management incentives. *Journal of Political Economy*, 98, 225-264.
- [18] Kole, S.R. (1997) The complexity of compensation contracts. *Journal of Financial Economics*, 43, 79-104.
- [19] Lewellen, W.G., C. Loderer & K. Martin (1987) Executive compensation and executive incentive problems: An empirical analysis. *Journal of Accounting and Economics*, 9, 287-310.
- [20] Lord, R.A. & Y. Saito (2010) Trends in CEO compensation and equity holdings for S&P 1,500 firms: 1994 – 2007. *Journal of Applied Finance*, 20, 40-56.
- [21] Lord, R.A. & Y. Saito (2012) Does compensation structure alleviate personal CEO risks? *Journal of Business Finance and Accounting*. 39, 1272-1297.
- [22] Murphy, K.J. (1985) Corporate performance and managerial remuneration: An empirical analysis. *Journal of Accounting and Economics*, 7, 11-42.
- [23] Murphy, K.J. (2003) Stock-based pay in new economy firms. *Journal of Accounting and Economics*, 34, 129-147.
- [24] Palia, D. (2001) The Endogeneity of managerial compensation in firm valuation: A solution. *Review of Financial Studies*, 14, 735-764.

- [25] Ryan, H.E. & R.A. Wiggins (2001) The influence of firm and manager-specific characteristics on the structure of executive compensation. *Journal of Corporate Finance*, 7, 101-123.
- [26] Ryan, H.E. & R.A. Wiggins (2002) The interaction between R&D investment decisions and compensation policy. *Financial Management*, 31, 5-29.
- [27] Smith, C.W. & R.L. Watts (1992) The investment opportunity set and corporate financing, dividend and compensation policies. *Journal of Financial Economics*, 32, 263-292.
- [28] Wooldridge, J.M. (2002) *Econometric Analysis of Cross Section and Panel Data*, MIT Press, Cambridge, Mass.
- [29] Yermack, D. (1995) Do corporations award CEO stock options effectively? *Journal of Financial Economics*, 39, 237-269.

Investigating how inter-firm relational features influence absorptive capacity and content creativity of a joint production team: focusing on media content business

Moon, Joonseo, james2077@gmail.com

Lee, Wonjun, ggoglee@gmail.com

Sungkyunkwan University, South Korea

Investigating how inter-firm relational features influence absorptive capacity and content creativity of a joint production team: focusing on media content business

Abstract

This study investigates the intangible processes involved in creation of creative contents in the broadcasting media industry where a broadcasting company frequently outsources production of its broadcasting contents to an independent production company. This production company typically organizes a production team which will be in charge of producing the contents. This study deals with the factors that influence creativity of the contents produced by the team. The research model proposes that inter-firm relationship features between the two companies affect the contents creativity and also that this causal relationship is mediated by work environment for creativity and learning capability of the production team.

A PLS analysis of the survey responses from 123 production teams indicates that inter-firm relational features defined by relational rents (Dyer & Singh, 1988) influence the contents creativity indirectly through work environment for creativity (Amabile 1996) and absorptive capacity (Zahra & George 2002). Specifically, we find that relational features such as resource complementarity and effectiveness of governance improve the organizational support for creativity and increase absorptive capacity of the production teams. Further, organizational support for creativity not only influences the creativity directly but also indirectly through enhanced realized absorptive capacity of the production team. Although this study deals with one single industry, i.e. broadcasting industry, its results offer significant implications for other related contents industries because of widespread outsourcing practices employed by many content aggregation and distribution firms.

Keywords: Relational Rents, Absorptive Capacity, Organizational Motivation, Creativity

Introduction

Many existing studies have claimed that outsourcing has a positive effect on the production process in the ICT or manufacturing industries by reducing costs and risks. However, in content industries (e.g., broadcasting, movie, and animation), which are not standardized and are based on the creativity of the resulting media, processes and cost reductions are not helpful by themselves.

In this study, we examine how creativity, which has an intangible value, affects cooperative relationships between industries. Creativity is mainly affected by management of existing knowledge. A relationship with a cooperative firm is an important factor that affects a company's intra-organizational structure, and thus, our research focuses on the flow and changes of this relationship. A firm that cannot maintain all capabilities and resources contracts business processes to third parties as outsourcing or off-shoring. In addition, large companies often relocate their main business functions to other SMEs to reduce risks and costs. In case of networks in Korea, 20–30% of all broadcasting content is produced through outsourcing to small independent productions to avoid, for example, regulations, high taxes, high energy costs, and costs associated with benefits defined in labor union contracts and those mandated by the government. Organizations in the media content industry, such as broadcasting stations (networks), have significant completion and creativity in their content quality because a large portion of their income depends on advertising and content sales. In particular, broadcasting is sensitive to the cognition of the audience because it has characteristics of experience goods. Therefore, highly differentiated content plays a critical role in increasing the competency of broadcasting stations. In this study, we attempt to outline an alternative reading of the causal model of the cooperative relationship between outsourcing production and broadcasting stations, and we review the level of completion and creativity of their content through objective research.

Empirical approaches to dealing with creative cooperation issues

Because broadcasting stations do not possess all capacity, they entrust some of the production to independent production as an outsourcing. Independent production is concerned with significantly more than new sources of media contents; in addition, it appeals to a new paradigm in broadcasting. However, in the competitive broadcasting industry, major broadcasting stations see independent production as a function for attaining higher levels of efficiency and not

as alternative sources of programs. It is critical to emphasize the relationship between these types of specialized businesses that promote creative content.

In the case of Korea, vertical business relationships between the independents(outsourcing) and the broadcasting station(ordering) are created because content syndication is not vitalized in industry. This industry environment complicates the development of creative content. Before research analysis, the face to face interview was conducted on 11 producers working in broadcasting stations. Through the this interview, we found the main topic of this research and recognized the key factors of environmental problems that we must address this research.

First, the problems for self-produced programs and outsourced production differ. In the self-production system, unstable investment for production and lack of manpower are the most critical. In the outsourced production system, conventional production systems forced by the ordering organization (i.e., the broadcasting station) and its excessive intervention are the most difficult to overcome. The self-production system can be characterized as having a resource issue, whereas an outsourced production focuses on intangible issues regarding the relations between organizations. Thus, the tangible factors of relational rents and organizational climate (which have high value at the single-firm level) are less significant between multiple organizations than in the single-firm case.

Second, the characteristics of the knowledge process differ between self-production and outsourced production systems. Among the respondents who discussed self-production, none mentioned a regular routine for absorbing and sharing knowledge on an organizational basis. At the single-firm level, the case where knowledge is transferred individually among teams is more frequent than that of the inter-firm level. On the inter-firm level, regular knowledge-sharing routines, such as reports and reviews, are important processes of production. From this result, a formation of knowledge-sharing routines in the production process of outsourced programs is easily affected by relations between firms.

The summarized description of the interview result is discussed in Fig 1. Through these industrial issues from pre-interview, some factors of the fieldwork are recognized and matched to the constructs of relational rents. For more practical results, we applied these concepts to the operational definition of survey tools for this research model.

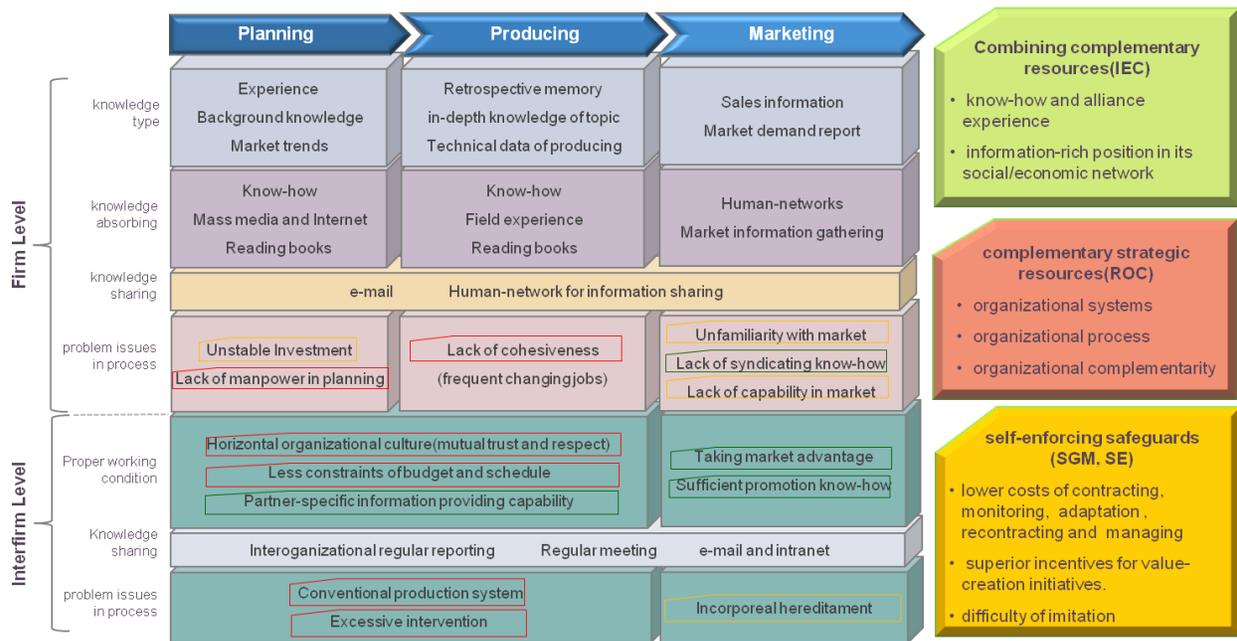


FIG 1. SUMMARY OF THE DEPTH INTERVIEW

Theoretical Background and Hypotheses

Relational View of Organizational Motivation and Absorptive Capacity

Relational Rents The concept of relational rents is suggested by Dyer and Singh (1998). They define a relational rent as “a supernormal profit jointly generated in an exchange relationship that cannot be generated by either firm in isolation and can only be created through the joint idiosyncratic contributions of the specific alliance partners.” This concept proved to be particularly applicable to explain the advantages of the interorganizational relationships of M&A and outsourcing. Relational view of interorganizational competitive advantages contributes to our understanding of how firms achieve above-normal returns.

Porter’s (1980) ‘Industry structure view’ provides insight that supernormal returns are primarily a function of a firm’s membership in an industry with favorable structural characteristics (e.g., relative bargaining power and barriers to entry). ‘The resource-based view (RBV)’ of the industry argues that differential firm performance is fundamentally due to firm heterogeneity rather than industry structure (Rumelt, 1984, 1991; Wernerfelt, 1984). To explain the interorganizational competitive advantage, Madhok (1998) comments that partnerships are especially valuable when they provide firms with an avenue for the sustained earning of rents in situations where competitive advantages require the synergistic combination of resources that a firm is unable to purchase through a market transaction or to develop internally in a timely and cost-effective manner.

Among the determinants of relational rents, ‘relation-specific assets’ are essential for a given transaction and cannot be redeployed for another transaction with no cost. In addition, once the asset is in place, the other party to the contract cannot be replaced without cost, because the parties are locked into the relationship to some degree. A firm has to find advantages by creating assets that are specialized in conjunction with the assets of an alliance partner (Dyer & Singh, 1998). Asset specificity enhances the trust between partners, which in turn leads to more cooperative behavior and higher partnership performance.

Organizational Motivation The componential model of Amabile (1988) for creativity and innovation in organizations has received relatively little attention from creativity research. According to this research, organizational motivation to innovate is a basic orientation of the organization toward innovation, as well as support for creativity and innovation throughout the organization. We define organizational motivation as a main factor for explaining the causal model of creative work and absorptive capacity. Motivation is not a goal in itself but serves to support a firm’s goals. The behavioral view of organization emphasizes intrinsic motivation, an approach that has had a long tradition in motivation-based organization theory (Argyris, 1964; Likert, 1961; McGregor, 1960).

Absorptive capacity Absorptive capacity is a firm’s ability to identify valuable external knowledge, assimilate or transform this knowledge into the firm’s knowledge base, and apply this new knowledge through innovation and competitive actions (Cohen & Levinthal, 1990). It can also be defined as a set of organizational routines and processes by which firms acquire, assimilate, transform, and exploit knowledge to produce a dynamic organizational capability (Zahra & George, 2002).

Our study adopts the framework developed by Zahra and George (2002). They posit that acquisition and assimilation capabilities are dimensions of potential capacity (PACAP), and that transformation and exploitation capabilities are those of realized capacity (RACAP). The theoretical distinction between potential absorptive capacity and realized absorptive capacity is important in evaluating the capacities’ unique contributions to a firm’s competitive advantage (Zahra & George, 2002). Potential absorptive capacity is significantly influenced by external sources and knowledge complementarity. Realized absorptive capacity represents ‘the ability to develop routines that facilitate combining existing knowledge with new knowledge’ and ‘the routines that allow firms to refine, extend, and leverage existing competences or create new ones by incorporating acquired and transformed knowledge into their operations’.

Furthermore, Zahra and George (2002) said that this distinction explains the reason why certain firms are more efficient than others in using existing absorptive capacity. Distinguishing between “potential absorptive capacity” and “realized absorptive capacity” shows that some firms are inefficient in leveraging their potential absorptive capacity, and therefore cannot improve their performance. First, the differing functions between these two concepts shows the various methods by which these two components contribute toward building the firm’s competitive advantage (Zahra & George, 2002). Second, exogenous and endogenous forces may influence potential

absorptive capacity and realized absorptive capacity differently, indicating that different managerial roles are necessary to nurture and harvest these two components of absorptive capacity (Zahra & George, 2002). Finally, a distinction between 'potential absorptive capacity' and 'realized absorptive capacity' provides a basis for observing and examining the fluid and nonlinear paths that organizations may follow in developing their core competencies.

Relational View of Organizational Motivation We argue that integrative interorganizational process mechanisms between the ordering (i.e., the broadcasting station) and outsourcing (i.e., an independent production) organizations can influence organizational creativity. To analyze this relationship, the relational rents of Dyer and Singh (1998) provide some groundwork for this study. Organizational creative performance is increased by the employment of organic organizational designs (Woodman et al., 1993). Wang et al. (2008) indicated that relational specific assets are important factors influencing organizational creativity indirectly. Both management support and open-mindedness positively affect the generation of creativity in interorganizational relationships (Wang et al., 2008). When two organizations perceive benefits from mutual interaction, the mutual motivation for interaction is high. The governance mechanisms (i.e., trust and contractual governance) significantly affect the conditions that facilitate inter-organizational creativity in interorganizational relationships (Wang et al., 2008). From these discussions, we can infer the relationship between determinants of relation-specific assets and organizational motivation. This reasoning leads to the following hypothesis.

H1: As an organization's 'relation-specific assets' increases in intensity, its level of 'organizational motivation' increase.

Relational View of Absorptive Capacity Dyer and Hatch (2004) describe how Toyota developed a competitive advantage with selected suppliers through superior knowledge-sharing processes. Increasing familiarity through interorganizational relationships and through belonging to a community increases an organization's absorptive capacity (Beise & Stahl, 1999; McMillan, Narin, & Deeds, 2000; Meyer-Krahmer & Meyer-Krahmer, 1998). Lane and Lubatkin (1998) infer from the compensation literature that the similarity of two firms' compensation policies serves as a proxy for the similarity of their knowledge-processing systems and norms. This suggests that the ability to assimilate new external knowledge is in part a function of the relative similarity of the ordering and outsourcing firms' compensation practices. Partner-specific interorganizational relationships allow a firm to enhance its absorptive capacity (Bowman & Hurry, 1993). Dyer and Singh (1998) also state that partner-specific absorptive capacities facilitate relational rents as determinants of interorganizational competitive advantages. From these discussions, we can infer the relationship between determinants of relational rents and organizational motivation. This reasoning leads to the following hypothesis.

H2a: As an organization's 'relation-specific assets' increases, its level of 'potential absorptive capacity' increases.

H2b: As an organization's 'relation-specific assets' increases, its level of 'realized absorptive capacity' increases.

Organizational Motivation and Absorptive Capacity Some researchers have shown the effect of organizational scope on absorptive capacity. Bowman and Hurry (1993) and McGrath (1997) use a real options approach to argue that allocating resources toward gaining experience in relatively unfamiliar areas helps maintain some absorptive capacity in those fields. According to the literature review, we consider organizational motivation as a representative factor explaining organizational creativity. Motivation promotes a working environment that expedites both formal and informal communication, which entails greater transfer and acquisition of knowledge as well as the development of behaviors that strengthen organizational learning (Slater & Narver, 1995). In particular, intrinsic motivation favors a decision-making consensus, which requires a significant commitment among different groups of employees (Walsh, 1995). The thought processes, idea generation systems, and motivation of creativity mechanisms are likely to facilitate the analysis and interpretation of the existing and newly acquired knowledge.

H3a: As an organization's 'organizational motivation' increases, its level of 'potential absorptive capacity' increases.

H3b: As an organization's 'organizational motivation' increases, its level of 'realized absorptive capacity' increases.

As we commented above, we distinguished between potential absorptive capacity and realized absorptive capacity to observe the mechanism of relational rents and organizational creativity in an interorganizational environment. Therefore, we create a temporary hypothesis of absorptive capacity for this research.

H4: As an organization's level of 'potential absorptive capacity' increases, its level of 'realized absorptive' capacity increases.

Content Creativity of Joint Production Team

Content Creativity Besemer and Trefiger (1981) suggest a creative product analysis matrix (CAPM) theory for measuring output creativity. The purpose of CAPM theory is to help cultivate more careful observation of created products and to focus judges' attention on relevant attributes of products by creating a three-factor model of creativity, which includes novelty, resolution, and elaboration, and synthesis. Novelty is newness in materials, processes, concepts, and methods of making the product, resolution considers aspects of how well the product works or functions, and elaboration and synthesis present stylistic components of the product. In addition, composing these three factors are nine facets: originality and surprise comprise novelty; logical, useful, valuable, and understandable make up resolution; and organic, well-crafted, and elegant form elaboration and synthesis (Besemer & Treffinger, 1981; Besemer & O'Quin, 1999).

Content Creativity through Organizational Motivation and Absorptive Capacity In this study, we define organizational motivation as a core factor for creative performance. Many existing studies have focused on the importance of motivation for creative work and have suggested that people rarely do truly creative work in an area unless they really like what they are doing and concentrate on the work rather than on the potential rewards. At the interorganizational level, the learning orientation stimulates the generation of creative ideas or approaches because firms are genuinely interested in mastering opportunities to exploit the potential of relationships with other firms (Wang et al., 2008). Absorptive capacity influences innovative performance and is essential for enhancing creativity (Cohen & Levinthal, 1989). They posit that the ability of an organization to recognize and use external information is crucial for innovation. Absorptive capacity increases the speed and frequency of incremental innovation because such innovations draw primarily on the firms' existing knowledge base (Helfat, 1997; Kim & Kogut, 1996).

H5 : As an organization's 'organizational motivation' increases, its level of 'content creativity' increases.

H6 : As an organization's 'realized absorptive capacity' increases, its level of 'content creativity' increases.

Research Model and Analysis

Research Model and validity test

We analyzed the effects that the main factor of relational rents have on organization results through the organizational factors, absorptive capacity, and organizational creativity. Relational rents' components regarding contractual objects are based on the study of Dyer and Singh (1998). Absorptive capacity and organizational motivation are characteristic causes that mediate relational rents and organization's creative results. Absorptive capacity has been measured using two factors, potential absorptive capacity(PACAP) and realized absorptive capacity(RACAP)(Zahra&George, 2002).

Zahra and George (2002) assert that external and internal factors have different effects on PACAP and RACAP; thus, to develop and apply the two absorption capacities, we need a different management approach for each. In other words, exact study results rather than simple theoretical cause-and-effect models are found by analyzing the effects that relational rents and organizational motivation have on these two factors. Reflecting interview result and literature review, we made our research model as Fig 2.

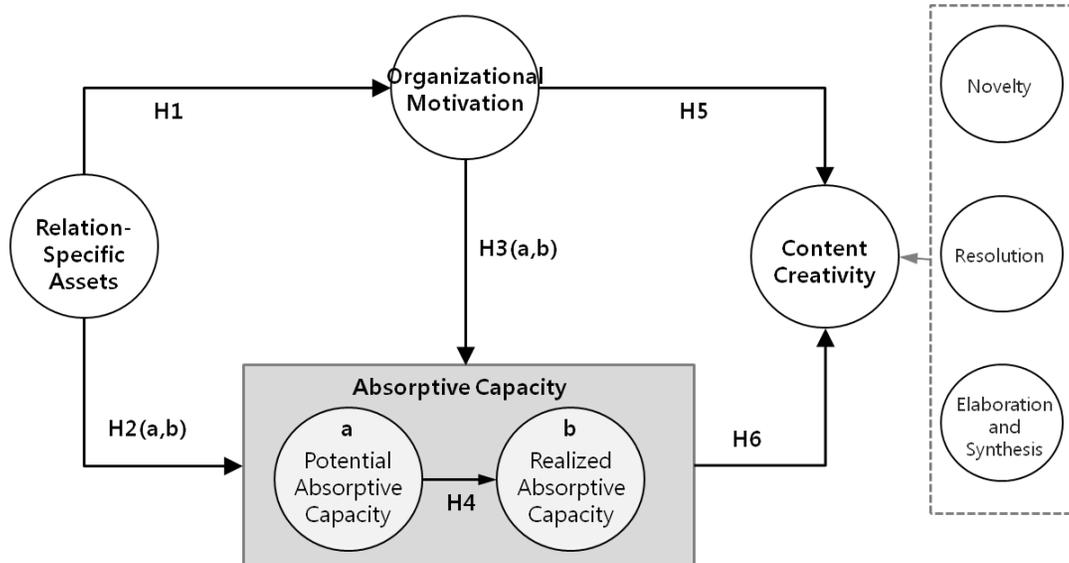


FIG 2. RESEARCH MODEL

A total of 163 survey forms were collected from independent production companies. In total, 40 samples were removed because of monotone responses and too many missing answers. The final dataset contained 123 valid responses. The sample characteristics reflected typical producers who produce broadcasting program outsourced by TV broadcasting companies, including terrestrial and cable networks. For each TV program, one response was collected using email or direct interviews over a period of 3 months. Table 1 summarizes the demographic information.

TABLE 1. SAMPLE DEMOGRAPHICS

Seg	Executive Producer (EP)	Chief Producer (CP)	Producer(PD)	Assistant Director (AD)	Etc	Total
Number of samples	17	16	68	6	16	123
Ratio	13.82%	13.01%	55.28%	4.88%	13.01%	100.00%

We used the Partial Least Square (PLS; Fornell & Bookstein, 1982) method to analyze the data from the survey for our research study. The PLS method is a well-established technique for estimating path coefficients in causal models and can be used to analyze the significance of the hypotheses using a bootstrap resampling. Construct validity is defined as the degree to which an operational measure correlates with the theoretical concept investigated. In this study, confirmatory factor analysis was conducted to assess the overall measurement models and to examine the convergent and discriminant validity. As shown in Table 2, all constructs satisfied this requirement.

TABLE 2. RESULTS OF VALIDITY TESTING

Construct	Convergent validity test					Discriminant validity test						
	AVE	Compo site	R Square	Cronbach's Alpha	Communality	ELS	NVT	OGM	RSA	RSL	RACAP	PACAP

	(>0.5)	Reliability (>0.7)	(>0.1)	(>0.7)	(>0.5)							
Elaboration and Synthesis (ELS)	0.809	0.927	0.843	0.882	0.809	0.900						
Novelty (NVT)	0.857	0.947	0.792	0.916	0.857	0.741	0.926					
Organizational motivation (OGM)	0.679	0.914	0.232	0.882	0.679	0.706	0.732	0.824				
Relation-specific asset (RSA)	0.515	0.807		0.716	0.515	0.480	0.364	0.482	0.718			
Resolution (RSL)	0.859	0.948	0.786	0.918	0.859	0.737	0.653	0.652	0.434	0.927		
Realized absorptive capacity (RACAP)	0.856	0.973	0.699	0.966	0.856	0.585	0.602	0.644	0.440	0.549	0.925	
Potential absorptive capacity (PACAP)	0.830	0.951	0.291	0.931	0.830	0.590	0.513	0.507	0.407	0.417	0.785	0.911

Note1. Shaded cells are square root of AVE scores

Structural Model Test

The structural model outcomes are presented in Fig 3. As a result, all R^2 are higher than 0.1. The R^2 value evaluates the explanatory power of each constructs. Both the main constructs of the hypothesis and the second-order constructs had R^2 values over the referenced level. The t-values are calculated using repetitive bootstrapping procedures, with 123 resampling iterations for both models. When calculated in Smart PLS, value of cases is set to 123 and that of samples is 500. Test results are summarized in in Table 2 and Fig 3.

TABLE 2. HYPOTHESIS TEST RESULT

Hyp.	Path	Coefficient(Std.error)	t-value	Test result
H1	Relation-specific assets → Organizational Motivation	0.482 (0.087)	5.482	Supported
H2a	Relation-specific assets → Potential Absorptive Capacity	0.211 (0.106)	2.006	Supported
H2b	Relation-specific assets → Realized Absorptive Capacity	0.040 (0.070)	0.564	Not Supported
H3a	Organizational Motivation → Potential Absorptive Capacity	0.405 (0.097)	4.011	Supported
H3b	Organizational Motivation → Realized Absorptive Capacity	0.316 (0.111)	2.662	Supported
H4	Potential Absorptive Capacity → Realized Absorptive Capacity	0.609 (0.144)	3.977	Supported
H5	Organizational Motivation → Content Creativity	0.617 (0.087)	7.078	Supported
H6	Realized Absorptive Capacity → Content Creativity	0.247 (0.094)	2.652	Supported

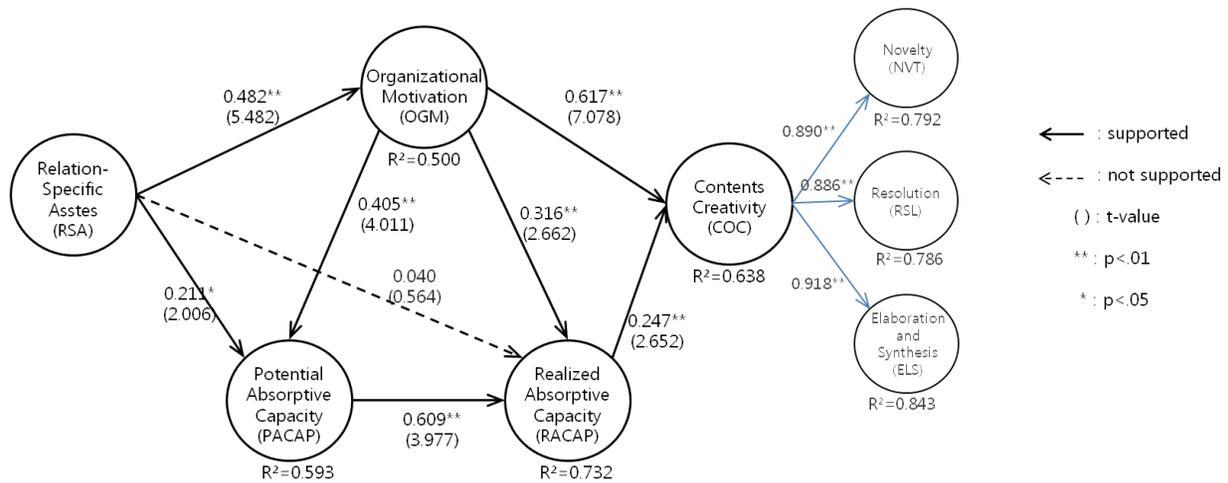


FIG 3. PLS RESULTS FOR RESEARCH MODEL

The remainder of the hypotheses were determined by testing the positive sign and statistical significance of the t-value for its corresponding path. As a result, all hypotheses except for H2b are supported ($p < 0.05$), but, H2b related to realized absorptive capacity is not ($p > 0.05$). Thus, relation-specific asset between two firms does not affect realized absorptive capacity. From this result, we can recognize that the different function between potential absorptive capacity and realized absorptive capacity affects the process of both determinants of relational rents and organizational motivation.

Conclusion

The determinants of relational rents, organizational motivation, and absorptive capacity exist in an indivisible circular relationship. Determinants of relational rents, organizational motivation, and absorptive capacity are shown to have a meaningful effect on creative results. In short, we infer that organizational motivation and absorptive capacity mediate relation-specific assets and content creativity through an empirical analysis.

The determinant of Relational rents, relation-specific assets, is formed through various relationships between industries and these relationships critically affect the project's outcome. In this study, we investigate the effects that the factor formation of relations of broadcasting stations and outsourced production have on knowledge management activity. Furthermore, we determine the meaningful effects that these relationships have on the organization's creativity formation process. If a strong relationship is achieved between the broadcasting stations and the outsourced productions, it has a positive influence on organizational creativity and absorptive capacities.

Zahra and George (2002) note that external and internal factors have different effects on potential absorptive capacity and realized absorptive capacity. In this study, we have verified that potential absorptive capacity and realized absorptive capacity have different effects on the result of the project. From the structural model, we can confirm that a strong link between ordering and outsourcing companies allow a coproduction team to release relational rents or long-term mutual creative benefits derived from long-term cooperative relations. Good relations with clients deliver rents to the design firm as they facilitate creative and innovative work (Sunley et al., 2008).

In this study, we analyzed the determinants of relational rents, organizational motivation, and absorptive capacity in cooperative relationships to generate content creativity. Although the determinants of relational rents increase between two firms, the cause-and-effect relationship of output's creativity can be determined by organizational creativity and absorptive capacity in a cooperative organization.

First, we analyzed the cooperative knowledge mechanism of an unmeasurable but qualitative result, creative content. Unlike the manufacturing industry, the content industry cannot standardize its product output. In particular,

broadcasting content maintains characteristics of public goods and has high fixed costs but low marginal costs because it has a different value chain than other general manufacturing products that leads to sales. Therefore, the quality of the results is not determined by lowering the manufacturing cost, shortening the lead time, and increasing sales volume; rather, it is measured by intangible values such as creativity and completeness. We have setup a theoretical model and verified our hypotheses based on existing studies to prove the effects on the cooperating process of knowledge flow, which is the most important factor for the knowledge industry.

Second, we provided two theoretical frames, organizational motivation and absorptive capacity, as mediators of the processes that the determinants of relational rents are affected by through interorganizational cooperation. Through this modeling, we verified that determinants of relational rents formed by organizational cooperation have indirect effects on an organization's creative result, which is explained as relational rents. In short, this study takes a major step in the development of the determinants of relational rents as a main factor effective on output creativity through cooperative system between firms. Theoretically, this study provides a new research model for this proof, reestablishing existing theory.

Lastly, this study is conducted for the case of broadcasting content, a single field, but it can be applied to various situations related to the knowledge industry. Broadcasting content, as a knowledge resource, has the same characteristics as information goods. Additionally, information is produced by horizontal cooperation or vertical contract relationships in many fields. Considering this context, this study result can be applied to various perspectives of studies related with cooperation of organizations and improvement of creativity in industry fields that require intangible value.

References

- [1] Amabile, T. M.(1996) "Creativity in Context.", Boulder, CO: Westview Press, 1996.
- [2] Amabile, T. M. (1998). How to kill creativity. *Harvard Business Review*, 76(5), 76-87.
- [3] A. Madhok and S. B. Tallman,(1998) "Resources, transactions and rents: Managing value through interfirm collaborative relationships," *Organization Science*, vol.9, no.3, pp. 326-339
- [4] Argyris, C. (1964). "Integrating the Individual and the Organization". Wiley,New York.
- [5] Beise, M., & Stahl, H.(1999). "Public research and industrial innovations in Germany.", *Research Policy*, 28: 397-422.
- [6] Besemer, S. P., & Treffinger, D. J. (1981). Analysis of creative products: Review and synthesis. *Journal of Creative Behavior*, 15, 158-178.
- [7] Bowman, E. H., & Hurry, D. (1993). "Strategy through the option lens: An integrated view of resource investments and the incremental-choice process.", *Academy of Management Review*, 18: 760-782.
- [8] Cohen and Levinthal (1989), "Innovation and learning: The two faces of R&D", *The Economic Journal*, Volume 99, September pg. 569-596.
- [9] Cohen and Levinthal (1990), "Absorptive capacity: A new perspective on learning and innovation", *Administrative Science Quarterly*, Volume 35, Issue 1 pg. 128-152.
- [10] Dyer, Jeffrey H. and Nile Hatch (2004). "Using Supplier Networks to Learn Faster" *Sloan Management Review*. Spring Issue, Vol. 45. No. 3, 57-63.
- [11] Dyer, Jeffrey H, Harbir Singh. (1998): The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, Vol. 23, pp. 660~679.
- [12] Fornell, C. G., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- [13] Fornell, C., & Bookstein, F. L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing Research (JMR)*, 19(4), 440-452.
- [14] Helfat, C. E.(1997). Know-how and asset complementarity and dynamic capability accumulation: The case of R&D. *Strategic Management Journal*, 18: 339-360.
- [15] Kim, D. J., & Kogut, B.(1996). Technological platforms and diversifications. *Organization Science*, 17: 283-301.
- [16] Lane, P. J., & Lubatkin, M.(1998). Relative absorptive capacity and interorganizational learning. *Strategic Management Journal*, 19: 461-477.
- [17] Likert, R. (1961). "The New Patterns Of Management". McGraw-Hill, New York.
- [18] McGregor, D.(1960). "The Human Side of Enterprise". McGraw-Hill, New York.
- [19] McMillan, G. S., Narin, F., & Deeds, D. L.(2000). An analysis of the critical role of public science in innovation: The case of biotechnology. *Research Policy*, 29: 1-8.
- [20] Meyer-Krahmer, F., & Meyer-Krahmer, F.(1998). Science-based technologies: University-industry interactions in four fields. *Research Policy*, 27: 835-851.
- [21] Porter, M. E. (1980). *Competitive strategy*. New York: Free Press.
- [22] Q. Wang et al.,(2008)"Creativity in buyer-seller relationships: The role of governance", *Intern. J. of Research in Marketing* 25 (2008) 109-118
- [23] Rumelt, R. P. (1984).Towards a strategic theory of the firm. In R. B. Lamb (Ed.). *Competitive strategic management: 556-571*. Englewood Cliffs. NJ: Prentice-Hall.
- [24] Susan P. Besemer & Donald J. Treffinger(1981), Analysis of Creative Products: Review and Synthesis, *The Journal of Creative Behavior* Volume 15, Issue 3, pages 158-178
- [25] Susan P. Besemer & Karen O'Quin, Confirming the Three-Factor Creative Product Analysis Matrix Model in an American Sample, *Creativity Research Journal*,(1999) 12:4, 287-296
- [26] Walsh, J.P. (1995),"Managerial and organizational cognition: notes from a trip down memory lane", *Organization Science*, Vol. 6 No. 3, pp. 280-321.
- [27] Wernerfelt, B. (1984). A resource based view of the firm. *Strategic Management Journal*. 5: 171-180.

[28] Zahra and George (2002), "Absorptive Capacity: A Review, Reconceptualization, and Extension", *Academy of Management Review*, Volume 27, Issue 2, pg.185-203.

**Examining the Role of Short Break on Proactive Behavior:
A Self-Regulatory Resource Perspective**

*Kan OUYANG, kathryn.ouyang@connect.polyu.hk
Wing LAM, mswing@polyu.edu.hk
Libin SHEN, charles.shen@polyu.edu.hk
The Hong Kong Polytechnic University, Hong Kong*

*Ziguang CHEN, mgzgchen@cityu.edu.hk
City University of Hong Kong, Hong Kong*

Examining the Role of Short Break on Proactive Behavior: A Self-Regulatory Resource Perspective

Abstract

Responding to the increasing research interest in the negative consequences of employees' proactive behavior, we investigate the negative effect of proactivity on well-being by focusing on the level of fatigue felt by individuals. We further examine the effect of taking a short break on sustaining proactivity. Drawing on the self-regulatory resource theory, we propose a positive relationship between proactive behavior and fatigue, but suggest that a short break could enhance the individual's ability to resume proactivity in a subsequent task. Through two laboratory experiments involving a total of 116 participants, we identified a positive association between sustained proactive behavior and fatigue. Additionally, we show that a break or short period of relaxation increased subsequent level of proactive behavior. Our findings suggest that keeping engaging in proactive behavior consumes self-regulatory resource, and hence leads to greater fatigue. However, this detrimental effect may be temporary if an appropriate intervention, such as a short break, is applied.

Introduction

Employees' proactive behavior at work, which can be characterized by the exercise of initiative, a change focus, and an orientation towards the future, is receiving increasing amounts of attention from organizational behavior researchers. Employees behave proactively in order to cope with rapid changes in the structure of work and the increasingly complicated and dynamic working environment (Belschak, Den Hartog, & Fay, 2010). Studies of proactivity consistently suggest that it has beneficial outcomes.

Nevertheless, since proactive behavior requires extra effort and resources, and breaks some existing rules and accepted practices, it could also have undesirable or detrimental consequences for the individual (Belschak et al., 2010; Grant & Ashford, 2008). Researchers have therefore begun to explore the "dark side" of proactivity in the workplace. Some empirical studies provide initial support for the existence of boundary conditions for the positive effects of proactive behavior (e.g., Chan, 2006). Unfortunately, the literature in this area has some theoretical shortcomings and so far no overarching theory of these detrimental consequences has been proposed. Furthermore, we have only a limited understanding so far of how individuals might cope with these problems so as to sustain their proactivity. To meet this need, this study aims to broaden the research base on the negative outcomes of proactive behavior by focusing on one such factor, namely fatigue. We also take this step further by investigating whether taking a short break is beneficial in maintaining proactivity.

Based on the self-regulatory resource theory, this study uses two laboratory experiments to examine the influence of proactivity on fatigue, as well as the impact of a break on sustaining proactivity. Fig. 1 presents the research framework. The current study contributes to the literature on proactive behavior in three ways. First, drawing on the theory of self-regulation (e.g., Baumeister, Heatherton, & Tice, 1994), Bindl and Parker (2009) propose a goal-regulatory process model of proactive behavior which depicts how individuals constantly regulate such acts through envisioning, planning, enacting, and reflecting. Such regulatory processes may well consume additional resources and energy. Unfortunately, few studies so far use this perspective to further explore the negative consequences of proactive behavior. Based on this theoretical framework, we propose that proactive behavior, as a type of self-regulating activity, utilizes one's executive function and therefore consumes resources from the common and limited pool available for general self-regulatory activities. Such resource depletion may be tiring (e.g., Cameron, 1973; Wright et al., 2007). We therefore argue that being proactive increases fatigue.

Second, the literature of proactive behavior has yet to investigate possible interventions to encourage individuals to continue being proactive even though demands are being made on their resources. Studies of self-regulatory activities show that there are several possible approaches to replenish depleted resources and enhance executive function, such as viewing scenes of nature, taking a short rest, experiencing positive mood, having a food break, and being given a motivational incentive (Baumeister & Vohs, 2007; Tyler & Burns, 2008). Accordingly, based

on these findings, we propose that taking a break after engaging in proactive behavior will enhance individuals' subsequent levels of proactivity.

Third, other than the work of Grant and Rothbard (2013), almost all existing research on proactive behavior uses a field study approach by collecting data from organizations. In this study, however, we use laboratory experiments to test our hypotheses. In these experiments, we create tasks which enable the proactive behavior of participants to be objectively measured, which may overcome the potential measurement bias of self- or other-rating of proactivity found in questionnaire surveys. In addition, the experiments are likely to provide more rigorous explanations of causality and strengthen the generalizability of our findings.

Theory and Hypotheses

Proactive Behavior and Fatigue

Rather than passively accepting events and reacting to them, being proactive implies mindfully planning, calculating, and acting in anticipation of what might happen in future, which places significant demands on executive function (Grant & Ashford, 2008). For example, an employee might use his/her initiative to question the effectiveness of an existing work procedure, and decide to raise these concerns with a supervisor. He/she may need to carefully prepare for such a meeting by considering the problems with the current procedure, formulating plans for improvement, and deciding on an appropriate time to communicate with the supervisor. Energy and effort are expended in accomplishing such preparation, as well as in the action itself. Given the self-regulatory nature of proactive behavior, it tends to consume resources drawn from the common and finite pool for self-regulation (Baumeister, Bratslavsky, Muraven, & Tice, 1998). Thus, employees who keep performing proactive behavior without replenishing these resources are likely to deplete their pool of energy, resulting in greater fatigue.

The majority of studies of the self-regulatory resource model use experimental methods (e.g. Baumeister & Vohs, 2003; Vohs et al., 2008). Their findings consistently demonstrate that when participants are required to conduct a further, different self-regulatory task after finishing the first one, their performance on the second task is poorer as a result of the reduction in the available resources (for a review, Baumeister & Vohs, 2003). Although these studies do not explicitly examine how the reduction in available resources affects fatigue, they consistently show a relationship between performing one self-regulatory task and impaired performance of a subsequent and unrelated such task. Some studies do suggest a positive relationship between self-regulatory behavior and individual fatigue, drawing upon the theory of self-regulatory resource. From a theoretical perspective, Muraven and Baumeister (2000) propose that self-regulation resembles a muscle that becomes fatigued by exertion and is therefore less able to function as demand continues. Cameron (1973) also suggests that individuals experience fatigue when their mental resources are taxed. Empirically, some experimental studies provide preliminary support for the idea that people engaged in a self-regulatory task tend to be more tired, as well as exhibiting higher levels of some of the physiological indicators of fatigue (such as blood pressure responses and variability in heart rate) (Baumeister et al., 1998; Finkel et al., 2006; Wright et al., 2007).

We should mention that we would not expect a significant increase in fatigue among employees who engage only occasionally in proactive behavior, since they may replenish their resources during the relatively long intervals between these actions. We focus here on the pattern of maintaining proactive behavior without any opportunity for restoring their resources in the interim. We therefore hypothesize:

Hypothesis 1: Performing proactive behavior increases fatigue.

As mentioned above, research confirms that the performance of a subsequent self-regulatory activity will be impaired because of the resource expenditure involved in accomplishing the first task (e.g. Baumeister et al., 1998; Vohs et al., 2008). For example, Vohs et al. (2008) found that effortful decision making, which requires executive function and self-regulation, weakens subsequent self-regulation capacity, as demonstrated by less persistence on unsolvable puzzles and more procrastination in the face of an upcoming examination. Such findings indicate that the resources remaining in the common pool determine individuals' subsequent capacity for engaging in self-regulatory activities. In this context, we speculate that performing proactive behavior may jeopardize individuals' ability to do so again immediately following completion of the first action. Furthermore, maintaining a constant level of proactivity

would not appear to be feasible, since such behavior consumes self-regulatory resources from the common pool. It is thus intriguing to consider how employees can sustain proactivity when their resources are being depleted by continuous proactive behavior. This question has yet to be explored.

Studies of self-regulatory activities and the limited resource model show that after an episode of self-regulation, the negative influence on subsequent self-regulatory capacity is temporary if appropriate interventions are applied (e.g. Danziger, Levav, & Avnaim-Pesso, 2011; Tyler & Burns, 2008). For example, Danziger et al. (2011) found that judges show an increased tendency to rule in favor of the status quo when they make repeated rulings, but this trend can be overcome by taking a break to eat a meal. This implies that a meal break can help replenish mental resources. Tyler and Burns (2008) investigated how individuals replenish their self-regulatory resources after depletion. Depleted participants who were given a short rest or relaxation period performed just as well on subsequent tasks as non-depleted participants. Several other studies examined the effect of glucose, suggesting that consuming, or even rinsing the mouth with, a glucose drink enhances self-regulation ability after participants have completed a self-regulatory task (Gailliot et al., 2007; Molden et al., 2012; Sanders, Shirk, Burgin, & Martin, 2012). This body of literature indicates that taking a break or briefly relaxing in between performing two self-regulatory tasks could replenish individuals' depleted resources, which in turn boosts the ability to self-regulate. Therefore, in line with previous studies, we propose that a break will positively strengthen individuals' subsequent proactive behavior. We accordingly hypothesize:

Hypothesis 2: Taking a break after accomplishing an initial proactive behavior enhances individuals' subsequent proactive behavior.

Experiment 1

Method

Participants and procedure. Undergraduate students from a Hong Kong university were recruited as experimental participants. Fifty-two students (27% male) participated in exchange for a US\$13 coupon. Their average age was 21.2 years.

Our aim in the first experiment was to test whether performing proactive behavior made participants more fatigued (Hypothesis 1). In Experiment 1, participants were required to accomplish a Lego modeling task in which they were given several opportunities to perform proactive behavior. Their fatigue was then measured. To be specific, the participants were firstly asked to complete a questionnaire including measures of positive and negative affectivity and proactive personality. They were then told to build a Lego model with the help of an instruction book. This task was divided into five phases, with the experimenter distributing the pieces for the next phase once the participants had accomplished each one. In the last four phases of the task, we intentionally provided an incorrect piece (the right shape but the wrong color) which they need to use primarily in each phase. Since the participants were required to build the model exactly as shown in the instruction book, the most proactive action to take in this situation would be to ask the experimenter about this problem as soon as they had discovered it. The response time, or the interval between the distribution of the incorrect piece and the participant notifying the experimenter of the error, was recorded as an indicator of proactive behavior. After finishing the Lego model, participants completed another questionnaire including measures of the perceived difficulty of the Lego task and their level of fatigue, as well as basic demographic information such as age and gender.

Measures

Proactive behavior. We used the response time, that is, the time elapsing between the distribution of the incorrect Lego piece and participants notifying the experimenter of the issue, to indicate the level of proactive behavior of the participants. If they did not ask at all, the response time was fixed as the amount of time required for that participant to complete the current phase of the model construction. Each participant therefore had four response times per task, corresponding to the four phases using incorrect bricks. Since the modeling speed of each participant (that is, the total amount of time taken to construct the model) would affect how quick they were to discover the incorrect Lego piece, we used the quotient of the sum of the four response times divided by the total time taken to accomplish the task as a measure of participants' proactivity. As a result, the smaller the quotient, the higher the level of proactivity.

Individual fatigue. Fatigue was measured using a 6-item scale developed by Chalder et al. (1993). Sample items are “I have problems thinking clearly” and “I have problems concentrating” (1 = strongly disagree, 7 = strongly agree; $\alpha = .92$).

Control variables. We controlled for participants’ positive and negative affectivity, proactive personality, and the perceived difficulty of the Lego model as rated by the participants.

Results

Table 1 presents the means, standard deviations, and correlations among the key variables.

We conducted hierarchical regression analyses to examine the relationship between proactive behavior and fatigue (see Table 2). In step 1, we entered the four control variables (that is, proactive personality, positive affectivity, negative affectivity, and perceived difficulty of the Lego task). In step 2, the variable of proactive behavior was also entered. The results show that proactive behavior during the experiment was negatively and significantly related to individual fatigue afterwards ($\beta = -.25, p < .05$). In addition, the change in R^2 after entering the independent variable (that is, proactive behavior) was significant ($\Delta R^2 = .06, p < .05$). Thus, individuals whose response time in the Lego task was shorter (and who therefore had engaged in higher levels of proactive behavior) experienced greater fatigue after accomplishing the task. Hypothesis 1 is therefore supported.

Discussion

Experiment 1 provides evidence of significantly increased fatigue when participants continued performing proactive behavior during the task (Hypothesis 1). It offers preliminary support for the self-regulatory resource perspective of proactive behavior, namely that it is a form of self-regulation and therefore expends self-regulatory resources. More importantly, when individuals engage in proactive behavior without resource renewal, their physical and mental well-being is likely to be impaired. Therefore, in Experiment 2, we created a condition in which participants could replenish their resources in order to examine how this intervention influences their proactivity.

Experiment 2

Method

Participants and procedure. Again, we recruited undergraduate students as participants from a Hong Kong university. Sixty-four (21.9% male) participated, in exchange for a US\$13 coupon. The average age of the participants was 21.1 years.

The goal of Experiment 2 was to examine whether a short break after engaging in proactive behavior could promote subsequent proactivity (Hypothesis 2). Experiment 2 required participants to complete two Lego modeling tasks. Participants in one subgroup were allowed to take a 10-minute break between the two tasks, and those in a control group were not. The conditions were randomly assigned to participants, with 32 participants taking a break and 32 participants not being offered one. Participants were told that the two tasks belonged to two different research projects so that they would not connect the tasks and their performances in each would be independent.

Specifically, the participants were firstly asked to build a Lego model according to the instruction book provided. This task was the same as for Experiment 1. After finishing the first Lego model, participants in the short break group were given a 10-minute break before commencing the second task. Participants assigned to this group were not allowed to communicate with each other or use their cell phones during the break. They were given some water and could listen to some light music in the laboratory, with the intention of helping them relax. After the break, these participants were asked to complete another Lego modeling task. Participants in the control groups did not get a break and were required to commence the second Lego task as soon as they had completed the first one.

In the second Lego task, participants were asked to build the model within five minutes and in strict accordance with the instructions. After the experimenter had distributed the Lego pieces, he/she told the participants that another experimenter who was in charge of the second task would come into the room with the instruction books. In the meantime, the participants were asked to click the “start” button of a countdown timer on the computer, which had been preset to five minutes, to remind them how much time they had to finish the task. However, nobody actually came in to distribute the instructions. Since participants only had five minutes, proactive individuals would be

expected to raise their hands and ask the experimenter about the instruction books. The response time (that is, the time elapsing between participants clicking the start button and inquiring with the experimenter), was recorded as an indicator of proactive behavior. After finishing the second task, participants completed a postexperimental questionnaire including basic information such as gender and age.

Measure of proactive behavior. For the first Lego task, we used the same response time as in Experiment 1 to indicate participants' level of proactive behavior. For the second, we used the response time, i.e. the time elapsing between participants clicking the start button and inquiring with the experimenter about the instruction books. The smaller the response time, the higher the proactivity level of the participant.

Results

T-tests were firstly used to examine the differences between the two experimental conditions in terms of gender, age, and degree major. The results indicated no significant difference between the two conditions (for gender, $t(62) = -.597$, $p = .553$; for age, $t(59) = -.958$, $p = .342$; and for major: $t(59) = 1.245$, $p = .218$). We also examined whether the level of proactive behavior in the first Lego task was different across the two conditions. The t-test showed no significant difference ($t(62) = 1.041$, $p = .302$). Finally, we tested for differences in the response time for the second task between the short break and control conditions. As shown in Fig. 2, response times during the second task were shorter after the 10-minute break ($t(62) = 6.258$, $p = .000$; for break condition, $M = 2.07$ (minute), $SD = 1.37$, for control condition, $M = 4.11$ (minute), $SD = 1.24$). That is to say, the level of proactivity increased under the short break condition. Hypothesis 2 is therefore supported.

Discussion

Experiment 2 further demonstrates that being continuously proactive exhausts individuals' self-regulatory resources. The findings also support our argument that when an opportunity is given to renew these resources, subsequent proactive behavior is enhanced (that is, Hypothesis 2 is supported). In other words, it confirms the positive intervention effect of short break on restoring individual resources and, in turn, sustaining proactivity.

General Discussion

Engaging in proactive behavior has potentially negative effects on individuals' well-being. This study has drawn on the self-regulatory resource theory (Baumeister et al., 1994; Muraven & Baumeister, 2000; Muraven, Tice, & Baumeister, 1998) to propose that the overall relationship between proactive behavior and fatigue is positive, and taking a break is a helpful way for individuals to sustain their proactivity. Our experimental findings support these propositions, showing that participants who had been continuously performing proactive behavior experienced higher levels of fatigue, but that taking a short break after the initial episode of proactive behavior enhanced their proactivity in the subsequent task.

Although the negative implications of proactive behavior have recently begun to receive more academic attention, no overarching theory which explains these consequences has yet been proposed. In this paper, we have approached the question from the perspective of the self-regulatory resource theory, which suggests that proactive behavior, as a form of self-regulatory activity, consumes such resources from a common and finite pool within each individual. Such expenditure could explain why being proactive may have some negative consequences for actors, such as fatigue. Additionally, according to this theory, appropriate interventions could be used to replenish self-regulatory resources, helping individuals to sustain their proactivity. These propositions have been confirmed by our empirical findings. We have therefore shed some light on these theoretical explanations of how proactivity has a negative impact on well-being.

Also on the theoretical front, our study enriches the current exploration of the possible personal costs of behaving proactively by empirically examining fatigue as an outcome. The results correspond to the findings of other studies on self-regulation (e.g. Baumeister & Vohs, 2003; Vohs & Baumeister, 2011; Vohs et al., 2008), which indicate that proactive behavior expends self-regulatory resources which, in turn, may have a negative effect on physical and mental well-being. To date, the literature has provided little detailed understanding of the possible "dark side" of being proactive. Our study confirms that being proactive may be a double-edged sword for individual

employees. While it may benefit their job performance or career, it may also be detrimental to their well-being.

Some people may be unsure whether or not they should engage in proactive behavior at work. Rather than suggesting that employees stop being proactive altogether, we agree that such behavior has a number of benefits and should be generally encouraged. However, performing proactive behavior consistently without the opportunity to restore one's resources, as shown in Experiment 1, leads to greater fatigue. That is to say, too much proactive behavior is likely to deplete individual resources and impair well-being. We therefore highlight the role of resource replenishment in this study, which is discussed further below.

We have investigated how individuals can maintain proactivity in subsequent activities while still fatigued by previous episodes of such behavior. The question of how individuals can cope effectively with the negative effects of being proactive has not been investigated in previous studies. However, this topic deserves some effort from scholars, since it would be helpful for people to understand what kind of interventions they can employ in order to maintain their proactivity. The results of Experiment 2 suggest that having a 10-minute break between two tasks, both of which gave participants the opportunity to be proactive, resulted in increased levels of proactivity in the second task compared with individuals who were not allowed to rest. Our findings are consistent with previous work on the limited resource model of self-regulation, which demonstrates that a short break is an efficient approach to recovering energy and resources and enhancing self-regulatory ability (e.g. Danziger et al., 2011; Sanders et al., 2012; Tyler & Burns, 2008). This study also suggests that facilitating a short break or period of relaxation after performing some kind of proactive behavior is one way in which employees could maintain their proactivity in the workplace. By this means, the negative aspects of proactive behavior could be counteracted, and being consistently proactive would not overburden individuals. Hence, we have demonstrated the positive intervention effect of taking a short break on sustaining proactivity among individuals.

This study also has important practical implications. Given the increasingly crucial role of employees' proactive behavior for both individuals and organizations (for a review, Bindl & Parker, 2010), it is vital to understand the potential negative consequences of this type of behavior. Alongside the existing strand of research into the personal costs of being proactive, our study shows that greater fatigue is one of these costs, since it depletes self-regulatory resources. To date, proactive behavior has been generally regarded as beneficial for organizations, but it is questionable whether it is also advantageous for employees; current evidence appears to be mixed. Unfortunately, however, a reduction in employees' well-being eventually affects organizational performance as well (Harter, Schmidt, & Hayes, 2002; Harter, Schmidt, & Keyes, 2003). Therefore, managers should realize that encouraging employees to be continually proactive is not always appropriate, since the well-being of individual workers and even the organization as a whole may be damaged by too much focus on this area.

Furthermore, based on the findings of Experiment 2, effective measures can be taken to offset these detrimental effects and help employees to maintain their proactivity. On a practical level, organizations can introduce several well-designed short breaks or relaxation periods for employees to replenish their resources during the working day. Such methods would help employees to avoid the double-edged sword of proactive behavior and enable them to continue to engage productively with it. This underscores the importance of resource replenishment in sustaining individual proactivity in the workplace.

References

- [1] Baumeister, R. F., Heatherton, T. F., & Tice, D. M. 1994. *Losing control: How and why people fail at self-regulation*. San Diego, CA, US: Academic Press.
- [2] Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. 1998. Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74(5): 1252-1265.
- [3] Baumeister, R. F. & Vohs, K. D. 2003. Self-regulation and the executive function of the self. In I. M. R. L. J. P. Tangney (Ed.), *Handbook of self and identity*: 180-197. New York: Guilford Press.
- [4] Baumeister, R. F. & Vohs, K. D. 2007. Self-Regulation, ego depletion, and motivation. *Social and Personality Psychology Compass*, 1(1): 115-128.
- [5] Belschak, F. D., Den Hartog, D. N., & Fay, D. 2010. Exploring positive, negative and context-dependent aspects of proactive behaviours at work. *Journal of Occupational and Organizational Psychology*, 83(2): 267-273.
- [6] Bindl, U. & Parker, S. 2009. *Phases of proactivity: How do we actually go the extra mile?* Paper presented at the Proactivity/personal initiative: Untangling the concept. Invited symposium at the European Congress of Work and Organizational Psychology, Santiago de Compostela, Spain.
- [7] Bindl, U. K. & Parker, S. K. 2010. Proactive work behavior: Forward-thinking and change-oriented action in organizations. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology*, Vol. 2: 567-598. Washington, DC: American Psychological Association.
- [8] Cameron, C. 1973. A theory of fatigue. *Ergonomics*, 16(5): 633-648.
- [9] Chalder, T., Berelowitz, G., Pawlikowska, T., Watts, L., Wessely, S., Wright, D., & Wallace, E. 1993. Development of a fatigue scale. *Journal of Psychosomatic Research*, 37(2): 147-153.
- [10] Chan, D. 2006. Interactive effects of situational judgment effectiveness and proactive personality on work perceptions and work outcomes. *Journal of Applied Psychology*, 91: 475-481.
- [11] Danziger, S., Levav, J., & Avnaim-Pesso, L. 2011. Extraneous factors in judicial decisions. *Proceedings of the National Academy of Sciences*, 108(17): 6889-6892.
- [12] Finkel, E. J., Campbell, W. K., Brunell, A. B., Dalton, A. N., Scarbeck, S. J., & Chartrand, T. L. 2006. High-maintenance interaction: inefficient social coordination impairs self-regulation. *Journal of Personality and Social Psychology*, 91(3): 456-475.
- [13] Gailliot, M. T., Baumeister, R. F., DeWall, C. N., Maner, J. K., Plant, E. A., Tice, D. M., Brewer, L. E., & Schmeichel, B. J. 2007. Self-control relies on glucose as a limited energy source: willpower is more than a metaphor. *Journal of Personality and Social Psychology*, 92(2): 325-336.
- [14] Grant, A. M. & Ashford, S. J. 2008. The dynamics of proactivity at work. *Research in Organizational Behavior*, 28: 3-34.
- [15] Grant, A. M. & Rothbard, N. P. 2013. When in doubt, seize the day? Security values, prosocial values, and proactivity under ambiguity. *Journal of Applied Psychology*, 98(5): 810-819.
- [16] Harter, J. K., Schmidt, F. L., & Hayes, T. L. 2002. Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2): 268-279.
- [17] Harter, J. K., Schmidt, F. L., & Keyes, C. L. 2003. Well-being in the workplace and its relationship to business outcomes: A review of the Gallup studies. *Flourishing: Positive psychology and the life well-lived*, 2: 205-224.
- [18] Molden, D. C., Hui, C. M., Scholer, A. A., Meier, B. P., Noreen, E. E., D'Agostino, P. R., & Martin, V. 2012. Motivational versus metabolic effects of carbohydrates on self-control. *Psychological Science*, 23(10): 1137-1144.
- [19] Muraven, M., Tice, D. M., & Baumeister, R. F. 1998. Self-control as a limited resource: Regulatory depletion patterns. *Journal of Personality and Social Psychology*, 74(3): 774-789.
- [20] Muraven, M. & Baumeister, R. F. 2000. Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, 126(2): 247-259.
- [21] Sanders, M. A., Shirk, S. D., Burgin, C. J., & Martin, L. L. 2012. The gargle effect: rinsing the mouth with glucose enhances self-control. *Psychological Science*, 23(12): 1470-1472.

- [22] Tyler, J. M. & Burns, K. C. 2008. After depletion: The replenishment of the self's regulatory resources. *Self and Identity*, 7(3): 305-321.
- [23] Vohs, K. D., Baumeister, R. F., Schmeichel, B. J., Twenge, J. M., Nelson, N. M., & Tice, D. M. 2008. Making choices impairs subsequent self-control: a limited-resource account of decision making, self-regulation, and active initiative. *Journal of Personality and Social Psychology*, 94(5): 883-898.
- [24] Vohs, K. D. & Baumeister, R. F. 2011. *Handbook of self-regulation: Research, theory, and applications*. New York: Guilford Press.
- [25] Wright, R. A., Junious, T. R., Neal, C., Avello, A., Graham, C., Herrmann, L., Junious, S., & Walton, N. 2007. Mental fatigue influence on effort-related cardiovascular response: Difficulty effects and extension across cognitive performance domains. *Motivation and Emotion*, 31(3): 219-231.

Appendix

TABLE 1 MEANS, STANDARD DEVIATIONS, AND CORRELATIONS (EXPERIMENT 1)

Key Variables	Mean	S.D.	1	2	3	4	5
1. Individual fatigue	2.68	1.18	--				
2. Proactive behavior (response time/total building time)	.23	.18	-.40**	--			
3. Proactive personality	5.03	.46	-.28**	.18	--		
4. Positive affectivity	4.73	.54	-.16	.09	.62**	--	
5. Negative affectivity	3.01	1.10	.15	-.25	.024	-.03	--
6. Perceived difficulty of Lego	2.24	1.07	.56**	-.24	-.18	-.32*	.29*

Notes. N = 52. * p < .05, ** p < .01. Two-tailed.

TABLE 2 HIERARCHICAL REGRESSION ANALYSES PREDICTING INDIVIDUAL FATIGUE (EXPERIMENT 1)

		Step 1				Step 2			
		b	SE	β	t	b	SE	β	t
Control variables	Proactive personality	-.37	.20	-.29	-1.85	-.33	.19	-.26	-1.71
	Positive affectivity	.26	.20	.21	1.32	.24	.19	.20	1.27
	Negative affectivity	.03	.16	.02	.19	-.03	.16	-.03	-.22
	Perceived difficulty of Lego	.66	.15	.57	4.33***	.61	.15	.53	4.08***
IV	Proactive behavior					-.37	.18	-.25	-2.07*
		$\Delta R^2 = .06^*$							

Notes. * p < .05, ** p < .01, *** p < .001.

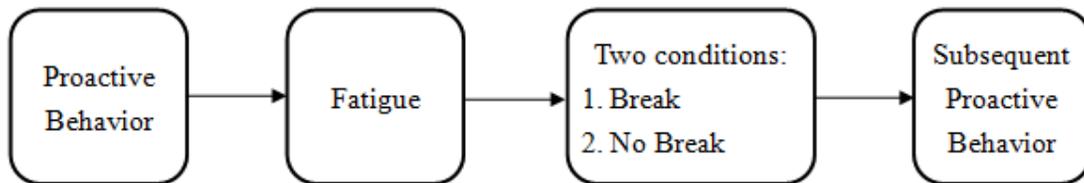


FIG. 1 RESEARCH FRAMEWORK

Notes. Response time is the duration of time between participants beginning the second Lego task and inquiring with the experimenter about the instruction book of the Lego model. The shorter the response time, the higher the level of individual proactive behavior. Break condition (32 participants): participants have a 10-minute break between the two tasks; Control condition (32 participants): participants do not have a break between the two tasks.

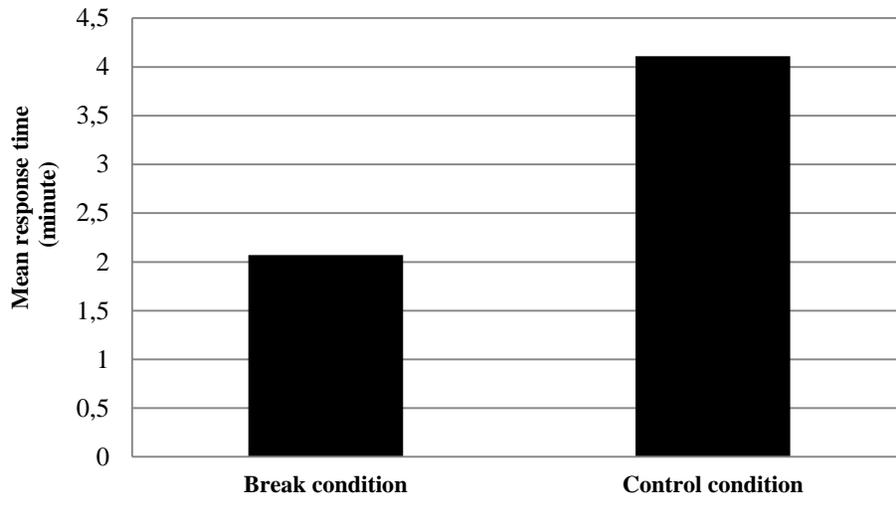


FIG. 2 MEAN RESPONSE TIME OF TWO CONDITIONS IN THE SECOND TASK OF EXPERIMENT 2

**Get Strategic Human Resource Management Really Strategic:
Strategic HRM in Practice**

Jana Fratričová, jana.fratricova@fm.uniba.sk

Ján Rudy, jan.rudy@fm.uniba.sk

Comenius University in Bratislava, Slovak Republic

Get Strategic Human Resource Management Really Strategic: Strategic HRM in Practice

Abstract

There are human resource managers who do not have strategic human resource management in their companies, and they are aware of that. There are human resource managers who do not have strategic human resource management in their companies but they believe they have it. There are human resource managers who have strategic human resource management in their companies, and they are aware of that. But there are no human resource managers who would have strategic human resource management in their organizations, and they are not aware of that. The article is based on the author's empirical research in a large state-owned company.

The word "strategic" is a very frequent adjective that is used today especially in the theory and practice of business management. Unfortunately its meaning is not so clear as we could expect. For example, strategic partner would refer to the partner who is important, strategic resource would have similar meaning but strategic investor usually refers to the solvent investor who is interested in investment, and finally strategic planning refers more or less to the long-term planning. Of course, there are strategic management that refers to what? Five stages of the process? Beside this there are strategic human resource management, strategic marketing, strategic finance, and similar that refer to specific areas of business management. It is clear that there are several meanings of this adjective – such as important, capable, long-term, and probably some other. Which of these are related to human resource management system and its role in the organization? It looks like the adjective strategic has brought a „new jungle“ to the field of management. Because of that a short excursion to strategy, strategic planning, and strategic management would be necessary.

Strategy

What is strategy? There are a wealth of literature sources dealing with the term strategy. There are almost innumerable strategy definitions as well. The term is in frequent use since the early 1960s when strategic planning has become very popular. Later strategic management, and in the 1980s strategic human resource management came into use both in theory and practice of business management. As our perspective is business management we should avoid such "folklore" definitions of strategy as ...the art of war..., movement of troops, and similar because business strategy has nothing to do with armed forces. They have their own strategies. Notoriously known definition of strategy is... "the company's long-term plan for how it will balance its internal strengths and weaknesses with its external opportunities and threats to maintain a competitive advantage (Dessler, 2003). For better understanding of the definition let's take a practical example: You are located somewhere in the Central Europe and have a good reason (the objective) to get to Jerusalem. There are at least two ways to get there. One way is to move northward, the other to move southward. Both ways lead to Jerusalem but one of them is much longer. You choose the most appropriate way. It is your strategy how to get there. Strategy is the way, it is a choice. Because we are in the business area, strategy is the way how the organization will survive in its competitive environment. It is the organization's sustainability plan.

Strategic Planning

Strategic planning in its very beginning in the early 1960s involved managerial decision-making about the long-term goals of an organization. Strategic planning is a process that results in a strategic plan – the organization's long-term goal. Strategic plans have a strong external orientation because they deal with the long-term survival, value, and growth of the organization. Senior executives are responsible for the development and execution of the strategic plan that should include both the effectiveness in term of appropriate output, and efficiency in term of high ratio of outputs to inputs. Strategic planning emphasized top-to-bottom approach to goal setting. This means that senior managers and specialized strategic planning units have got legitimate power to develop objectives for the organization as a whole, and lower-level managers and organizational units did not get the goals or objectives but the tasks. Diversity of former individual

businesses competing in the single industry resulted in the broadening of business competition. Companies were forced to compete in more industries at the same time. Strategic decision makers required more specific information about different industries. In order to get that kind of information specific approach was developed under the name the Growth/Share matrix. This approach is in use till today under the name BCG (Boston Consulting Group) matrix. According to combination of business growth (high or low) and relative competitive position (strong or weak) this matrix consists of the four quadrants with a bit strange nicknames such as Stars, Cash cows, Question Marks, and Dogs. BCG matrix prescribed specific actions for businesses in each of these quadrants.

Strategic Management

As a result of increasing complexity of businesses and globalization trends in the mid 1980s, a new term was introduced into strategic planning process - strategic management. The idea was to involve managers from all parts of the organization in the formulation of strategic goals and strategy implementation. *From this point of view, strategic management is an integration of strategic planning and management into one process.* Classical scientific management is a process of planning, organizing, leading, and controlling. Strategic management is a process that includes the following five components:

- Internal assessment
- Environmental analysis
- Strategy formulation
- Strategy implementation, and
- Strategic control

If strategy is the way how the organization will survive in its competitive environment, it is clear that both the internal and external environment analysis are necessary. The key role in the process of strategic management plays the *SWOT analysis*. The acronym stands for strengths, weaknesses, opportunities, and threats. First two mentioned are related to analysis of internal environment, and the last two deal with external environment analysis. Beardwell, J. and Clayton, T. (Beardwell, Clayton, 2010) identified four approaches to strategy-making. These are the classical or rational-planning approach, the evolutionary approach, the processual approach, and finally the systemic approach. The fourth component of strategic management process – the strategy implementation - are the arrangements necessary to get strategy into practice. Process ends with strategic control which in reality means the feed-back information for decision-makers. Now, after a short excursion to strategy and strategic management we shall focus our attention on the issue of strategic human resource management.

Strategic Human Resource Management

Strategic human resource (management) is relatively new term both in theory and practice. First introduced in the mid 1980s it represents the present stage of human resource management evolution. The previous stages of human resource management evolution include *Purchasing* - focused on hiring and firing at best costs, *Labor Relations* – negotiating with unions representing company employees, negotiating talent for least costs, *Personnel* – focused on administering employee issues such as benefits, compensation, and employee relations, tends to have a strong emphasis on control, and *Human Resource* – represents primarily a name change with little substantive difference, regardless of the implication of a move toward being more strategic. According to Christensen, R. (Christensen, 2006), the strategic human resource role is managing organization and employee performance. Dessler (Dessler, 2003) believes that strategic human resource management is the linking of human resource management with strategic goals and objectives in order to improve business performance and develop organizational cultures that foster innovation and flexibility. In literature there are more approaches to strategic human resource management, For example, Beardwell (Beardwell, Clayton, 2010) describes best fit (or contingency) school, the resource-based view of strategic human resource management, and best practice approach. Under these approaches there are several models of strategic human resource management. For example contingency approach includes lifecycle model, competitive advantage model, and configurational model. Best practice

approach describes the high commitment models. Because of the aim of this article – to get strategic human resource management really strategic – detailed description of these approaches and models are not necessary. Besides this, theoretical models are necessary but strategic human resource management is also or most of all managerial responsibility in real business companies. Variety of theoretical approaches to strategic human resource management brings a kind of confusion over the differentiation between human resource management and strategic human resource management. As a result of that, the term „old wine in new bottles“ becomes popular between managers.

Empirical Research Results

Questionnaire comparative empirical research was conducted in two large companies. One of them – company A - is a state-owned company, and the other – company B - a private company. Each of the companies has over two thousand employees. Total number of managers involved in research:

Company A - 52 managers, 9 of that number are top managers (71,15 % questionnaire return ratio).

Company B – 31 managers, 6 of that number are top managers (77,41 % questionnaire return ratio).

There are both the line and staff managers involved in the research sample - including human resource managers.

Managers were asked to answer the questions focused on issues as follows:

- Is there strategy in (your) company?
- If yes, are the human resource managers and units involved in its structure?
- Are the human resource management specialists involved in strategy formulation or they get just the tasks to fulfil?
- Is the human resource management system role in your organization traditional or that of strategic partner of top management?
- Is traditional role of human resource really changing or it is just the „old wine in new bottles“?

There are a variety of answers that could be – and were - evaluated by such criteria like the particular company, management level, line and staff aspects, and similar. The most important conclusions related to strategic human resource management are the following:

- Almost 40% of top managers in the company B were not quite sure if there is any kind of strategy in their organization.
- According to some answers „strategy is about 80 page booklet that could be found in the general director’s office“.
- Great majority of managers including top managers believe that strategic human resource management means fulfilling the tasks the human resource managers have got from the company strategy.
- Human resource managers and specialists are not involved in strategy formulation.
- Majority of managers believe that human resource management activities are not exclusively only human resource manager’s responsibility.

As both companies are successful in their particular field of operation, it is clear that managers in both companies take strategic management more or less as a formal issue that is not directly related to the company success on the market. Situation in the practice could differ from the case of mentioned companies but still the results show how strategic human resource management in practice and specific theoretical models of strategic human resource management could be far from each other. If the company is successful on the market, is there strategic human resource management approach necessary? The answer „no“ would be politically incorrect, and managers are aware of that.

Why Strategic Human Resource Management

Strategic human resource management are present activities to get future results. Strategic human resource management is necessary today because the company is interested in the future results. Strategic management is about differentiation and competitive advantage. There are several ways to get competitive advantage. For example, technology, price, quality of products, and similar. Most of mentioned are quite easy imitable which means it is not long-lasting competitive advantage. Exception could be competitive advantage through people – human resource. Managers should be aware of the fact that competitive advantage through people is a process. It is not a simple result of hiring of appropriate people. It is a process of employee development. Why this competitive advantage is difficult

to immitate? The answer is simple – because the most important attribute of human resource as a competitive advantage is flexibility. It means the ability and readiness of people to meet not only today’s but also tomorrow’s high performance expectations. Not each human resource is the company competitive advantage. Competitive advantage through people is a result of human resource development process. Competitive advantage through people would be one of the results or an attribute of strategic human resource management. What are the others? Former idea of strategic management is the involvement of all managers in formulation and accomplishment of the company long-term objectives. Human resource managers are not or are not supposed to be an axception. Because of that, human resource specialists should be involved in all stages of strategic management process starting with internal environment analysis and ending with strategic control.

Get Human Resource Management Strategic

Wealth of literature describes strategic human resource management from different point of view. For example, some authors believe that human resource scivities are not, and never will be strategic because they are strictly operational (Dessler, 2003). Second group of authors believe that strategic role of human resource is to fit the company’s strategy. Finally, there are authors who describe strategic role of human resource in terms like strategic partner of top management, vertical inregration of activities, and similar. Of course there always will be advocates of each of these views but there are two issues that we should take into account:

- Strategic management is about the company’s competitiveness, and competitiveness directly depends on the company’s employees.
- Beside finance, marketing and operations, human resource management is an integral part or sub-system of the company management system.

If competitiveness depends on the company employees, and competitiveness at the same time is the key strategic issue – could human resorce be strictly operational issue? Probably not. Four sub-systems of the company management system are not independent entities (Rudy, at al., 2013). In correlation with each other they represent a kind of „ambrella“ over the company. If there is strategic management in the company - there should be strategic management of each its integral part. Based on these assumptions it could be said that the strategic human resource management role in the company is twofold:

- Equal partner in the process of strategic management.
- Build up the competitive advantage through people.

Become equal partner in the process of strategic management means to take part in all stages of the process of strategic management. At the same time it does not mean just to get invitation and be accepted at the business table. There is a general agreement both in theory and practice that human resource activities are not exclusive responsibility of human resource specialists and managers (Rudy, Rudyová,2008). Line managers should be involved in human resource activities as well. For example, compensation system design is a typical human resource specialists responsibility. But compensation of each individual worker according to compensation system is a line manager’s responsibility. In order to be an equal partner in strategic management process we should look also for greater involvement of human resource specialists in the company business activities. Human resource managers and specialists should understand business, value the company provides for customers, customers, technology, industry, competitors, and similar. That is what makes equal partner in the process of strategic management. Human resource is invited to the table not because they are experts in strategy formulation or because they are experts in human resource. They are invited because they are experts in human resource who understand business the company is involved in. Knowing the business and human resource expertise is the expected contribution of human resource specialists as the company stregetic decision-makers.

Build the company’s competitive advantage through people is the second of twofold role of strategic human resource management. If the classical role of personnel management was to get appropriate number of people, the strategic human resource management role is the development of people to get competitive advantage through people. A competitive advantage is an advantage over competitors gained by offering consumers greater value. It is the ability of the company to offer such added value to its product that competitors cannot. It is a set of capabilities or resources

giving an organization an advantage that leads to the company's higher performance compare to competitors. It is a question of differentiation from competitors. There are several ways to get competitive advantage. For example, price, greater benefits and services for customer, technology, quality of the products, but also the company's human resource.

Search for competitive advantage is one of the core activities of strategic management. The most complicated issue in searching of competitive advantage is its sustainability. For example, a company in an automotive industry introduced ABS system (from German Antilockbraking system) in its cars. Because of increased safety of cars with ABS system, the company gets competitive advantage through technology. But after a short period of time almost all companies in automotive industries followed the same way. The result – competitive advantage through technology is lost. It happens because competitive advantage through technology is usually easily imitable. The challenge for the company's strategy is to find a way of achieving a sustainable competitive advantage. That means the competitive advantage that cannot be easily imitable. Human resource is probably the only way to get relatively sustainable competitive advantage. It is so because factors that differentiate work force are focused on individuals. And there are no two identical individuals in the Universe. For example, organizational performance depends on the skills of employees, their motivation, and organizational support. Changing environment requires flexibility in all these three aspects. Getting competitive advantage through people as a second of the twofold role of strategic human resource management means the system of employee development focused on flexibility of workforce skills, its motivation and organizational support. This could be very difficult to imitate simply because of the company organizational culture.

References

- [1] Beardwell, J. and Claydon, T. (2010) Human Resource Management a Contemporary Approach, 6th edn. Pearson.
- [2] Christensen, R. (2006) Roadmap to Strategic HR, AMACOM,
- [3] Dessler, G. (2003) Human Resource Management, 9th edn. Pearson
- [4] Rudy, J., et al. (2013), Management and Organizational Behavior, MV- Wissenschaft, Münster.
- [5] Rudy, J. and Rudyová, J. (2008) Human Resource management in Japan, VHK Altdorf.

**The Multiple Attributes of Professional Workers in Engineering Consulting and
Design Services Firms**

*Gabriel Sorin STROE, sorin.stroe@uzineng.ro
UZINSIDER ENGINEERING S.A. Galati (Romania)
University "Politehnica" of Bucharest (Romania)*

The Multiple Attributes of Professional Workers in Engineering Consulting and Design Services Firms

Abstract

Engineering Consulting and Design Services Firms (ECDSFs), as Professional Services Firms (PSFs), are organizations using the specialist knowledge of their professional employees to deliver expert services to their customers. In the case of companies from engineering consulting and design services industry the employees, namely the professional engineers, exhibit multiple strategic attributes: they may be seen as critical, or strategic assets, internal suppliers, strengths and threats. The key challenges facing engineering consulting and design services firms are to better manage knowledge and to extend the knowledge management to encompass all members of the extended enterprise, meaning both the organization itself and its customers. The purpose of this paper is to present a general overview of the engineering consulting and design industry, the distinctive, employees-related characteristics of the engineering consulting and design services firms, also analyze the different attributes of the professional employees within these firms.

Introduction

Strategic management models and concepts have been evolving in the manufacturing or traditional services field on a continuous basis since the mid twentieth century but the overwhelming majority of works in this field gives the impression that all the models and concepts are generally, fully, and identically applicable to all industries, in particular to professional services industry - the engineering consulting and design services belong to - despite its distinctive characteristics (Scott, 1998; Sheehan, 2005; Malhotra & Morris, 2009; von Nordenflycht, 2010; Gand, 2010). But, although classic models and concepts may provide some strategic insights, managers of engineering services firms run the risk of applying misleading advice.

Within the professional services firms sector, Engineering Consulting and Design Services Firms (ECDSFs) are among the least studied entities (Rimmer, 1991; Boxall & Steeneveld, 1999; Kreitl *et al.*, 2002; Ou & Chai, 2007; Kaiser & Ringlstetter, 2011) as far as their business management is concerned. Moreover, the strategic researchers have paid little attention to the competitive environment of these firms and their behaviour determined by the actions of the competitive forces.

The ECDSFs, among others of the same knowledge-based and professional type, are worthy of attention since they played and are still playing an important role in the economic growth of countries in the world today (Kaiser & Ringlstetter, 2011), and it is assumed they will be playing a major role in the new „knowledge economy”. They are considered to be one of the hallmarks of the knowledge-based economy (Bagdoniene *et al.*, 2007; Aslesen & Isaksen, 2007; Smedlund & Toivonen, 2007; Bolisani & Scarso, 2013). That they have been unnoticed so far, is probably because their work is invisible for the general public, it is a very heterogeneous sector because they operate in a variety of fields, they are obscure, small and hidden in statistics as services or, in the best case, as professional services firms in general.

The analysis in this paper is supported by the literature from Professional Services Firms (PSFs) field and a combination of the two major approaches in strategic management – Market-Based View and Resource-Based View –, by the extant literature on strategic analysis, also draws from author's own practicing experience of more than 20 years in the consulting and engineering design industry, both as a design engineer also as a general manager of an engineering company.

The present paper is qualitative and descriptive in nature, starting with a general overview on the engineering consulting and design services industry, on the specific characteristics of professional engineering consulting and design services firms, then analyzing different attributes of the professional employees within ECDSFs. The paper ends up with a set of conclusions and managerial implications, also with a set of proposed directions for further research on the industry. The paper aims at contributing to collective knowledge of employees' strategic management in these special companies.

Engineering consulting and design services industry – a general overview

Engineering consulting and design services, as highly specialized activities, represent a key knowledge-intensive professional services sector that emerged during a later phase of global industrial development when a need for innovative solutions and improved design for construction projects, plants layout and technologies became evident. It has been seen as the key factor in the generation and definition of new technologies in advanced industrial economies, also as a key, risk-reduction factor in undertaking technology transfer from developed to developing economies.

Engineering consulting and design services include a wide range of activities, essentially intellectual, which are combined to optimize investment decisions in terms of choice, design and project management and implementation. The markets for engineering consulting and design services are therefore primarily related to the growth of industries (metals, mining, power, oil & gas, heavy machinery, cement, pulp and paper, chemical, etc.) and construction sector, and businesses in this industry tend to fluctuate with the cycles of growth and stagnation in manufacturing and production in major markets. Demand of consulting and engineering design services is regularly characterized by uncertainty, unpredictability, severe fluctuations, stagnation, or even discontinuity over time, depending on the economic cycles and investment policies of the potential customers.

Engineering consulting and design services are generally defined as highly specialized activities of intellectual nature, which identify, select, organize and apply technical/technological engineering knowledge and even create knowledge for purposes of investments and production of client firms. The outputs of these services do not feed the final consumption in an economy but represent inputs for other activities and processes of their client firms. Since these services are inputs in the value creation processes of other firms, they also have an indirect effect on the quality and efficiency of these firms' outputs (Löwendahl, 2005). They are characterized by certain methods/methodologies of work and often by a multidisciplinary approach (engineering, architecture, economics, finance, project management, ecology). The activities of engineering companies are intangible and "intellectual" to the extent that they involve skilled labour in terms of consulting, design and evaluation. The ECDSFs may provide any or all of a number of services, from consultancy to engineering, and these services can be categorized according to the stage of a project for which the services are provided. As such, there are services related to formulation of the project, research operations which explore various technologies available for a specific operation resulting in the choice of product design and technology to be used, project evaluation, basic and detailed engineering and design, procurement of plant components, preparation of bid and contract documents, supervision of fabrication and construction, commissioning, testing and start-up of a new plant, training of personnel, services related to the operation and maintenance of an industrial facility.

The ECDSFs are normally active and operate in the following sectors (Stroe, 2013):

- Civil (roads, bridges, railways, tunnels, airports, dams, harbours, docks, social utility buildings, water supply & treatment plants, sewerage systems, irrigation systems, land planning and architecture, commercial buildings, communication systems, hydrology, geology, etc.)
- Industrial (metals, mining, power, heavy machinery, ship building, aircraft, oil & gas, cement, glass, chemical, pulp & paper, nuclear, manufacturing facilities, power transmission & distribution plants, etc.)
- Military (guns, ammunition, defence systems, special machines and communication systems, etc.)
- Environmental (environment protection systems and plants, waste disposal and recycling, management and use of natural resources, etc.)

Engineering consulting services are particularly defined as activities involved in the identification and organization of technological knowledge, relating its possibilities and uses to the context of physical, technological, economic, social, and environmental requirements. Depending on the stage of a project for which the services are provided, consulting services can be grouped into three categories:

- Pre-investment consulting services, rendered before the materialization of an investment, in order to identify, prepare and evaluate projects and select the appropriate technologies. These services are provided (typically for industrial projects) before the actual start of engineering design and fabrication and comprise techno-economic,

pre-feasibility, project feasibility and evaluation studies (including market, location, technological, economic, commercial, financial and environmental aspects), preparation of terms of reference and invitations for tender;

- Project implementation consulting services, rendered during the execution of the project. These services comprise project engineering (choice of appropriate technology and equipment, engineering surveys, drawings, plans, diagrams, bills of materials, specifications, tendering, bids evaluation and contracting, negotiation of financial, commercial, know-how agreements, information systems), supervision of project execution (procurement, fabrication, construction, erection, installation), and commissioning and start-up (including personnel training);
- Consulting services for management and production, rendered during the operation stage of an investment which has already been materialized. These services comprise technical assistance and troubleshooting during operation/production, production planning and control, cost control and optimization, product design and development, process improvement, quality control and maintenance systems, sales and inventory systems, expansion programmes, personnel training, management information and control systems, etc.

Engineering design services, rendered mainly during the project implementation stage (project engineering), are particularly defined as activities involved in the application of knowledge in order to develop data, diagrams, drawings, models, simulation and calculation reports, product specifications, materials and fabrication specifications, wear and tear parts specifications, painting, packing, labeling, and transport specifications, procurement specifications for special plant components and equipment, risk analysis reports, instructions for assembly, erection, installation, commissioning, start-up, operation, maintenance, with the purpose of implementing physical facilities for economic activities, and of optimizing and maintaining the existing facilities.

As ECDSFs belong to the PSFs category which on its turn is a sub-group of the Knowledge-Intensive Firms (KIFs) or Know-How Companies group, the mutual characteristics of these types of companies relevant for the present analysis are (Løwendahl, 2005; Alvesson, 1995, 2004; Scott, 1998; Kaiser & Ringlstetter, 2011):

- Their services are highly knowledge-intensive, delivered by people with higher education, and frequently closely linked to scientific knowledge development within the relevant area of expertise.
- Their services generally involve a high degree of customization in order to comply with the clients' unique problems, although some solutions can be standardized and used to different clients.
- Their services involve a high degree of discretionary effort and personal judgment by the experts delivering the services.
- Their services require substantial interaction with the client firm's staff. For the ECDSFs, the interaction with the client is most intense in the early definition stages, whereas after the project proposal has been accepted, the design process takes place largely within the ECDSFs.
- Their services are delivered within the constraints of professional norms of conduct.
- Selling professional services to potential clients is very different from the mass-marketing of consumer goods or services, as it involves both interaction with the client and a high degree of uncertainty in terms of what is actually going to be delivered.

The business of ECDSFs consists in creative, complex, and customized problem-solving activities for their customers. If the industrial production companies create value within a „value supply chain”, the ECDSFs create value by solving their clients' problems through the application of knowledge within a „value shop”. A value shop is an organization that creates value by solving the unique problems of its customers and not by producing physical outputs starting from physical inputs (Thompson, 1967; Stabell & Fjeldstad, 1998). A value shop sells its own competences and the customers buy solutions to their unique problems (Fjeldstad & Haanaes, 2001). The five generic categories of primary value shop activities are problem finding & acquisition, problem solving, choice, execution, and control and evaluation (Stabell & Fjeldstad, 1998). Rather than being embodied in the process or product, knowledge resides in experts and its application is customized based on clients' needs (Sheehan, 2005). The activities in these firms are performed by highly qualified professionals and the outcomes are provided by the mental efforts of the professional employees. Whereas nowadays knowledge plays a role in all firms, its role is distinctive in engineering consulting and design services firms. For ECDSFs both their inputs and outputs are intangible. For professional workers (engineers, designers, experts) knowledge is simultaneously an input, medium and output of their work (Newell *et al.*, 2002) and is characterized by a high degree of intangibility. Even though for ECDSFs the outputs are

in form of written studies, drawings, plans, specifications, calculation reports, instructions, which are tangible, storable and reusable, the intangibility of outputs refers in this case to the lack of customers' capability to physically feel and assess the outputs because of the lack of specialized knowledge and information. ECDSFs primarily create value through processes that require them to know more than their clients, either in terms of expertise or in terms of experience in similar problem-solving situations.

As stated previously, both the inputs and outputs of PSFs in general and ECDSFs in particular consist in knowledge. In case of ECDSFs the output knowledge is delivered to customers embedded in form of feasibility studies, planning studies, technological solutions, technical specifications, conceptual/preliminary/detail designs, workshop drawings, plans, calculations reports, diagrams, erection and installation drawings and instructions, operation and maintenance instructions, etc. The knowledge-intensivity and general nature of ECDSFs mean that the only real and significant inputs for the value creation in ECDSFs are the education, knowledge, qualifications, experience, expertise, skills, and capabilities of the professional engineers and designers that perform the engineering services by identifying, selecting, organizing, applying, and delivering the knowledge to the customers.

The key strategic resource of ECDSFs, or critical asset, is the human capital who holds and owns knowledge, competences, know-how, capabilities, skills, expertise and experience. The ECDSFs build their strengths through their highly qualified engineers and designers. The number of highly qualified professional employees (professional engineers, designers, technical experts) doing knowledge-based engineering work out of the total number of employees usually amounts to 80 – 85% for large-sized firms and 95 – 97% for medium and small-sized firms. Personnel costs represent about 65 – 70% of all costs of the company due to professionals hiring. The human beings in ECDSFs are the equivalent of machines and equipment in the production companies and recruitment of highly qualified and experienced engineers and designers is the counterpart of investment in new machines and equipment in a manufacturing company (Sveiby & Lloyd, 1987). The difference is in the availability of highly qualified workforce in the labour market as compared to availability of machines and equipment in the product market. Moreover, it is not enough to be available on the labour market, they have to be suitable for specific jobs, and then the company has to be able to attract them. Once the professional engineers have been employed, they are not like machines and cannot be allocated to a project unless they themselves see that project as the most interesting option available to them at that moment and appropriate for their expertise. Education and motivation of the professional engineers in ECDSFs is, simply said, the equivalent of what maintenance is for the existing machines and equipment in the manufacturing companies. Know-how on their "invisible" balance sheet is the equivalent of fixed assets are on the traditional balance sheet of industrial production firms (Sveiby & Lloyd, 1987).

In current times the services that the ECDSFs aim to deliver are increasingly coming under pressure because of a continually changing environment. Because of the technological developments, globalization and changing roles of competitors, blurred identity of the industry, commoditisation of design, loss of specialism, scarcity of professional workforce and the „war" for staffing with engineering knowledgeable people, and shifting patterns of customers' demand, the ECDSFs need to take notice of these changes and seek out viable strategies through which they are able to continue their endeavours to drive innovation and economic growth thus fulfilling their mission and the critical role that they play within the national context.

The strategic attributes of professional employees within ECDSFs

The most important issue challenging the engineering consulting and design services firms is the supply of knowledge and know-how required for their production processes, also the use of expertise, experience, and capabilities. The core of the resource base of the ECDSFs resides in the professional engineers employed and their ability to solve whatever problems the clients may want them to solve. The professionals bring to the firm their expertise, their experience, their skills in relationship building and maintenance, their professional reputation, their network of professional peer contacts, also their established relationships with past, present, and potential clients. This means professional employees may be seen as „suppliers" of knowledge, expertise, and experience to the ECDSFs. These „strategic resources" are critical to the survival and success of the firm, thus being a „strength" of the firm, but they are to a very large extent owned and controlled by the individuals rather than by the firm itself,

thus becoming a potential „threat” for the firm. In this case, the professional workers may be considered both a „strength” and a „threat” for the firm that employs them. Therefore, they have multiple attributes, namely „strategic assets”, „strength”, „internal suppliers”, and „threat” simultaneously, even though they are parts of the firm and not of firm’s external environment (Fig. 1).

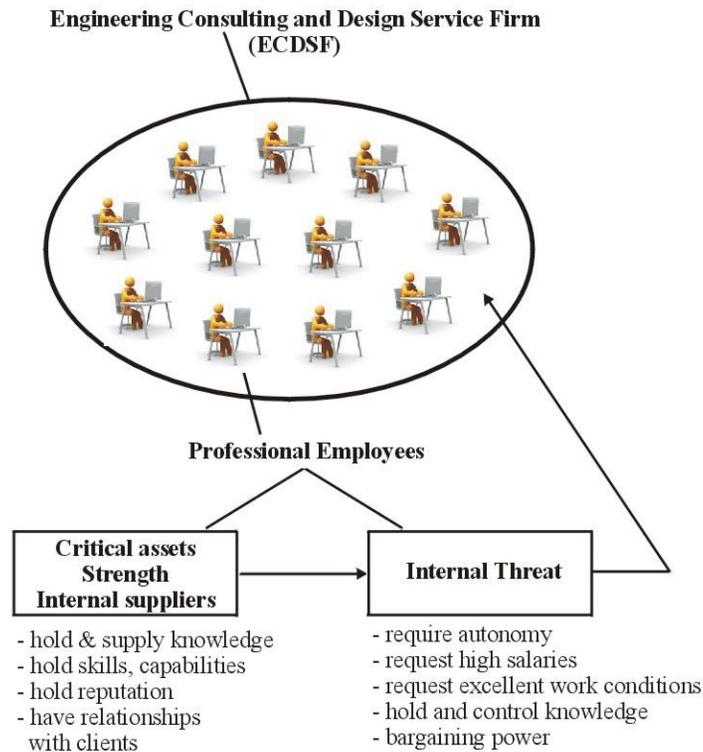


FIG. 1: THE ATTRIBUTES OF PROFESSIONAL EMPLOYEES IN AN ECDSF

In the case of ECDSFs one cannot speak of suppliers *per se*, as ECDSFs cannot purchase on a regular basis the essential inputs required for the production of their services. They mostly require highly qualified and experienced engineers and access to knowledge.

According to Porter, “... if strategy is stretched to include employees and organisational arrangements, it becomes virtually everything a company does or consist of. Not only does this complicate matters, but it obscures the chain of causality that runs from competitive environment to position to activates to employee skills and organisation.” (Porter, 1997:162-163).

As the most important resource of any organization is its human capital, the major and most valuable asset of any ECDSF is the highly trained and qualified professional workers (engineers, designers, technical experts) in the fields of engineering in which the company is active. They are called „critical assets” or „strategic assets” (Løwendahl, 2005). Such companies have all their value creation materialized through the mental efforts of their professionals during the process of organizing, applying, and delivering the knowledge to the customers.

It is argued that perhaps more than anything else, professional services firms in general and consulting and engineering design services firms in particular stand out from most other companies because of the extreme significance they place on the quality and motivation of their personnel (Alvesson, 1995; 2004). As Boxall and Steeneveld posit, „unless one thinks that neutron bombing will make no difference to business activity, the proposition

that the quality of human resource management critically affects firm performance is self-evident truth.” (Boxall & Steeneveld, 1999:443).

As Maister argues, PSFs in general – and ECDSFs in particular as a subgroup of PSFs – compete in two markets simultaneously: the “output market” for its services and the “input market” for attracting, motivating, and keeping its productive resources - the professional workforce (Maister, 1982; 1993). These two markets are closely related: loss in the latter may seriously affect the former. That is why it is of paramount importance for an ECDSF to optimally position itself both on the “output market” and “input market” between which there is a close relationship. The two primary processes in ECDSFs are recruiting and keeping the best professionals and winning the most interesting clients and projects. The two processes are not independent. If an ECDSF has the best experts in the world, it has a very strong position vis à vis competitors and is likely to win challenging projects. On the other hand, if an ECDSF is able to win the most interesting, challenging and rewarding contracts, it is then easy to attract the best professionals and if the probability of winning new interesting projects seems high, the professionals will remain with the firm. In case of ECDSFs the inflow and retention of qualified personnel is crucial (Fig. 2).

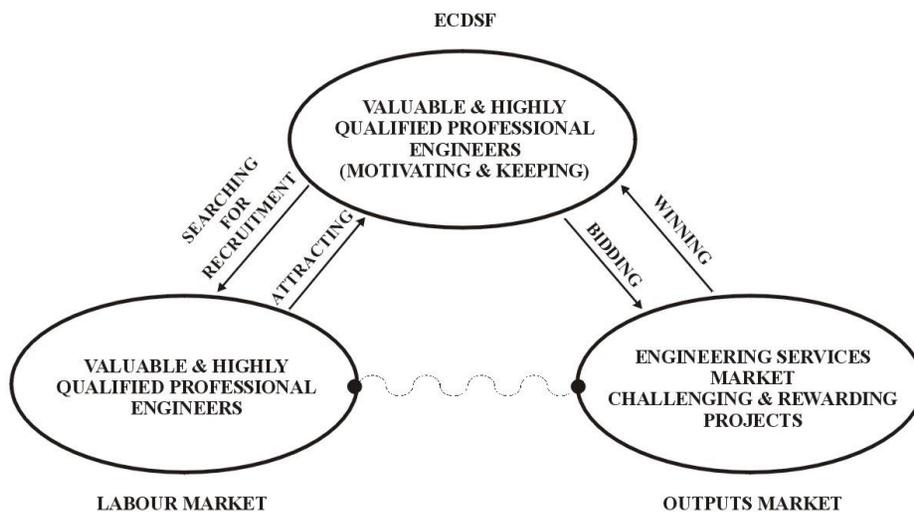


FIG. 2: INTERDEPENDENCY OF THE PRIMARY PROCESSES IN AN ECDSF

Drucker (cited in Kreiner & Mouritsen, 2003:233) emphasizes the dependence of organizations on personnel, and the strong bargaining position of large groups of knowledge workers and says that: “In knowledge work, the means of production is now owned by the knowledge workers. They are mobile and can work anywhere. They keep their résumés in their bottom drawer. Consequently, they must be managed as volunteers, not as employees. Only the unskilled need the employer more than the employer needs them”.

The highly qualified and skilled engineers and designers are the ones who enjoy the privilege of being the most powerful „suppliers” (of knowledge, expertise, experience, capabilities) to ECDSFs when the economy is booming or there is a high demand for their expertise in a certain engineering field the ECDSFs do not have in-house. In the same time, the professionals represent a „threat” to ECDSFs posing a financial risk on the firms because of their requests for higher compensation packages and work conditions. On the other hand, during economic slowdown, the bargaining power of employees and potential employees is very low. This is because the demand for their services reduces as the ECDSFs are facing difficulties in obtaining projects or are having few projects to handle with, thus not being able to fill the entire working capacity.

Thus, looking at what Porter refers to as the bargaining power of suppliers becomes a matter of the distribution of power between the ECDSF and the professional engineers they aim to attract, motivate and retain (Lorsch & Tierney, 2002). Mintzberg (1983) argues that in PSFs, the traditional top-down management approach is

difficult to implement. Professionals' striving for autonomy and the power they hold, as being the most valuable asset of the firm (Løwendahl, 2005), make it difficult for management to expect these professionals to do projects against their will. As indicated previously, the bargaining power of employees (engineers, designers) is significant as they essentially constitute the major asset base of the company, possessing a high degree of knowledge and informational power, also enjoying a high mobility. They can exert a high bargaining power, and thus a high financial risk for the firm, by demanding for better compensations and rewards which, if not granted, essentially determines the engineers to quit the company, with almost no loss of capabilities, and join a competitor ECDSF. This is because the biggest portion of costs is with professional staff's salaries and compensations. Or, some of the actual engineers and designers may leave the company and start their own business which will become a significant competitor for the "quitted company" because the employees leave together with their knowledge, expertise, reputation, and sometimes with a significant part of clients portfolio.

Although management is critical to ECDSFs success, the paradoxical fact is that professionals generally exhibit a high degree of autonomy. The fundamental reason for this lies in the reversed power structure of professional services firms, as the control over the most critical resources for value creation resides with the professionals rather than with owners of firm equity (Løwendahl, 2005).

This challenge might in fact be the most serious one an ECDSF may face with, as the attraction, motivation and retention of highly qualified, skilled, and experienced engineers determines the reputation of the company and quality of services that the company can provide. Therefore, an ECDSF must provide very good working conditions, attractive compensation packages and also challenging projects in order to attract and keep outstanding engineers because the „engineers are typically loyal to projects rather than to firms” (Løwendahl, 2005), and they primarily seek interesting and challenging projects.

One of the most fundamental strategic management challenges involves the management of competences and other intangible resources which are only partially controlled by the firm (Løwendahl, 2005). To the extent that the firm is highly dependent on competence and knowledge resources that are controlled by the professionals, the organization is highly vulnerable to the exit of these professionals. This is in line with the concern of Henry Michel, former CEO of engineering company Parsons Brinckerhoff, that “many people say that all our resources go down the lift in the evening after a day of work, and that the firm is then empty. That is why I see it as my primary concern to make sure that they want to come back tomorrow.” (Løwendahl, 2005:26). There is a strong reliance of engineering firms on their human resources, often on named individuals who are part of a built reputation of the respective firms (Fenton & Pettigrew, 2000). Departure of their key professional workers is the same as disinvestment in a manufacturing company (Sveiby & Lloyd, 1987). The most important threats are the groups of experienced employees leaving the company and establishing their own engineering services business. In this situation the managerial challenge to be addressed is to successfully motivate and retain the highly qualified and experienced engineers thus preventing them from leaving the company and becoming competitors. This requires carefully developed and successfully implemented human resources strategies within the company.

As to the generic strategies the ECDSFs can adopt, the general position is that they cannot follow cost leadership strategy because this is not a viable one. Since the greatest portion of an ECDSF's costs are personnel costs (compensation packages), if an ECDSF tries to reduce its staff or its wage bill, its quality of services will immediately fall and with it, clients will start defecting. Regarding the differentiation strategy, one can say that it is difficult for an ECDSF to sustain a differentiation strategy in a segment which is slipping in a cost-based competition, unless it is a local niche or specialist player. Differentiation in the world of ECDSFs does not simply mean having unique products. The products or methods and frameworks of ECDSFs are not particularly defensible. After a while, if they are successful, they will quickly be copied. Instead, differentiation means the quality of the intellectual capital, of the professional engineers of the firm embodied in its brand reputation. Another point of view for differentiation refers to the quality of relationships with the clients.

To conclude with, it is stated that while being the „critical, strategic assets” fostering the „strengths” of the firm, the most important „suppliers” for an engineering consulting and design company are the existing professional employees. In the same time, because of their bargaining power and vital dependency of the ECDSF on them, they may be seen also as a serious „threat” for the success or even survival of the firm.

Discussions and managerial implications

The managers of engineering consulting and design services firms rarely imagine the challenges that await them. Of course, projects schedules are tighter, products are getting more complex, quality and performance requirements are becoming higher, and budgets are shrinking. But these are all simply constraints and engineers are used to dealing with constraints. Strangely enough, the biggest challenges for the managers of ECDSFs today are not of technical but non-technical nature, which are often the stickiest. They need to take actions and pursue initiatives that will keep the engineering companies productive and competitive on the market.

It is concluded that the most important issue today for an engineering consulting and design firm is the suppliers of knowledge which are the highly specialized professional engineers and designers employed by the company or the professional engineers available or potentially available on the labour market. The most fundamental strategic management challenge involves the management of competences and other intangible resources, which are only partially controlled by the firm. The ECDSFs have to pay as much attention to maintaining and renewing its professional workforce as it does to winning new clients.

On the other hand, the professionals of the firm are simultaneously both „strength” of the firm generated by the quality of professionals who hold knowledge, skills and capabilities, and „threat” for the firm because of their bargaining power, vital dependency of the ECDSF on them as „suppliers”, autonomy and mobility.

Conclusions and directions for further research

The conducted theoretical analysis of suppliers in engineering consulting and design industry shows that ECDSFs in general are being faced with a number of challenges with strategical and managerial implications generated by the suppliers’ power and threat. The most critical seem to be the challenges arising from the input dependency the ECDSFs face with, i.e. the fact that the quality of the services rendered is directly affected by the professional engineers and designers working at the firm and how well the company manages to motivate and retain them while the “war” for staffing with engineering talents has already started.

As one can notice the conducted analysis referred to the engineering consulting and design firms in general (regardless the country, economic or industrial sector they operate in, firm’s history, firm’s culture, etc.) and revealed only the common features, challenges, and managerial implications resulting from the action of this competitive force. Therefore, detailed studies can be conducted at a global level by discussing the specificity of engineering consulting and design industry varying from country to country or, within a country, the firm’s specificity, history and culture.

These discussions and their conclusions may depend on a large set of variables and parameters to be taken into account, such as: the industrial development status of the country (highly industrialized, developing, low-developed, or under-developed country), the development perspectives of the country and influence of government policies, the historical evolution of the engineering consulting and design industry in the country, the market sector within the ECDSFs operate, the engineering disciplines in which they are specialized, the international linkage and technology transfer, the strategic approach and concentration on the development factors of the ECDSFs, the availability of professional workforce on the labour market and the actual “war” for staffing with engineering talents, globalization, deregulation, relaxation.

The discussions from the actual paper opened a research path and will be further developed and detailed by the author focusing on the Romanian industrial engineering consulting and design services companies providing professional engineering services for various industrial sectors (e.g. metals, mining, oil & gas, power, heavy machinery and ship building), both old companies established before 1990 and new companies established after 1990.

References

- [1] Alvesson, M. (1995). *Management of Knowledge-Intensive Companies*, Berlin/New York: de Gruyter.
- [2] Alvesson, M. (2004). *Knowledge Work and Knowledge-Intensive Firms*, New York: Oxford University Press.
- [3] Aslesen, H.W. and Isaksen, A. (2007). New perspectives of knowledge intensive services and innovation, *Geographical Annals*, 89B(S1), 45-58.
- [4] Baark, E. (2002). Engineering Services: Emerging Patterns of Knowledge Creation, *DRUID Summer Conference on „Industrial Dynamics of the New and Old Economy – Who is embracing who?“*, Copenhagen/Elsinore, 6-8 June.
- [5] Bagdoniene, L., Kunigeliene, D. and Jakstaite, R. (2007). Relationship Marketing as Factor for Competitiveness of Knowledge-Intensive Business Services' Providers, in *Proceedings of the Service Competitiveness and Cohesion-Balancing Dynamics in the Knowledge Society Conference, Reser 2007: XVIIth International Conference of RESEER*, Tampere, Finland, 103-120.
- [6] Boxall, P. and Steeneveld, M. (1999). Human Resource Strategy and Competitive Advantage: A Longitudinal Study of Engineering Consultancies, *Journal of Management Studies*, 36(4), 443-463.
- [7] Bolisani, E. and Scarso, E. (2013). Marketing audit for Knowledge Intensive Business Services, *The Electronic Journal of Knowledge Management*, 11(5), 389-401, available online at www.ejkm.com.
- [8] Fenton, E.M. and Pettigrew, A.M. (2000). Integrating a global professional service organization: the case of Ove Arup Partnership, in *The Innovating Organization*, Fenton, E.M. and Pettigrew, A.M. (eds.), London: Sage, 47-81.
- [9] Fjeldstad, Ø.D. and Haanaes, K. (2001). Strategy Tradeoffs in the Knowledge and Network Economy, *Business Strategy Review*, 12(1), 1-10.
- [10] Gand, S. (2010). Analyzing and comparing Professional Service Firms over services, time and space. Proposition of a foundation framework., *EGOS 2010*, Lisbon, Portugal.
- [11] Kaiser, S. and Ringlstetter, M. (2011). *Strategic Management of Professional Service Firms*, New York: Springer-Verlag.
- [12] Kreiner, K. and Mouritsen, J. (2003). Knowledge Management as Technology: Making Knowledge Manageable, in B. Czarniawska and G. Sevon (eds.), *The Northern Lights*, Copenhagen: Copenhagen Business School.
- [13] Kreitl, G., Urschitz, G., and Oberndorfer, W.J. (2002). Corporate growth of engineering consulting firms: a European review, *Construction Management and Economics*, 20(5), 437-448.
- [14] Lorsch, J.W. and Tierney, T.J. (2002). *Aligning the Stars – How to succeed when professionals drive results*, Boston: Harvard Business School Press.
- [15] Løwendahl, B.R. (2005). *Strategic Management of Professional Service Firms, 3rd Edition*, Copenhagen: Copenhagen Business School Press.

Note: Contact author for the full list of references.

**Turning Talent Strategy as a Successful Business Strategy for Malaysian Banking
Industry: A Quantitative Analysis**

Dewi Tajuddin, dewi400@salam.uitm.edu.my

Rosalan Ali, rosalan255@salam.uitm.edu.my

Badrul Hisham Kamaruddin, badrulh@salam.uitm.edu.my

Faculty of Business Management, Universiti Teknologi Mara Sabah, Malaysia

Turning Talent Strategy as a Successful Business Strategy for Malaysian Banking Industry: A Quantitative Analysis

Abstract

The aim of the study is to examine talent management practices in the Malaysian banking sector in an attempt to propose it as a business strategy. To realize this purpose, three variables, namely Talent Management Practices (TMP), Employee Value Proposition (EVP) and Talent Brand Strategy (TBS) are examined against 12 indicators of Malaysian banking talents by testifying their direct and indirect relationships. The five hypotheses of the study revealed that there are significant positive relationships between TMP, EVP and TBS, and EVP mediates the relationship between TMP and TBS in the Malaysian banking institutions. With these significant findings, it is suggested that Malaysian local banks regard talent strategy as a business strategy due to the acute shortage of banking talents in Malaysia by practicing talent management at all levels of organization. For that purpose, talent management needs to become a business strategy for Malaysian banks for their growth and profits.

Keywords: Talent Management, Employee Value, Talent Strategy, Intangible Assets

Introduction

According to the human source literature, talent management is a fundamental principle when creating an organization capable of learning, innovating and changing, and executing new processes. According to Blass (2007), talent management can be generally defined as additional management processes and opportunities that are made available to people who are talented in the organization. As businesses today are borderless within a global environment, talent is seen to be having the potential of a powerful source of competitive advantage. As such, talent requires finding, acquiring and retaining the right talent and these should have the full support of management that is necessary for sustainable competitiveness (Malaysia Productivity Corporation, 2009).

Additionally, according to Morton (2005), in order to effectively recruit and retain scarce labor, an organization needs to create and perpetually refine employee value proposition. On this basis, the researchers will identify the level of employee value proposition of talented people within the Malaysian banking sector. Specifically, according to Dell and Hickey (2002), employee value proposition makes clear to employees what extrinsic and intrinsic benefits they will expect in exchange for their labor, both now and in the future. To retain the best and brightest workforce, companies will need to optimize human capital through human resource and organization development strategy (Sweem, 2009). This means turning talent strategy to become a business strategy (Ong, 2009). On this premise, this study attempts to highlight the evolution of talent brand strategy and employee value proposition and subsequently the impact of talent management on talent brand strategy in the Malaysian banking industry. These three variables have linkage with strategic human resource so as to improve the business value of identifying, developing and retaining banking talents (Dewi, 2013). In fact, Malaysian banking industry has recorded a significant increase of turnover rate from barely 7.4% in 2012 to an alarming 13.3% in 2013 (Towers Watson, 2013). As such, the survey also reported that Malaysian banks are taking concerted efforts to improve their young bankers' intention to leave (Hussian et.al) with integrated talent development programs in order to attract, develop and retain their top banking talents into business strategy for strong growth and better profits (Guisse, 2009).

Objectives and Hypotheses of the Study

The general objective of this study is to examine the relationship between organizational differences (Talent Management Practices) and individual (or employee) effectiveness (Employee Value Proposition and Talent Brand Strategy).

Specifically, this study attempts to:

1. Examine the relationship between Talent Management Practices and Employee Value Proposition.
2. Examine the relationship between Talent Management Practices and Talent Brand Strategy.
3. Examine the relationship between Employee Value Proposition and Talent Brand Strategy.
4. Ascertain the mediating effect of Employee Value Proposition by examining its relationship with organizational differences, namely Talent Management Practices and Talent Brand Strategy.

This study attempts to test the following five hypotheses:

- H1: There is a positive relationship between Talent Management Practices and Employee Value Proposition
- H2: There is a positive relationship between Talent Management Practices and Talent Brand Strategy.
- H3: There is a positive relationship between Employee Value Proposition and Talent Brand Strategy.
- H4: Employee Value Proposition mediates the relationship between Talent Management Practices and Talent Brand Strategy.
- H5: Talent Management Practices and Talent Brand Strategy is mediated by Employee Value Proposition; hence proposing talent strategy to become a business strategy for Malaysian banking institutions.

Literature Review

The most effective talent management practices should be organization-specific and be responsive to the organization's unique business and its human capital context. Since this statement is based on D'Annunzio-Green et al. (2008), in ensuring individuals are given opportunities to develop skills and enhance their careers, talent management practices should encompass the whole of the talent management pipeline. For that to happen, Talent Management Practices must be completely aligned with an organization's mission, vision and values, and fully integrated into the organization's long term strategic planning. These aims are proposed by Hannum, Martineau and Reinelt (2007), in an in-depth review of designs for evaluating leadership development and using the evaluation to increase its impact on business.

The above needs were further reinforced by a subsequent report in August 2008 by McKinsey Malaysia & Co quoted as confirming talent to be an important Malaysian corporate resource over the next 20 years. As such, as demand goes up and supply of talent goes down, more and more Malaysian organizations will realize the importance of having talent strategy. In other words, companies should plan for management strategic focus on talent brand strategy and employee value proposition. This is essential to be done as there is acute shortage of banking talents in Malaysia (Taing, 2010) and supported by Zeti (2008) on the need for talent development in the Malaysian banking sector.

The researchers of this study are motivated to examine issues related to talent management practices in the Malaysian banking industry. This is done by examining Employee Value Proposition within an organization. These are important as Talent Management Practices form a powerful and systematic framework for understanding why employees differ in terms of their effectiveness in the banking industry (Boudreau & Ramstad, 2007; Lewis and Heckman, 2006; and O'Donnell, 2002). Since talent management practices is a business strategy and not a human resources strategy as proposed by Ong (2009), it can be generalized that the aim of talent management practices is to identify people in the organization who have more talent than others, and then to develop these people so that they become more experienced and competent, eventually able to play a greater part in the success of the organization, notably the competitive environment of the banking sector. Hence, proposing talent management as a business strategy becomes the thrust of this study.

Research Framework and Methodology

The research framework of this study comprises Talent Management Practices (TMP) as the independent variable, Employee Value Proposition (EVP) as the mediating variable, and Talent Brand Strategy (TBS) as the dependent variable. TMP consists of five dimensions, namely talent acquisition, competency management, leadership development, succession planning and performance management. TBS consists of three dimensions, namely

leadership brand, employee brand and working environment. EVP consists of four dimensions, namely EVP task, EVP contextual, EVP assignment specific and EVP sustainability. As a mediating variable, Employee Value Proposition is expected to mediate the relationship between Talent Management Practices and Talent Brand Strategy.

The population of this study consists of 1413 bank employees in the Malaysian banking industry. The population of bank employees will then be divided into I) Commercial Bank II) Development Financial Institution, and III) Islamic Bank. The differences between banks' employees and banks' category will determine the effects of Talent Management Practices on Employee Value Proposition in the Malaysian Banking industry. For this reason, the study has mailed 82 questionnaires to 1400 respondents with a return of 342 responses.

As this study employs the survey method, for data analysis, the authors use Structural Equation Modelling (SEM) as a model to test for direct and mediating effects, followed by Confirmatory Factor Analysis (CFA) to test for reliability and validity the survey instrument. After the questionnaires were collected, a running number was assigned to each individual respondent before the data were entered into the computer for analysis. The running number functions as an identification code for each respondent for the purpose of checking their responses if there was a problem with the quality and validity of data collected. The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS) 17.0 program and Structural Equation Modeling (SEM).

Results and Discussions

In this section, a summary of the research findings are provided in relation to the four research objectives of this study.

Research Objective 1: The Relationship between Talent Management Practice and Employee Value Proposition

The first objective of this study is to examine the relationship between Talent Management Practices and Employee Value Proposition in Malaysian banks. The results indicated that Talent Management Practices were significantly positively related to Employee Value Proposition. This supports Dell and Hickey (2002) whose study confirmed that Employee Value Proposition is an important component that makes clear to employees 'what is in it for them'. In fact, Morton (2005, p 11) asserts that, 'Talent Management is integral to engaging employees in the organization'. This statement has brought together effective Talent Management Practices (TMP) and Employee Value Proposition (EVP) to the organization to make sure the organization can successfully acquire and retain the essential talents. As such, this study has confirmed on the significant relationship between TMP (that represents processes of talent program) and EVP (that represents retaining talented employees).

Going forward, Talent Management Practices were found to be positively related to Employee Value Proposition, thus supported the study by American Productivity and Quality Center (2004). The 2004 study found the followings: Talent Management components and accountabilities of senior leadership roles, finding talent (competency models, talent gaps, recruiting and assessment techniques), delivering performance (development performance management and retention) and talent metrics. This means that organizations differ with respect to some key issues such as level of management involvement, and the application of Talent Management components, processes and practices by different organizations. In addition, this study also reports that Talent Management Practices (TMP) focus on the most valued talent, such as having committed Chief Executive Officers and senior executives. This shows that the various Talent Management components can be coordinated into a larger system, as verified by the current study in which TMP represents the process system of talent development that is to be practiced and coordinated at all levels of the organization (Malaysia Productivity Corporation, 2009).

Uren (2011) identifies what talent management might need to look like in order to meet the future needs of an organization and the requirements of the upcoming generation of talented individuals. Samuel (2010) shared findings of how organizations can improve their performance by adopting a more strategic and personalized approach to talent management. Moreover, this is testified by the significant relationship between the system (TMP) and employees (EVP) in this study.

Interestingly, the findings of this study revealed that overall, the significance of the link between Talent Management Practices and Employee Value Proposition was found to favor large number of employees in Malaysian banks. The findings also indicated that employees in Malaysian banks possess a higher level of capability to function and

manage effectively Talent Management Practices as a system of talent development, and Employee Value Proposition in terms of valuing employees' commitment.

In summary, the first objective of the study was achieved as the results indicated that after examining the relationship between Talent Management Practices and Employee Value Proposition, Talent Management Practices were found to be significantly positively related to Employee Value Proposition.

Research Objective 2: The Relationship between Talent Management Practices and Talent Brand Strategy

The second objective of this study is to examine the relationship between Talent Management Practices and Talent Brand Strategy in relation to employees in Malaysian banks. The results indicated that after accounting for the relationship between Talent Management Practices and Talent Brand Strategy among employees in Malaysian banks, Talent Management Practices were found to be significantly positively related to Talent Brand Strategy. Therefore, the second objective of this study was also achieved.

The findings of this study supported the work of Gubman et al. (1998). This means that it provided empirical evidence with regards to connecting people to strategy to serve customers as this will build extraordinary results and having long term value. For this, they described the Hewitt alignment model of aligning strategy with talent and outcomes, and made the argument that there is a talent solution to many business problems; hence talent should become a business strategy. As documented earlier, after five years of extensive survey studies involving 120 companies by McKinsey & Company, Michael et al. (2001) highlighted the importance of ways to attract, develop and retain talent. As the present study testified that talented people are drawn to organizations that will help the organizations to develop new skills, knowledge and experience, it describes how Talent Management is integrated into the system and this integrative talent program can grow over time in the Malaysian banking sector. As such this requires an investment in talent (Zeti, 2008) due to the acute shortage of banking talents (Taing, 2010).

Therefore, the findings of this study indicated that attributes and behaviors support Malaysian banks' talent strategy. This is supported by a strong, significant relationship between Talent Management Practices (TMP) and Talent Brand Strategy (TBS). As such, the results of this study suggested that Malaysian banks need to be aware of the fundamentals of a corporate culture by diagnosing the organization's relationship with its employees and deciding on the form of management-employee relationship. This implies that banks need to have their own systematic talent program (TMP) and strategic leadership branding (TBS).

Research Objective 3: The Relationship between Employee Value Proposition and Talent Brand Strategy

The third objective of this study is to examine the relationship between the Employee Value Proposition and Talent Brand Strategy among the employees of Malaysian banks. As such, the findings of the study supported Dell and Hickey (2002) who empirically verified the relationship between Employee Value Proposition (EVP) and employer brand (Talent Brand Strategy). They found that the development of Employee Value Proposition is an important component of an employer brand. This is arguably a compelling approach when dealing with an impending labour crisis and this may as well be an effective strategy for enhancing the competitive positioning of an organization and its employer brand. At this point, this study validates on the need for Malaysian banks (organization as represented by TBS) to identify, recruit, develop and retain a pool of talents (employees as represented by EVP).

Likewise, this study supported the research by Morton (2005) regarding effective recruitment and retention of scarce employees. In other words, organizations that are able to successfully recruit and retain valued employees imply that they are committed to showing potential employees that they are valued, and opportunities exist for them. This means that effective employer branding (TBS) keeps current and potential employees continuously aware of the company's Employee Value Proposition (EVP) and its benefits. Therefore, this study has successfully achieved significant relationship between EVP and TBS, in the Malaysian banking sector. Thus, this study concludes with positive findings in relation to the relationship between Employee Value Proposition and Talent Brand Strategy. This also indicated that employees in Malaysian banks possess higher levels of capability to function and manage effectively Employee Value Proposition and Talent Brand Strategy.

In summary, the third objective of the study was achieved as the results indicated that after examining for the relationship between Employee Value Proposition and Talent Brand Strategy, it was found that the two variables were

significantly positively related to each other. The results also revealed a positive relationship between Employee Value Proposition and Talent Brand Strategy.

Research Objective 4: Mediating effect of Employee Value Proposition on the relationship between Talent Management Practices and Talent Brand Strategy

The fourth objective of this study was to examine the mediating effect of Employee Value Proposition on the relationship between Talent Management Practices and Talent Brand Strategy. The results revealed that Employee Value Proposition has partially mediated the relationship between Talent Management Practices and Talent Brand Strategy. This has fulfilled the fifth research objective of this study. One major implication of the inclusion of Employee Value Proposition in this study is to put to realization that an organization is responsible for the effects of Talent Management Practices and Talent Brand Strategy on employees.

The mediating role of Employee Value Proposition has been discussed by Dewi (2013) who clarified the process which subsequently led to employees and prospective employees to be attracted to remain with the organization. Her doctoral thesis also clarified about the role of organizational attractiveness and employee-based brand equity as these are important that will lead to the intention to apply, respond to job offers, and remain with the organization. As such, this study has validated on the need to have an integrated system of talent programs (TMP) involving recruitment, development and retention of talented employees (EVP) by Malaysian banks (TBS) due to the intensity of banking competitions (Zeti, 2008) and acute shortage of banking talents (Taing, 2010). This also calls for an integrated banking talent development (Syed et al., 2012).

With reference to Dell and Hickey (2002), employer branding establishes the identity of a company as an employer. Additionally, the results of this study are also in line with Morton (2005) as noted earlier on the significant relationship between TMP as a system of talent management, TBS as an organizational leadership branding and EVP as valuing the commitment of employees, with respect to the Malaysian banking sector. Based on these premises, the researcher has provided some evidence in relation to the mediating role of Employee Value Proposition on the relationship between Talent Management Practices and Talent Brand Strategy. In this regard, the present study was the first to examine the mediating effects of Employee Value Proposition on the relationship between Talent Management Practices and Talent Brand Strategy, by using employees of Malaysian banks.

In summary, the fourth objective of the study was achieved as the results revealed that Employee Value Proposition has partially mediated the relationship between Talent Management Practices and Talent Brand Strategy.

Concluding Remarks

Talent Management Practices (TMP) as a variable was found to be a significant predictor of Employee Value Proposition (EVP) and Talent Brand Strategy (TBS). This implies that TMP is an essential mechanism to generate creativity out of employees. This is important as TMP is able to facilitate EVP and TBS in Malaysian local banks. In addition, EVP in the empirical model is also found to mediate the relationship between TMP and TBS. In other words, EVP carries the influence of the TMP on TBS. This indicates that TMP will predispose bank employees in the Malaysian local banks to have effective EVP, which in turn will provoke TBS to develop talent systems, and enhance employers' commitment and employees' development. This study also provides critical insights by emphasizing and reinforcing on the importance of talent system for successful accomplishment of talent programs in Malaysian local banks. Particularly in this era of financial globalization, Bank Negara Malaysia has since 2008 been concerned about the acute shortage of banking talents; hence justifying the need for talent management to be a useful business strategy for banking businesses to remain competitive and profitable in the long run.

References

- [1] American Productivity & Quality Center. (2004). *Talent Management: From competencies to organizational performance: final report*. Houston: America Productivity and Quality Center.
- [2] Barlow, L. (2006). Talent development: the new imperative? *Emerald group publishing limited: Development and learning in organizations*, 20(3), 6-9.
- [3] Bersin, J. (2007a). *High impact Talent Management: Trends, best practices and Industry solutions*. Oakland: Bersin & Associates.
- [4] Bhatnagar, J. (2007). Talent Management of employee engagement in Indian ITES employees: key to retention employee relations. 29(6), 640-663.
- [5] Blass, E. & April, K. (2008). *Developing Talent for tomorrow*. Ashridge Faculty Publications 1. Extracted from www.ashridge.org.uk.
- [6] Boudreau, J. W. & Ramstad, P.M (2005). Talentship, talent segmentation, and sustainability: a new HR decision science paradigm for a new strategy definition. *Human Resource Management*, 44(2), 129-36.
- [7] Creelman, M. (2004). *Return On Investment in Talent Management: measure you put to work right now*. Human Capital Institute.
- [8] Cappelli, P. (2008a). Talent Management in the twenty first century. *Harvard Business Review*, 86(3), 74-81.
- [9] Cheese, P. (2008). Driving high performance in the talent-powered organization. *Emerald group publishing limited*, 7(4), 25-31.
- [10] Dell, D., & Hickey, T. (2002). *Sustaining the talent quest*. New York, The Conference Board.
- [11] Deloitte Consulting. (2010). *Talent Edge 2020: Blueprints for the new normal* retrieved. http://www.deloitte.com/assets.Dcom.United States/Local 1% 20 Assets/Documents/talent/_talent edge 2020_121710.pdf.
- [12] Dewi, T. (2013). The study on the relationships between talent management practices and talent brand strategy and mediating role played by employee value proposition. PhD thesis, Universiti Malaysia Sabah, Malaysia.
- [13] D'Annunzio-G.S. (2008). Managing the Talent Management Pipeline. *International Journal of Contemporary Hospitality Management* 20(7), 807- 819.
- [14] Farley, C. (2005). HR'S role in talent management & driving business results. *Employment Relations Today*, 32(1), 55-61.
- [15] Guisse, L.M. (2012). Financial performance of the Malaysian banking industry: Domestic versus foreign banks. MSc. Thesis, East Mediterranean University, Cyprus.
- [16] Guthridge, M., Komm, A.B. & Lawson, E. (2008). Making talent a strategic priority. *McKinsey Quarterly*.
- [17] Guthridge, M., & Komm, A.B. (2008). Why multinationals struggle to manage talent. *McKinsey Quarterly*.
- [18] Hannum, K. M., Martineau, J., Wand R. C. (2007). *The Handbook of Leadership Development Evaluation*. New York NY: John Wiley & Sons.
- [19] Heera, L. (2009). Maximizing profit and driving excellent through Talent Management and leadership success. Conference: May 2009 Kuala Lumpur_(365-73).
- [20] Heinen, J. S. a. O. N. (2004). Managing talent to maximize performance. *Employment relations today* 31(3365), 73.
- [21] Hughes, J. & Rog, E. (2008). Talent Management: a strategy for improving Employee Recruitment retention and engagement within hospitality organizations. *International Journal of Contemporary Hospitality Management*, 20(7), 743-757.
- [22] Hussain, A; Yunus N; Ishak N and Daud N. (2013). *The influence of intentions to leave towards employment engagement among young bankers in Malaysia*. *International Journal of Business and Management*. Vol. 8, No. 143.

- [23] Joyce, L. (2009). *Building the talent pipeline: attracting and recruiting the best and brightest*. The Professional Practice Series: A publication of the society for industrial and Organizational Psychology, 123-158.
- [24] Lacobucci, D. (2008). *Mediation analysis* (Quantitative applications in the social sciences).
- [25] Lewis, R., E, & Heckman, R.J. (2006). Talent Management: A Critical Review. *Human Resource Management review*, 16, 130-154.
- [26] Lutbish, G. a. S., I (2007). Talent Management: a strategic imperative. *The Ashridge Journal*, 6-11.
- [27] Malaysian Productivity Corporation. (2009). *Malaysian Productivity Corporation*. Retrieved from www.mpc.gov.my.
- [28] Marcia, J. & Avedon, G. S. (2009). *Building competitive advantage through integrated Talent Management*. The Professional Practice Series: A publication of the society for industrial and Organizational Psychology, 73-119.
- [29] Mckinsey & Company (2007). The organization challenges of global trends. *A Mckinsey global survey*, Mckinsey Quarterly retrieved.
- [30] Michaels, E., Hamdfield-Jones.,H., & Axelrod, B. (2001). The war for talent. *Boston: Harvard business school press*.
- [31] Morton, L. (2004). Integrated and integrative Talent Management: A Strategic Human Resource framework. New York: Conference Board.
- [32] O'Donnell, A. D., M.G & McCartan,Q. D. (2002). Corporate banking in the UK: personal versus remote interaction. *International Journal of Bank Marketing* 20(6), 3-17.
- [33] Ong, K. (2008). *Aligning talent management and succession planning with business strategy*. Case study of CNI's Journey. CNI Holdings Berhad. Kuala Lumpur
- [34] Silzer, B. E. D. (2009). *Strategic Talent Management Matters*. The Professional Practice Series: A publication of the society for industrial and Organizational Psychology, 3-71.
- [35] Suffian, F. (2009). Factors influencing profitability in a developing economy: Empirical evidence from Malaysia. *Global Business Review*, 10:25
- [36] Sweem, S. (2009). Leveraging employee engagement through a talent management strategy: Optimizing Human Capital through Human Resource and Organization Development strategy in a field study. *ProQuest LLC: UMI 3349408*.
- [37] Syed Abdul Jamal, Roshidi Hassan and Roslan Embi. (2012). Talent Management for Malaysian government companies. UiTM, Shah Alam, Malaysia.
- [38] Taing, Anna. (2010, June 21). Random Thought: Demand for talent in banking sector heating up *The Edge*, Kuala Lumpur
- [39] Towers Watson. (2013). Higher turnover rate in Malaysian financial services industry. Asia Pacific Global Data Regional Practice Leader. Kuala Lumpur
- [40] Zeti. A. (2008). Building Human Capital for emerging challenges: Governor's speech at the 9th Bank Human Resources Conference:(Govenor of the Central Bank of Malaysia). 9th Bank Human Resources Conference, organized by the Indian Inst.of Banking and Finance (IIBF).
- [41] Zheng, C. (2009). Keeping talents for advancing service firms in Asia. *Journal of Service Management*, 20(5), 482-502.

**Psychological Aspects of the Business Development:
Personality Factors of Successful Innovative Activity**

Sergey Yagolkovskiy, syagolkovsky@hse.ru, yagser@mail.ru
National research university Higher school of economics, Russia

Psychological Aspects of the Business Development: Personality Factors of Successful Innovative Activity

Abstract

The present study focuses on personality factors which determine the effectiveness of the individual innovative activity. I analyzed relations between the most important psychological determinants of innovation: personal innovativeness, creativity, average intelligence, and novelty seeking. Obtained data showed that there is no significant correlation between innovativeness and creativity. This finding contradicts the idea that creativity and personal innovativeness closely relate to each other. But it looks as a partial support for the statement that creativity is the first step in future innovations. Performed analysis revealed no significant correlation between innovativeness and average intelligence. On the contrary, a correlation between personal innovativeness and novelty seeking was significantly positive ($r_s=.4$, $p<0.05$). Results of the study can be applied to various procedures and stages of the innovation management.

Introduction

Innovations are very important component of the successful entrepreneurship and business development. The effectiveness of the innovative process is determined by personal characteristics of those individuals who produce new ideas, as well as adopt and modify them. Creativity, personal innovativeness, intelligence, and novelty seeking could be regarded as the most important factors in this context.

Creativity

Creativity is often seen as an activity that is closely related with making new products in various forms. It is sometimes regarded as an ability to create a problem situation. In this context, creativity could be closely related not only with the creation of a new need or a problem situation, but also with construction of new knowledge criteria, which are important for the solution.

Schweizer (2006) regards creativity as a concept which comprises 2 processes: novelty finding and novelty producing. Novelty finding is closely related with individual need to cognition, as well as with abilities to remote associating, defocusing, and problem-solving. Novelty producing is determined by the following neurocognitive and personality traits: self-confidence, perseverance, egocentrism.

The investment theory sees creativity as an ability to “buy low and sell high” (Sternberg and Lubart, 1999). According to this theory, creativity is a confluence of six interrelated resources: intellectual abilities, knowledge, styles of thinking, personality, motivation, and environment.

Socio-cultural approach to the study of creativity regards it as the development of those ideas which could be generally accepted by others and society. Numerous empirical researches on creativity revealed also the role of the unconscious in creative process. It was shown that unconscious activity helps to select and evaluate prospective ideas (Ritter, van Baaren, and Dijksterhuis, 2012).

Crucial point in creativity research is an examination of its particular parameters. One of the most important quantitative characteristics of creativity is fluency (or productivity): the more ideas a person generates, the more unique ideas could be among them. One more quantitative parameter is flexibility (the number of semantic categories which generated ideas belong to). Originality (degree of novelty and innovative potential of new ideas) and feasibility (relevance of ideas to the topic or potential to be implemented in practical way) are the most important qualitative characteristics of creativity.

Innovativeness

An ability to adopt and apply new original novel ideas is closely related with innovativeness which is an important determinant of the development in various fields of human activity. According to the theory of diffusion of innovation, there are 5 categories (differentiated by the innovativeness level) which all people belong to: a) innovators, b) early adopters, c) early majority, d) late majority, and e) laggards (Rogers, 1995).

One of the most important points in the research on innovativeness is an exploration of particular ways of the new ideas adoption and their further implementation. Hirschman (1980) proposes two kinds of innovativeness: adoptive and vicarious. *Adoptive* innovativeness is closely related with the direct adoption of a new product, service, etc. It refers to the object. *Vicarious* innovativeness is a tendency of the subject to acquire new information about the new product, service etc. In contrary with adoptive innovativeness, it refers to a concept of the object. She also proposed one more kind of innovativeness: *use innovativeness* which is a person's ability to use the product, which had been adopted previously, to solve a new problem.

Some authors distinguish between cognitive and sensory innovativeness. Cognitive innovativeness is the subject's predisposition to be engaged in new activity and experiences, and to enjoy them. This activity stimulates cognitive abilities (Pearson, 1970). Sensory innovativeness is a tendency to "...enjoy internally generated experiences, such as fantasy and daydreaming and externally available thrilling and adventurous activities, such as sky diving" (Venkatraman and Price, 1990, p. 295).

Hirunyawipada and Paswan (2006) in their research classify consumer innovativeness into three levels of abstraction: global innovativeness, domain-specific innovativeness, and innovative behaviour.

Innovativeness could be also regarded as a determinant of innovative performance which depends on the productivity of person's interaction with the social environment. In this context innovative performance relates to particular personality characteristics: achievement needs, self-confidence, perseverance, assertiveness, proactivity, extraversion, and cooperativeness (Schweizer, 2006).

Novelty seeking

Novelty seeking is often regarded as a manifestation of individual's propensity to search for new information.

Hirschman (1980) distinguishes between two kinds of novelty seeking:

- seeking new information;
- varying choices among known stimuli.

She divides the concept of novelty seeking into two components. The first is an inherent novelty seeking that looks as a desire to find novel stimuli. It relates to accumulation of potentially useful knowledge and improvement of individual problem-solving skills. The second is an actualized novelty seeking which is associated with individual behaviour to acquire novel stimuli.

Manning, Bearden, and Madden (1995) consider consumer novelty seeking as a desire to look for new product information through mass media, direct product exposure, and various kinds of the commercial communications. Schweizer (2006) introduces the Novelty Generation Model (NGM) on novelty-seeking, creativity and innovative performance. In this model novelty seeking is regarded as the first stage of the whole novelty generation process which comprises also creativity and innovative performance. In accordance with the NGM, novelty seeking is determined by individual neurocognitive and personality traits: curiosity, excitability, impulsiveness, easily bored, disinhibition, and proactivity.

Intelligence and its relation with creativity

Intelligence is a basic psychological characteristic of an individual who is involved into innovation process. For many decades of scientific examination, it has been analyzed from various aspects. There are a lot of theoretical and experimental studies which provide us with definition and verified knowledge about this concept. On one hand, it could be regarded as an important determinant of innovation: to produce novel ideas and to implement them a person must have appropriate intellectual abilities. On the other hand, intensive intellectual activity could disrupt creativity and sometimes be rather harmful for the innovative performance. So, the role of intelligence in the individual innovative activity looks quite ambiguous. This ambiguity appears also in the relationship between intelligence and one of the most important determinant of innovation, - creativity. There are a lot of theories and models which examine this relation. In general, there are several approaches to the understanding of relations between them: intelligence and creativity look as components of each other; they are regarded as concepts which are associated with each other; they are independent from each other with partial overlapping; they are completely disjointed sets.

Classic in the psychology "threshold model" of the relationship between the mentioned concepts quite good explains not only this relation but also the ambiguous role of the intelligence in the context of individual innovative

activity (Guilford, 1967). In accordance with this model, complex relations between creativity and intelligence exist: a linear association below IQ=120 and weaker association or no association at all above this level.

Relation between creativity and innovativeness

In the scientific literature relationship between creativity and innovativeness has also been discussing. Creativity is closely related with production of new, original and potentially useful ideas. But these creative products could be regarded only as the first step in future innovations. Novel ideas and solutions become real innovations after their adoption and subsequent implementation.

Results of numerous studies examining the relation between creativity and innovativeness are quite controversial. For example, the relationship between these personal characteristics has been analyzed by Müseldili, Turan, and Erdil (2013). They found significant at the 0.01 level positive correlation between creativity and innovativeness. But Czop and Leszczynska (2009) found no statistically significant correlation between these characteristics of an individual who is involved into the innovation process.

Relation between innovativeness and novelty seeking

There are different approaches to the understanding of relationship between concepts of novelty seeking and innovativeness, too. Hirschman (1980) sees actualized novelty seeking and actualized innovativeness as different concepts. Actualized novelty seeking relates to the *behaviour* which focuses on an acquisition of new information. Actualized innovativeness refers to the direct acquisition of new information. In contrary, Venkatraman and Price (1990) see consumer innovativeness and novelty-seeking behaviour as the same concept. It can be seen as a need to get something new which is a predisposition to look for new products and services. It relates to the desire for new experiences and trying new products.

The main goal of the present study was an evaluation of correlations among main psychological factors which determine to a considerable degree the effectiveness of individual innovative activity: creativity, innovativeness, novelty seeking, and intelligence.

Method

Participants

The sample consisted of 145 students (92 males and 53 females) with ages ranging from 17 to 24 years ($M=19.45$, $SD=1.94$)

Materials

To measure creativity parameters Guilford's "Unusual uses" verbal test of creative thinking was used. In the course of individual creativity diagnostics, the following parameters were analyzed (Guilford, 1950):

- productivity (a total number of ideas proposed by a respondent);
- flexibility (a number of semantic categories participant's proposed ideas relate to);
- originality (singularity and statistical rarity of proposed ideas).

For the assessment of participants' innovativeness the Kirton Adaption – Innovation Inventory (KAI) was utilized (Kirton, 1989). That is a 32 item self-report scale. After processing of obtained data, a person can be located on a continuum ranging from highly adaptive to highly innovative. The average intelligence was assessed by Wonderlic Test. I assessed the degree of the novelty seeking by using the Zuckerman Sensation Seeking Scale (Zuckerman, 1979).

Procedure

Firstly, participants were given Guilford's verbal test of creative thinking "Unusual uses". They had to think up during assigned 6 minutes a maximum number of all possible applications of wooden ruler. Afterwards, they answered questions of the Kirton Adaption – Innovation Inventory and the Zuckerman Sensation Seeking Scale. Finally, they performed Wonderlic Test.

Results

All transcripts which had been taken from respondents were processed by the experimentalist assistant.

The most difficult and important point was assessment of participants' originality scores. It was done by using a five-point scale from not original (1) to highly original (5) in accordance with tables provided by the test "Unusual uses". Afterwards, a correlation analysis on the whole set of obtained data was performed. Results of the analysis are presented in Table 1.

TABLE 1: DESCRIPTIVE STATISTICS AND CORRELATIONS

Characteristics	M	SD	1	2	3	4	5	6
1.Fluency	12.15	4.12	1.0	.7**	.06	.19	.2	.35*
2.Flexibility	9.66	3.47		1.0	.14	.09	.31	.22
3.Originality	3.37	1.25			1.0	.08	.06	.08
4.Innovativeness	110.15	19.38				1.0	.4*	-.1
5. Novelty seeking	9.81	2.69					1.0	.11
6.Intelligence	28.74	5.31						1.0

**Significant at the 0.01 level

*Significant at the 0.05 level

As can be seen, there is no significant correlation between the most important personality factors of innovation: innovativeness and creativity. I found no significant correlation between innovativeness and average intelligence, too. On the contrary, a correlation between personal innovativeness and novelty seeking was significantly positive ($r_s = 0.4$, $p < 0.05$). It is also shown in the Table 1, that the fluency of participants' creative performance has positive significant relation with their intelligence ($r_s = .35$, $p < 0.05$) and flexibility ($r_s = 0.7$, $p < 0.01$).

Discussion

The main objective of the study was assessment of relations among different psychological characteristics of a person in the context of his/her innovative activity. Quite high significant correlation between fluency and flexibility of participants' creative performance has the evident explanation: the more ideas were generated by an individual (fluency), the more semantic categories would be related with this big amount of ideas (flexibility). Such a high significant correlation between fluency and flexibility takes place often in the assessment of creativity using "Unusual uses" test.

A significant correlation between fluency and average intelligence with the lack of significance of a correlation between flexibility and intelligence support the idea that rational thinking relates to the producing of quite big amount of similar ideas with low variety. The higher score of intelligence a person has, the more similar and semantically homogeneous ideas are tended to be produced by him/her. The analysis of obtained data showed that there is no significant correlation between intelligence and originality of participants' creative performance. Taking into account that originality was assessed in accordance with psychometric principle, this result means that one's average intelligence does not relates to statistical rarity of his/her ideas and divergent thinking, as well. Originality is often regarded as the most important parameter of individual creativity. So, the mentioned result could be seen as a

partial support for the idea that intelligence and creativity don't associate with each other. At the same time, it might be a promising point for future research on the topic to examine in more detail relations between particular components of the intelligence and originality of individual creative performance.

I found no significant correlation between innovativeness and average intelligence, too. This result looks as an argument which does not support the idea that cognitive processes are the most important components of the individual innovative activity. It could be also regarded as a ground to examine concept "cognitive innovativeness" in more detail. (Pearson, 1970). The mentioned finding also statistically supports the idea that individuals with high score of their intelligence are quite often not successful in the implementation of novel ideas.

It was shown in the introduction section that differences and similarities between novelty seeking and innovativeness is a quite controversial point in the research on psychological aspects of innovation (Hirschman, 1980; Venkatraman and Price, 1990). The analysis of the obtained data in the study revealed a significant positive correlation between these personal characteristics. This result looks as a support for the statement that novelty seeking and innovativeness are the same concept. But taking into account that this topic is very important and at the same time controversial, the point of relationship between novelty seeking and innovativeness needs to be examined in future research in more detail.

This study presents an empirically validated model of the relationship among psychological factors of successful innovation. It can have managerial and entrepreneur applications. Results of the present study could be also used for more profound understanding of the concepts of creativity, innovativeness, and novelty seeking. Revealed relations among some of the analyzed psychological characteristics could be used in developing of methods for enhancing the individual creativity and innovativeness, as well as in various procedures and stages of innovation management.

References

- [1] Czop, K., & Leszczynska, A. (2009). Internal entrepreneurship, innovativeness and creativity in empirical studies of Polish organisations. *International Journal of Business and Systems Research*, 3(3), 330-350.
- [2] Guilford, J.P. (1950). Creativity. *American Psychologist*, 5, 444-454.
- [3] Guilford, J.P. (1967). *The nature of human intelligence*. New York: McGraw-Hill.
- [4] Hirschman, E.C. (1980). Innovativeness, novelty seeking, and consumer creativity. *Journal of consumer research*, 7, 283-295.
- [5] Hirunyawipada, T., & Paswan, A. K.. (2006). Consumer innovativeness and perceived risk: Implications for high technology product adoption. *Journal of Consumer Marketing* 23 (4), 182–198.
- [6] Kirton, M.J. (Ed.) (1989). *Adaptors and innovators: Styles of creativity and problem solving*. London: Routledge.
- [7] Manning, K.C., Bearden, W.O., & Madden, T.J. (1995). Consumer innovativeness and the adoption process. *Journal of Consumer Psychology*, 4(4), 329-345.
- [8] Museldili, B., Turan, H., & Erdil, O. (2013) The influence of authentic leadership on creativity and innovativeness. *Procedia - Social and Behavioral Sciences*, 99, 673 – 681.
- [9] Pearson, P.H. (1970). Relationships between global and specific measures of novelty seeking. *Journal of Consulting and Clinical Psychology*, 34, 199–204.
- [10] Ritter, S. M., van Baaren, R. B., & Dijksterhuis, A. (2012). Creativity: The role of unconscious processes in idea generation and idea selection. *Thinking Skills and Creativity*, 7, 21– 27.
- [11] Rogers, E.M. (1995). *Diffusion of Innovations* (4th ed.). New York: The Free Press.
- [12] Schweizer, T.S. (2006). The psychology of novelty-seeking, creativity and innovation: Neurocognitive aspects within a work-psychological perspective. *Creativity & Innovation Management*, 15(2), 164-172.
- [13] Sternberg, R.J. & Lubart, T.I. (1999). The concept of creativity: prospects and paradigms. In R.J. Sternberg (Ed.), *Handbook of creativity* (pp. 3-16). Cambridge, UK: Cambridge University Press.
- [14] Venkatraman, M.P., & Price, L.L. (1990). Differentiating between cognitive and sensory innovativeness. Concepts, measurement, and implications. *Journal of Business Research*, 20, 293–315.
- [15] Zuckerman, M. (1979). *Sensation Seeking: Beyond the Optimal Level of Arousal*. Hillsdale, NJ: Lawrence Erlbaum.

Leadership & Education

Relationship between leadership and variable compensation with psychological empowerment factors and the effectiveness of mid-level employees of Mexico's largest companies

Adriana Segovia Romo, adrianasegovia@hotmail.com

Joel Mendoza Gómez, joelmendoza@gmail.com

Mónica Blanco Jiménez, moniblanco77@hotmail.com

Universidad Autónoma de Nuevo León, México

Relationship between leadership and variable compensation with psychological empowerment factors and the effectiveness of mid-level employees of Mexico's largest

Abstract

This research shows an analysis of literature regarding the factors affecting the employee effectiveness and the existence of this relationship in Mexican organizations. The relevance of this work is that the labor market has been studied through years, but for developing countries like Mexico there is still plenty to investigate. The hypothesis of this paper shows the relationship of the factors: Transformational Leadership and Variable Compensation, with psychological empowerment and finally with employee effectiveness. To test that, we developed a survey applied to mid-level employees of Mexican enterprises in the north east of Mexico in which we used statistics of structural equation models. The results show a strong impact on these factors, except for the relationship with the variable compensation.

Keywords: Leadership, empowerment, variable compensation, mid-level employees, Mexico

Introduction

This study arises of the organizations' need to be competitive and innovative in the economically aggressive and changing context in which we live today. In order to fulfill the current requirements with a well-organized system of business management, it is essential to have organizational effectiveness. Thus, a large amount of scholars in human capital management area have worried about finding the best ways to get it. According to Estrada (2006), organizations must adapt to increasingly competitive markets, which led them to become flexible and dynamic. People in senior management level show their concern by maximizing productivity and competitiveness.

To meet these expectations new ways to motivate the human capital have arrived; today, an organization seeking to survive should focus on achieving a reasonable level of commitment among employees. Studies tell that psychological empowerment promotes an increased performance. It generates commitment and simultaneously produces benefits in the long term for the mid-level employees within the organizational hierarchy (Schein, 1973).

Taplin & Winterton (2007) mention leadership style as another variable to consider in the personnel motivation. The leadership style is considered a force that can determine the organizational competitiveness in a global economy (Bass, 1999). It has been found in different studies that there are already more organizations that include the variable compensation in its payment system, which means a part of the salary is based on achieving planned results (Mañana, 2010). Santone, Sigler & Britt (1993) comment that many researchers found evidence of the important role played by the variable compensation to align the interests of employees with shareholders. Based on the above statements, leadership style and the psychological empowerment with the variable compensation acquire increasing relevance in the organizations.

It is important to emphasize that in Mexican companies there are a few studies about it (Mollic, 2011). For example, Rodríguez & Castillo (2009) comment that the labor market has been studied through the years, but for developing countries like Mexico there is plenty to investigate. For this paper it is important to consider the following research question: *Is psychological empowerment positively related with leadership style and variable compensation as the effectiveness of the mid-level employee in Mexican large firms?*

The objective of this work is to identify whether psychological empowerment is positively related with leadership style and variable compensation in the effectiveness of the mid-level employee in Mexican large firms measured through its two components: attitudinal results and performance results. In order to answer the question the following general research hypothesis is formulated: It is proposed that psychological empowerment is positively related with leadership style and variable compensation with the effectiveness of the mid-level employee in Mexican large firms.

This study is justified due to the international environs in which these organizations work, and thus have to be effective in order to remain competitive. The organizational effectiveness should be measured, and the employee

performance level at work is essential to achieve it. Therefore, it is necessary to explore new approaches on human resources that allow sustained growth in the long term; thus, human capital represents the resource to get it. As practical justification, this research analyzes the effectiveness of mid-level employees of the companies in Mexico; because there are a few studies done in Mexico and most of them may not apply in any social context (Davila & Elvira, 2007).

Literature review

Robbins (2004) revealed that the most important reasons why people want to stay in organizations are the quality of the working environment and the design of their jobs. Hence, it is important to develop the skills to manage people for managers and organization leaders. Continuing with Pfeffer (2010), putting people first is a common characteristic of successful companies, but this is not consistent with current competitiveness. In proactive and motivational leadership, plus highly committed employees are basic, and psychological empowerment, teamwork, and an effective variable compensation system that recognizes the good performance among mid-level employees are the sources to achieve them.

1. Psychological Empowerment.

Raquib, Anantharaman, Cyril Eze & Murad (2010) assumed that new skills and experiences can be a key factor to materialize the empowerment in organizations. In previous studies, Conger & Kanungo (1988) identified four conditions of the psychological empowerment: leader influence, organizational factors, rewards system and job characteristics. Thomas & Velthouse (1990) describe the psychological empowerment as increased intrinsic motivation in the performance of the function based on four concepts: task significance, competence, self-determination and impact. Spreitzer (1995) defines it as an internal motivation that comes in four cognitions types that guide the individual approach in the performance of its duties.

Psychological empowerment is conceptualized in this study as the internal state that reaches the employee to assess its social reality in the organization. It is related to the employee effectiveness, and the psychological empowerment in a mediating role that can be considered as an administrative tool which may improve the effectiveness to generate a positive and proactive attitude in employees, according to Mendoza & Flores (2006). Liu, Chiu & Fellows (2007) comment that empowerment enhances efficacy, through commitment and motivation in mid-level employees. Psychological empowerment is also presented as a second-order factor; thus, being a general approach for representing constructs consisting of several highly related domains (Chen, West, & Sousa, 2006).

2. Leadership style.

The strong pressures of today's competitive environment generate the need for constant risks; therefore, a leadership style insisting on compliance and rules enforcement does not apply (Sapna, 2010). A key element in any company success is the motivation of the executive team to reach the staff's full potential. This team should also provide guidance to generate the ownership of problems in order to benefit the organization (Bennet, 2009). Several authors have written about the different styles of leadership. Transformational leadership being part of this study, it is defined by Pieterse, Knippenberg, Schippers & Stam (2010) as a way to change the followers' moral, ideals, interests and values, encouraging them to perform effectively. It is based on a social contract instead of an economic one (Ismail, Mohamad, Mohamed, Rafiuddin and Zhen, 2010).

The relationship between leadership style and employees has a significant impact on the level of commitment. The manager's ability to provide a strong leadership produces a positive impact on employee's job satisfaction (Danish and Usman, 2010). According to Prokopenko (2009), the efficient management and the human resources development is essential to the employee effectiveness focused on improved productivity and competitiveness.

3. Variable compensation.

Kanter (1986) commented that there was a movement encouraging companies to switch to a payment system with fixed low base salary, with a high likelihood of variable earnings controlling fixed costs and motivating good performance in order to maintain an adequate the competitiveness level. Javed et al. (2010) suggest emphasizing mixed

payment for their impact on workers morale. Madhani (2009) notes that payment is a powerful communicator of goals across all levels in the organization; therefore, firms working to be successful should share the success with their employees. Other studies of Giancola (2010) report that compensation experts have said that job positions are already considered obsolete, forcing the development of new compensation systems. The same Carpenter & Sanders (2002) suggest that if payment is linked to performance probably a change can happen in the employees' attitude by letting them produce more quality and quantity.

The variable compensation is related to effectiveness in different ways: Danish & Usman (2010) say, adequate rewards program is a key factor to maintain the high level commitment in workers (Andrew & Kent, 2007). Madhani (2009) in his paper wrote that payment is a strong communicator between an organization and its employees, and the success or failure of the payment system can affect the overall success of the organization. Ghazzawi & Smith (2009) made an annual salary survey; nearly 600 respondents said payment is the most important motivator in relation to job satisfaction.

4. Employee Effectiveness.

Several definitions were found about the dependent variable: employee effectiveness. Locke (1968) identified it as the intentions of subjects performing tasks. Treated as the objectives or goals that people seek to do their jobs are determiners of the effort level used in their performance. The formal goals increase the performance level of workers in relation to situations where no clear objectives are offered. If the goals are specific, the motivating behavior will be effective. To achieve effectiveness in organizations employee effectiveness is required in order to fulfill its goals and objectives.

There are several models that can be useful in achieving effectiveness; one of them is the goal model in which effectiveness is measured based on the compliance results (Henri, 2004); and the model systems emphasizes the ways to get results (Yuchtman & Seashore, 1967), inter alia. Continuing with the definitions of the construct, Cascio (2007) mentions that performance refers to the way an employee accomplishes the assigned tasks. Kuvaas & Dysvik (2009) establish it as a measure of the degree in which a goal is achieved. Locke & Latham (2002) define the performance by the way an employee achieves assigned tasks (meeting goals) and based on the clarity of them (Locke, 1968).

In this study, the variable employee effectiveness is defined as the degree in which goals and objectives are achieved. It is measured from the attitudinal and performance results.

a) Attitudinal results are positive or negative evaluations that employees have about certain aspects of their work environment; they could be measured by the following parameters: job satisfaction, organizational commitment and teamwork.

- **Job satisfaction.** Shahzad, Hussain, Bashir, Chishti & Nasir (2011), consider job satisfaction as the difference between what the employee thinks he deserves and what actually he gets for his work. This is an attitude response of the employee towards the organization affecting the decision to stay with the company and the effort amount applied in job performance (Ghazzawi & Smith, 2009). Sarwar & Khalid (2011) define it as the pleasurable emotional state of an employee considering its obligations, its supervisor and organization. Regarding the relationship of this variable, researchers Malik, Danish & Usman (2010) found that when workers feel that their effort and performance are recognized and valued, it increases their level of motivation and commitment.
- **Organizational commitment.** Giancola (2010) states that Towers Watson defines employee engagement as a desire to contribute to the company's success. Blau & Boal (1987) see the organizational commitment as the attitude towards work of an employee who sympathizes with the goals and the company. Zhu, Douglas & Avolio (2004) said it is the involvement of individuals with the company. Ismail et al. (2011) separate the organizational commitment into three factors: acceptance of established goals; willingness to exert effort on behalf of the company; strong motivation to stay in it. Referring to the relationship of the variable commitment, Siders, George & Dharwadkar (2001) analyzed that the employees committed to their superiors have a better performance than the less committed. Taplin & Winterton (2007) indicate that leadership style has a direct impact on employee engagement. Bycio, Hackett & Allen (1995) found that transformational leadership could have an impact on workers results to make them feel more engaged.

- **Teamwork.** Campbell (2010) defines performance management as a process that involves its employees as part of the team to improve effectiveness in organizations. To Hoyos, Restrepo & Estrada (2005) training and motivating programs should be implemented as drivers of permanent change in people, encouraging teamwork as a constant to achieve planned results. A study of human resources trends conducted by AON Consulting (2002) shows results that are of interest to this study. They relate to the new personnel profile that it is requiring: greater emphasis on productivity and teamwork.

b) **Performance results** are employees' behaviors evaluated by how well they manage tasks, considered as the achievement measure of a goal, through clarity and fulfillment of goals that strengthen job performance.

- **Approach based on goals clarity.** It is measured by defining clear and precise goals that facilitate understanding (Locke & Latham, 2002).
- **Approach based on goals achievement.** Locke (1968) states that the goals must be clear, specific, challenging, measurable, achievable, and there should be always some sort of feedback. The goals and tactical plans, that is to say plans designed to support the implementation of strategic plans are those responsible of the mid-level managers, such as functional unit heads. Tactical plans focus on the activities that must be performed to meet the strategic plan established by senior management (Chiavenato, 2001). These authors comment that employee participation in setting goals can cause favorable attitudes, such as satisfaction, performance improvement and commitment.

Considering the reviewed literature and gaps of knowledge mentioned in this article, the following graphical model is proposed ("Fig. 1"):

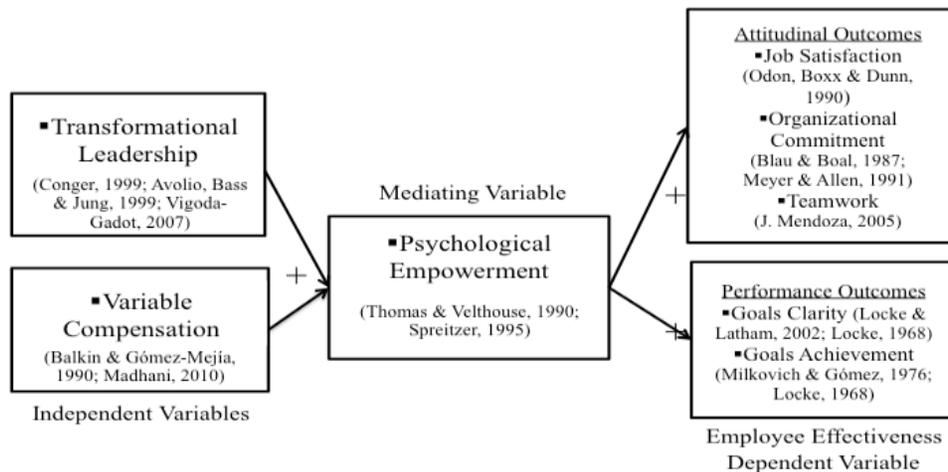


FIGURE 1: PROPOSED GRAPHICAL MODEL AND THE HYPOTHESIS

Source: Developed by the author

Methods

The population of this study is represented by the total employees working in Mexican companies located in Nuevo León state of Mexico, which is 548,587 employees classified by economic activity; 48% manufacturing industry, including construction; and 16% business services, transportation and education (IMSS, 2012), see "Tab. 1". The population corresponds to the mid-level employees according to experts representing 18% of all employees in an organization. The sample size was estimated in 136 respondents using the formula for calculating the sample size (Rositas and Mendoza, 2009).

TABLE 1: EMPLOYEES OF COMPANIES IN NUEVO LEÓN, BY ECONOMIC ACTIVITY

Economic Activity	Employees	%
Manufacturing Industry	235,177	42.9
Electric Industry	2,264	0.4
Business Services	65,966	12.0
Transportation	9,583	1.7
Commerce	37,006	6.8
Construction	28,512	5.2
Education	13,929	2.5
Others	156,150	28.5
Total	548,587	100.0

Source: Developed by the author

A questionnaire was constructed with 65 questions (items) in 8 parts using a Likert scale of 7 levels; from strongly disagree to strongly agree (Sanchez, 1998). The Cronbach's alpha of each variable by items model was calculated in order to establish the reliability of the instrument. The results shown in “Tab. 2” are above 0.70, which is the minimum level considered acceptable for the Cronbach's alpha.

TABLE 2: VARIABLES RELIABILITY ANALYSIS (CRONBACH’S ALPHA)

Transformational Leadership	.924	.927
Variable Compensation	.938	.938
Psychological Empowerment	.877	.883
Attitudinal Results	.840	.874
Performance Results	.824	.841

Source: Developed by the author

Results

The Measurement Model (Outer Model)

The results of the analysis carried out are in “Tab. 3”, applying the algorithm software using the SmartPLS (Ringle, Wende & Will, 2005), it generates the average variance extracted (AVE) and composite reliability applicable to the reflective indicators (Chin, 1998). The measurement model recommends eliminating reflective indicators with smaller loads than 0.50, by doing this it allows increasing reliability without affecting the validity taking into account the criterion of Chin (1998) suggesting that the indicators must have a minimum of 0.50. Churchill (1979) recommends to eliminate reflective indicators if their charges are lower than 0.40. This happens without neglecting the fact that there are at least 3 indicators per variable (Chin, 1998; Churchill, 1979) therefore, six indicators were chosen in the development of the instrument.

TABLE 3: RESULTS FROM THE MEASUREMENT ANALYSIS OF THE ITEMS MODEL

Block	AVE	Composite Reliability
--------------	------------	------------------------------

Transformational Leadership	0.671928	0.924510
Variable Compensation	0.513482	0.892877
Psychological Empowerment	0.453293	0.932711
Attitudinal Results	0.501215	0.927502
Performance Results	0.535615	0.899172

Source: Developed by the author

The variable that contributes the most is transformational leadership with 67.19% (Tab. 3). The AVE is an indicator of reliability, a value of 0.50 or greater indicates a sufficient degree of convergent validity, which means the latent variable explains more than half of the variance of its indicators (Hair, Ringle, & Sarstedt, 2011). The analysis result shows the AVE is above the acceptable 0.50 meaning 53.51% of the variance of the indicators that form the latent variable (Chin, 1998).

Independently, psychological empowerment does not exceed this percentage by reflecting a limitation in the measurement. Additionally, we have internal consistency reliability measured with composite reliability that exceeds the value of 0.70 in all variables considered as acceptable.

Discriminant validity refers to two conceptually different concepts. They must be sufficiently different to show when the capacity of each latent variable explain their manifest variables greater than the correlations between the latent variable and the others. To measure discriminant validity in the technique of structural equation modeling, there are two criteria by Fornell and Larcker (1981) cited in Henseler et al. (2009):

a) The Fornell-Larcker criterion postulates that a latent variable shares more variance with its indicators than with any other latent variable; this means that the AVE of each variable must be greater than its squared correlation with other latent variable to test, if the criterion meets. The diagonal line of “Tab. 4” show the square root of AVE values for each of the constructs is shown. This criterion is meeting as Hulland (1999) suggests.

TABLE 4: CORRELATED LATENT VARIABLES

Variable	VC	PE	TL	AO	PO
Variable Compensation VC	0.716577				
Psychological Empowerment PE	0.177666	0.673270			
Transformational Leadership TL	0.044435	0.409460	0.819712		
Attitudinal Results AR	-0.030513	0.645883	0.541613	0.707965	
Performance Results PR	0.172602	0.517111	0.513917	0.612622	0.731857

Source: Developed by the author.

b) Cross-Loadings criterion refers that the loading of each indicator should be greater with its own variable than with any other variables in the model (Chin, 1998). The criterion was fulfilled.

The Structural Model (Inner Model)

The SmartPLS 2.0 (Ringle et al., 2005) method consists of an iterative process to estimate weights producing components of the latent variable model. In “Fig. 2” the betas of relationships and the value of R² are estimated for each of the variables. The R² represents the explanation of the independent variables on the dependent variable.

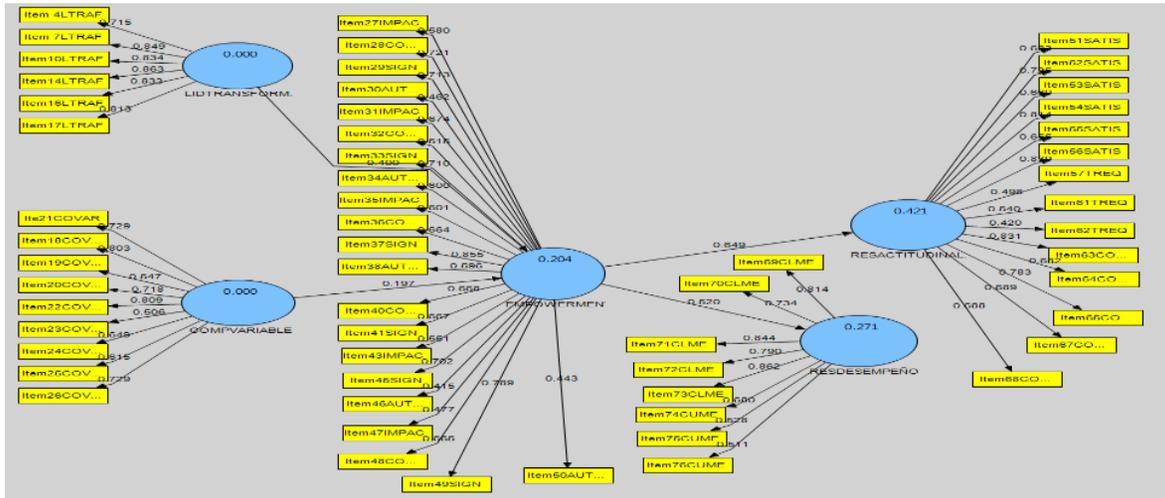


FIG. 2: STRUCTURAL EQUATION MODELS ALGORITHM (SMARTPLS 2.0)

Source: Developed by the author.

“Fig. 2” shows that the structural model the R^2 estimated average of 0.30 (Tab. 5) so the model has a relatively moderate explanation of how the independent variables explain the dependent variable confirmed in the article by Hair, Ringle, & Sarstedt (2011). They stated that R^2 values for endogenous latent variables are equivalent to moderate values between 0.33 and 0.19. The authors mention that endogenous latent variables explained by one or two exogenous variables moderate values are accepted.

TABLE 5: R^2 RESULTS

Block	R^2
Psychological Empowerment	0.204
Attitudinal Results	0.421
Performance Results	0.271
Average	0.30

Source: Developed by the author.

Simulation analysis (bootstrapping) of the structural equation model (SmartPLS 2.0) was performed, as this model does not assume that data is normally distributed, applying nonparametric bootstrapping involves repeated random samples replacing the original sample, thus to obtain the standard error for the hypothesis test. In addition the value of the t student (p value) that helps measure the significance of the relationships is calculated (“Tab. 6”). Moreover, the individual path coefficients from the structural equation model can be understood as standardized betas. Those betas which are not significant or have an opposite sign to the direction of the hypothesis are not supported while those with significant values empirically support the proposed cause and effect. The results of the structural model show standardized betas, t student values and significance (“Tab. 6”).

TABLE 6: STRUCTURAL ANALYSIS OVERCOMES

Paths	<i>B</i>	<i>t student</i>	<i>p value (sig.)</i>	
Transformational Leadership – Psychological Empowerment	.400	5.469452	***	accepted
Variable Compensation - Psychological Empowerment	.197	0.889336	Not significant	rejected
Psychological Empowerment – Attitudinal Results	.649	13.02127	***	accepted
Psychological Empowerment – Performance Results	.520	8.441043	***	accepted

p*<.05 **p*<.001

Source: Developed by the author.

For the purpose of this study PLS technique (Partial Least Square) was selected to test the research hypothesis. The analysis was conducted exploring the structural equation model using the SmartPLS 2.0 software developed by Ringle et al. (2005), presented in “Fig. 2”. In this analysis of measurements, existing validity of the constructs for the above reliability indicators can be seen (McLean & Gray, 1998). Also, it confirms the hypothesis relationships are significant as shown in “Tab. 6”, except for the relationship between variable compensation and psychological empowerment:

- Hypothesis 1, there is positive relationship between transformational leadership and psychological empowerment variables; the results of the model estimated ($b = .400$, $p < .001$).
- Hypothesis 2, there is a positive relationship between the variable compensation and psychological empowerment, with estimated result ($b = .197$, $p = n. s.$).
- Hypothesis 3, positive relationship between psychological empowerment variables with employee effectiveness through attitudinal results with estimated result ($b = .649$, $p < .001$) and
- Hypothesis 4 is presented with the performance results ($b = .520$, $p < .001$). Moreover, the values of *t student* (*p value*) that exceed the critical limit of 2.0 can be considered statistically significant (Chin, 1998).

The expectations of the objectives and contributions of this study is that the model has a predictive behavior of the endogenous construct employee effectiveness in two results: attitudinal and performance. CV Red measurement of a given endogenous latent construct should show higher values at 0.00 and in this study are greater than 0.00 confirming the predictive relevance of this research model (*Q2*).

Discussion

The results show that the research question is answered and the objective was met. Most hypothesis are supported (hypothesis 1, 3 and 4), except hypothesis 2 which found no support. These results are confirmed by research Avolio, Zhu, Koh & Batia (2004), which demonstrated that employees empowered by a transformational leadership, are more likely to respond with higher levels of commitment to their organizations. Ismail et al., (2011) also confirm psychological empowerment (PE) as a mediating variable between transformational leadership and organizational commitment, which is part of the model of this research on the attitudinal results. The PE is positively associated with the mid-level employee effectiveness through attitudinal results (hypothesis 3) and performance results (hypothesis 4). Regarding Hypothesis 2, there is not a positive relationship between the variable compensation and the PE. This hypothesis is rejected although several authors ensure that the variable compensation (VC) has a positive and significant impact in both job satisfaction, and productivity, and even appearing as a predictor of performance variable (Vlachos, 2008).

Rodriguez & Castillo (2009) state that wages respond strongly to productivity. The rejection of hypothesis 2 could arise from different reasons; among them could be the lack of adequate understanding of the concept by the participant mid-level employees. Another reason may be that the present investigation is aimed at large companies

that commonly meet the objectives; therefore, employees safely receive this compensation. A third reason may be that Mexican people prefer the security of a fixed salary, where it does not matter whether or not the goals are met, they have insured incomes, and do not pay attention to the variable compensation.

Conclusions

From an academic perspective, the hypotheses proposed by the model have been supported. The fact that the relationship of leadership with the PE shows a positive relationship reinforces the importance of studying this relationship in the Mexican context. Moreover, the relationship PE with VC was no significant, showing that the VC is not recognized as relevant by Mexican middle level employees to their work effectiveness. This research was made in context of Mexican mid-level employees as theoretical documented contribution within the fourth block of Whetten's (1989) theory development (who, where and when).

The relationship between VC and PE was rejected in this study. Although, several authors found the variable compensation has a positive and significant impact on workers performance, job satisfaction (attitudinal outcome) and productivity on a study made in Pakistan banks (Malik, Danish & Usman, 2010). In Vlachos (2008) empirical analysis on food manufacturing business in Greece, it was also found the variable compensation being a significant predictor of variable performance. According to these results, the managers in large organizations in Mexican context can promote transformational leadership as the key factor to generate psychological empowerment, or impact positive beliefs, significance, autonomy and competence in mid-level employees performing their jobs. These findings can be used as a guide to improve leadership style in Mexican organizations (Ismail et al., 2011).

Furthermore, if PE is promoted in organization, it increases the mid-level employee effectiveness in its attitudinal and performance results. Based on the results of mid-level employees working in large industries in the Mexican context, a model is proposed that can be used by Human Capital Directors to create the necessary guidelines to improve the results of employees, and upgrade the effectiveness of leadership in their organizations, among other proposals.

References

- [1] Andrew, D.P.S., & Kent, A. (2007). The impact of perceived leadership behaviors on satisfaction, commitment, and motivation: An expansion of the multidimensional model of leadership. *International Journal of Coaching Science*, 1(1), 35-56.
- [2] AON Consulting (2002). Estudio de tendencias de Recursos Humanos en Colombia. Bogotá, *AON Consulting*.
- [3] Avolio, B.J., Bass, B.M., & Jung, D.I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72, 441-462.
- [4] Avolio, B.J., Zhu, W.; Koh, W., & Bhatia, P. (2004). Transformational leadership and organizational commitment: mediating role of psychological empowerment (PE) and moderating role of structural distance. *Journal of Organizational Behavior*, 25, 951-968.
- [5] Bass, B.M. (1999). Two decades of research and development on transformational leadership. *European Journal of Work & Organizational Psychology*, 8(1), 9-32.
- [6] Bennet, T. (2009). A study of the management leadership style preferred by its subordinates. *Journal of Organizational Culture, Communications and Conflict*, 13(2), 1-25.
- [7] Blau, G.J., & Boal, K.R. (1987). Conceptualizing how job involvement and organizational commitment affect turnover and absenteeism. *Academy of Management Review*, 12(2), 288-300.
- [8] Bycio, P., Hackett, R.D., & Allen, J.S. (1995). Further assessment of Bass's (1985) conceptualization of transactional and transformational leadership. *Journal of Applied Psychology*, 80, 468-478.
- [9] Campbell, J. (2010). Motivation, attitudes, goal setting, performance and interactive effects of pay for performance. (Tesis Doctoral). Recuperada de Proquest Dissertations & Theses.
- [10] Carpenter, M., & Sanders, W.M.G. (2002). Top management team compensation: the missing link between CEO pay and firm performance? *Strategic Management Journal*, 23(4), 367-375.
- [11] Cascio, W. F. (2007). Evidence based management and the marketplace for ideas. *The Academy of Management Journal*, 50(5), 1009-1012.
- [12] Chiavenato, I. (2001). Advances and Challenges in Human Resource Management in the New Millennium. *Public Personnel Management*, 30(1), 17-26.
- [13] Chin, W.W. (1998). The partial least squares approach to structural equation modeling. In: G.A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295-335). Mahwah, NJ: Erlbaum.
- [14] Churchill, G.A. (1979). A paradigm of developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- [15] Conger, J.A., & Kanungo, R.N. (1988). The empowerment process: Integrating theory and practice. *The Academy of Management Review*, 13(3), 471-482.
- Note:** Please contact the author(s) for the full list of references.

**Knowledge transfer & development across entrepreneurial generations:
Evidence from historical family-owned SMEs**

Mariacristina Bonti, mcbonti@ec.unipi.it
Dipartimento di Economia e Management – Università di Pisa

Enrico Cori, e.cori@univpm.it
Dipartimento di Management - Università Politecnica delle Marche

Knowledge transfer & development across entrepreneurial generations: Evidence from historical family-owned SMEs

Abstract

This study aimed at investigating what specific dimensions of the repeated entrepreneurial succession processes can mostly affect the mode of transferring knowledge from one generation to another. Indeed we consider this latter as a critical variable in order to foster the longevity of family SMEs.

With respect to the prevailing literature, we rather propose to extend the state of knowledge on generational transition shifting attention to a number of entrepreneurial generations, for a better understanding of what originates the longevity of the analyzed firms.

We adopt a qualitative approach. A longitudinal analysis has been conducted on six exemplary cases of small-medium sized family firms which are over a hundred years old. They belong to the industrial sector and they are situated in central Italy.

In terms of theoretical contribution, our research contributed at enriching the conceptual framework that can be used when studying the dynamics of long-lived family SMEs.

Keywords: Knowledge transfer, Entrepreneurial generations, Family SMEs

1. Introduction

Studies focusing on entrepreneurial succession within family SMEs generally circumscribe their analysis to a single generational passage. Instead, we have extended our analysis to a sequence of generational transfers, in order to better understand if and how the way the succession processes are managed impacts on the firm longevity.

In our view, a closer link between the entrepreneurial succession processes and the factors of longevity seems necessary to advance the studies on family SMEs. We therefore propose to investigate this relationship by focusing on the processes of knowledge transfer and development that occur during and after the generational shift.

We believe that successfully managing the transitions at the helm of a company is essential in order to favor the continuity of the family-firm relationship and the firm's performance. For this reason, we suggest that the integration between traditional and innovative knowledge and skills (what we call "innovation around tradition") appears to be a distinctive characteristic of long-lived companies and that this integration is affected by the modes of entrepreneurial passages.

We aim to answer the following research questions: how the transfer of knowledge and skills from one generation to another can take place? what specific mode of the entrepreneurial succession process can mostly affect this transfer?

We adopt a qualitative approach, consisting in a longitudinal analysis of multiple cases (six Italian family SMEs which have been in existence for more than a century).

The paper is structured as follows: in §2 we illustrate the theoretical background; in §3 we describe the sample and explain the research design; in §4 we illustrate the findings and we introduce some propositions; lastly, in §5, we state some theoretical and managerial implications; the current limits and the future developments of the research are also outlined.

2. Theoretical framework

The concept of longevity is inherent in the notion of the company as a "financial institution able to continue" (Zappa, 1956), but it takes on particular nuances when it comes to family SMEs becoming one of the main challenges to overcome.

The prospect of a “multigenerational study” was very scarcely supported by the managerial and organizational literature (Lussier, Sonfield, 2010): the search for factors influencing the longevity can be considered a very recent field of study.

Some authors have focused their attention upon company values and upon their influence on the longevity of family companies (Aronoff and Ward, 2000; Koironen, 2002; Le Breton-Miller, 2005; Dyer, 2006; Sharma, Nordqvist, 2008). All these contributions have recognized the existence of a clear and strong link between company values and longevity without, however, identifying which values may be recognized as key factors in this relation.

Apart from specifically conducted analyses, these contributions, as a whole, fail to unequivocally define the concept of longevity and, in any case, they argue that the most important factor in determining the longevity of family business is the way in which the succession planning is managed (Figure 1).

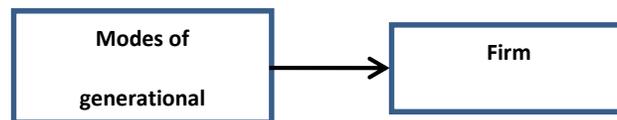


FIG. 1 – RELATIONSHIP EMERGING FROM MAINSTREAM LITERATURE

Connecting the longevity of family businesses to the generational shift leads to somehow tying the first to the success of the second, the risk being to “bring but also circumscribe” the concept of longevity to the ability, on the part of the family, to retain ownership and control of the firm.

We do not entirely agree with this view and the preliminary findings of our research corroborate our hypothesis (Bonti, Cori, 2011). Along the lines of Tàpies and Fernández (2010), we believe that the long-term survival of a family firm depends primarily on its ability to combine tradition and innovation. This means learning “the best” of the past, holding onto those values while continuing to innovate, in order to shape and build the future.

Studies on longevity form a sort of frame, in which we place our research. Our theoretical background consists basically of two strands of organization and management literature, focused respectively on the succession in family-owned SMEs and on knowledge and skills developed within the owning family.

2.1. The succession planning

The relevant literature, that is mainly focused on a single generational passage (in general that between founder and direct successor), points out some recurring features in the process of entrepreneurial succession:

- business succession is not a one-off event, but it can be interpreted as a process that unfolds over quite long period, involving a number of roles and contemplating a series of activities which can be observed simultaneously or in sequence (Cabrera-Suarez et al, 2001: 40);
- the time when the succession process begins is not unequivocally defined, while there is broad consensus on the “passage of handover” as a conclusive moment (Longenecker, Schoen, 1978; Mc Givern, 1978; Ward, 1987);
- it is possible to identify a series of phases: the first generally coincides with an awareness of the problem of entrepreneurial succession, the latter with a definitive disengagement of the outgoing entrepreneur (Gersick et al, 1999; Murray, 2003; Cadieux, 2005, 2007);
- business succession is seen as a slow, continuous, multi-staged, evolutionary process of “mutual role adjustment” (Handler, 1990) between the founding entrepreneur and members of the successive generation;
- a careful preparation and planning of the entrepreneurial transition is considered a critical issue in determining the success of the generational passage (Trow, 1961; McGivern, 1978; Ward, 1987; Handler, Kram, 1998; Lank, 2001).
- there is not a full agreement about the idea of “successful succession”; from time to time it has been associated with the maintenance of property and control in the hands of the founder’s family (Corbetta, 1995:2); with an

effective “taking over” of the company by the designated successor (Dyck et alii, 2002); with the satisfaction of all of the stakeholders (Le Breton-Miller, Miller, Steier, 2004).

A formal approach to managing the multiple aspects of the entrepreneurial succession is encouraged by the diffusion of stage-based models and of their deterministic rationale. However, the normative character of the dominant approach opens the way to a few limitations.

First, the strong emphasis on the preliminary phase highlights signs of weakness. One may argue that an excessively lengthy preliminary phase is not necessarily predictive of a higher degree of efficacy of the succession process. Time periods which are too long could in fact release latent tensions among the aspirants of succession; they could create difficulties for them to adapt to their new roles, and could prolong situations of uncertainty for the moment of, and conditions for, passage.

Further, the supposed relation between thoroughness of preparation and the success of generational exchange does not explain those cases where good results are obtained despite the fact that the passage of “handover” takes place in traumatic and unprepared circumstances caused, for example, by the early death of the founder.

Finally, the succession process itself can be regarded as a path along which “new” problems emerge for family SMEs (Del Bene, 2005). According to this view, the criticality of the phases that follow the “passage of handover” is not inferior to that of the preparatory period, and constitutes a sort of “litmus paper” for the entire process.

By considering repeated generational shifts at the helm of the family firm we try to overcome the limits associated to the study of a single entrepreneurial transition. In particular, such an approach appears to offer, among other things, more consistent elements for supporting or confuting the recurring connection between the importance attributed to planning and the success of the generational passage.

Moreover, such a perspective demands that we first rethink the meaning of the term “success” of the process we are examining.

The perspective we adopt accentuates the instrumental character of the entrepreneurial succession process in accordance with Sharma et alii (1997), while the strengthen of the firm’s ability to survive has to be regarded as the definitive outcome of that process. Thus we define “successful” those generational transition processes at the helm of the company that foster an effective balance between the transfer of the existing stock of knowledge/skills and an aware development of innovative competences. The output of this balanced dosage is what we call “innovation around tradition”.

2.2. Around familiness

The idea that the family firm develops certain idiosyncratic forms of competence linked to the proprietorial structure has gradually widespread. The recognition of such a basic element of competence, defined as “*familiness*” (Habbershon and Williams, 1999; Habbershon, Williams and Macmillan, 2003), may facilitate a unifying perspective when investigating the sources of the competitive advantage in family firms.

Cabrera-Suárez et alii (2001) bring up the concept of *familiness* and among the requirements for an effective transfer of knowledge they identify a period of “intergenerational cohabitation” in which the future entrepreneur can assimilate idiosyncratic forms of competence not otherwise transferable.

To this aim many authors stress the importance of an “early exposure” (Tagiuri, Davis, 1996, Steier, 2001; Schröder, Schmitt-Rodermund, Arnaud, 2011) to the working environment of the family firm.

Without underestimating the importance of these contributions, we cannot fail to highlight some weak points. A first limitation can be found in the excessive emphasis on the transfer of the idiosyncratic knowledge to the next entrepreneurial generation. As a consequence, the choice of particular courses of study from the designated heir, as well as work experience outside the company, are given second place. A second limitation of the studies mentioned at the beginning of this paragraph seems to be associated with the idea, often implied in the literature, that the transfer of knowledge is a matter concerning only the members of the owning family; on the contrary, employees also may present themselves at times as receivers of the historical memory of the company and its tradition (here one may think of cases of traumatic succession).

The perspective of the succession as an opportunity for development in the company appears nevertheless more consistent with actions for “enriching” the stock of knowledge and integrating the competences of the founder

with those brought by the successor. Indeed, one of the factors at the core of company longevity seems to be the ability to develop (through sharing and integration) these diverse nuclei of knowledge, adapting them to the environmental dynamics (Chirico, Salvato, 2008; Chirico, Nordqvist, 2009).

Such orientation implies the definition of a training path for the designated successor in such a way as to balance the acquisition of tacit knowledge set in the *familiness* with explicit awareness, acquired through training, exposure to different cultures and organisational models thanks to experience working in other companies (Chirico, Salvato, 2008). The knowledge gained by the new generations through university courses and other training programmes, not necessarily aligned with the distinctive competence of the company, permit a new way of interpreting the transferred experience. The knowledge acquired through work experience in other companies also allows for development of a more detached perspective concerning the way of running the company and the introduction of changes and innovations.

Along with Goto (2010: 3), according to whom “professional work experiences outside of the family provides opportunities”, Sardeshmukh and Corbett (2011: 115) also point out that training paths outside the company provide the successor with a “greater exposure to newer ideas” and pursuits of “more novel initiatives”. Therefore the external development of a successor may positively influence his ability to lead the firm in a new direction.

In agreement with them, we hypothesize that the internal development of the designated successor is important in order to deepen the industry- and firm-specific knowledge, to strengthen identification to the firm, to share the core family traditions, while external development opens the successor’s mind towards innovation.

The weaknesses of the studies examined, taken together, lead us to question any causal relationship between modes of generational passage and longevity of the family firm; they also lead us to consider the possibility of introducing some intermediate variables. The purpose is to enrich the reflections on “how to manage” the generational transfer by adding other ones, related to “what to transfer”.

3. Methodology, sample and data collection

Subject to the results of the theoretical analysis and with specific regard to the limitations identified in mainstream literature, the main aim of this research is to understand how competences have been transferred along repeated generational shifts and how entrepreneurial succession processes were managed. We carried out longitudinal analysis of six exemplary cases, following a cross-case interpretation (Yin, 1984; Alvesson, Sköldbberg, 2000). The sample consists of six long-lived family SMEs, located in central Italy.

Coherently with our research framework, we focused on family-owned SMEs, that have maintained until now the proprietorial control in the hands of the founder’s family and that have been established more than 100 years ago.

The selection of firms to be included in this study followed two main criteria: homogeneity of the sample and availability of the current entrepreneurs.

The choice of circumscribing the geographical area was dictated by the willingness to consider a territory as being sufficiently homogeneous from the point of view of business culture and paths of industrial development.

The companies in the sample were selected in such a way as to represent the main traditional industries of the Italian economy and the regions of central Italy (see Table 1).

Given the broadness of the trade market this sample presents a high level of heterogeneity. One of the businesses (Varnelli) appears on a prevalently “beyond-regional” market; with a limited share destined for exportation. For the other two (Cangioli, Pelino) the principle market of reference is the Italian national one; even with a significant weight in export. Finally for the remaining three (Giusto Manetti Battiloro, Sannini Impruneta, and L’Erma di Bretschneider) the international market absorbs a prevalent share in their turnover.

The size of firms ranges from 10 to 250 employees. In particular three companies fit in the 11-50 class of employees bracket, two to the 51-100 bracket and one to the 101-250 bracket. Three of them are placed in the turnover category of between 5 and 10 million euros; two in the €20-30 million group and one above €30 million.

All the companies are still owned by the founder's family and have maintained their own product specialisation to the present. For all these reasons, they offer interesting food for thought, thus resulting in comparison leading slowly to highlighting their similarities and differences.

The case study research was carried out by using both primary and secondary data.

Primary data were collected through direct observation and semi-structured face-to face interviews with the entrepreneurs. The interviews (two for each company) were conducted between the end of 2008 and the beginning of 2011. Each interview lasted between two and three hours. All interviews were conjointly carried out by the two co-authors. The entrepreneur was left free to reconstruct the family firm's history in such a way that a very complete picture was given, as regards: strategic-competitive position of the company, paths of productive and commercial development, knowledge/skills developed over time, meaningful organizational dynamics, the entrepreneurs who made a mark on the evolutionary events of the company. Due to the inductive nature of the study, such topics have been discussed in any sort of order and unplanned topics emerged during the discussions.

TABLE 1 – The sample

firm	Industry	geographical region	firm size (employees)	sales (ml €)	year of establishment	number of generations
Confetti Pelino	confectionery	Abruzzo	11-50	> 30	1783	7
Giusto Manetti Battiloro	gold-beating	Toscana	101-250	20-30	1820	6
Lanificio Cangioli 1859	clothing-textile	Toscana	51-100	20-30	1859	5
Distilleria Varnelli	alcoholic beverages	Marche	11-50	5-10	1868	4
Sannini Impruneta	fired bricks	Toscana	51-100	5-10	1910	4
L'Erma di Bretschneider	publishing	Lazio	11-50	5-10	1896	3

Between the first and second interview, additional and secondary information were collected through company websites and internal documents provided by the firms.

The second interview, conducted by using a semi-structured questionnaire, was aimed at focusing upon the dynamics and characteristics of repeated generational passages at the helm of the company. The entrepreneurs were asked to reconstruct the features of the repeated processes of entrepreneurial succession, to highlight the link between these processes and the dynamics of competence held to be the basis for the company's competitive edge, and to assess the degree of innovativeness of the skills passed to the next generation. On the whole, the interviews have allowed us to reconstruct 23 generational passages.

4. Findings

The longitudinal analysis of the six cases allowed us to gain some evidences about two major issues concerning the entrepreneurial succession process. We try/want to identify:

- a) some possible "logics" of transferring knowledge and skills from one generation to another;
- b) some specific mode of the entrepreneurial succession process that can mostly affect the way of knowledge/skill transfer and development from one generation to another.

Results from the qualitative data analysis are presented below.

4.1 Modes of intergenerational knowledge transfer

We got some meaningful evidences concerning the training paths for the entrepreneurs who have succeeded at the helm of the company, and knowledge and skills developed as a result of those paths. We asked our correspondents to indicate: the nature of the training paths, the distance between the competences provided by these training courses and those which at that time were considered essential to sustain the firm's competitive advantage; eventual experience in

other companies not belonging to the family; and finally the traditional or innovative nature of knowledge brought by the successor at the moment of taking the lead of the company.

First, all of the firms in the sample showed a marked orientation towards balancing tradition and innovation along an extended horizon, also in periods far back in the past. This orientation appears to be a recurring feature, especially in the last few generations, reinforcing the results that have emerged from other studies (Giaretta, 2004; Tàpies and Fernández, 2010). The analysed cases, albeit with different tones and degrees of intensity, show a clear willingness at innovating “around the tradition” by the family-owned SMEs. Innovation generally concerns the introduction of managerial and organizational practices, the development of support activities, or the outsourcing of those stages of the production processes that the firm’s top management do not consider necessary to carry out.

Secondly, the analysis of the six case studies leads us to the identification of four logical ways of transferring competences from one generation to another: integral, selective, incomplete, and lacking thereof.

Integral transfer refers to those intergenerational passages in which the stock of knowledge previously acquired and embedded in the operational routines and in the work practices remains fully utilisable after the succession. It represents an ideal condition and indicates the willingness and possibility of maximising intergenerational transfer of knowledge. *Selective transfer* refers to an aware and intentional process in which, though having conditions that would render it an integral transfer, prior knowledge and capacities are filtered by the entrepreneur in charge or/and the incumbent. *Incomplete transfer* refers to situations in which the stock of knowledge accumulated remains only partially available to the generation taking over, in a totally involuntary manner, despite the generation which takes over knowing its utility. Finally, *lacking transfer* evokes situations where the process of entrepreneurial succession takes place over time and in modes that make transfer of the knowledge gained by previous generations almost impossible.

In their respective paths of development all the companies in the sample point out at least two of the elements mentioned above. *Integral transfer* seems to be a characteristic of the first generational passage. Consistently with the emphasis on the environmental dynamics and aspects of complexity connected to company management (Padroni, 2007), *selective transfer* is continuously present in the last generational passage and in two cases during the last two alternations of the head of the company. Lastly, modalities of *lacking* and *incomplete transfer* recur much more seldom, without nevertheless definitively affecting the continuity of the business.

Furthermore, a much deeper insight leads us to identify a preferable way of transferring competences over entrepreneurial generations. While integral transfer appears to be associated with absolute continuity for the management of a company, where the successor is seen as a “custodian” of the company’s tradition, selective transfer is generally correlated to the “grafting” of innovative competence from the successor.

We therefore have recognized *selective transfer* as being the more suitable way to pursue “innovation around tradition” over time. Indeed the assessment and the subsequent selection of what is believed to give rise to the firm competitive edge can be considered a clear signal of the willingness to isolate and preserve former characteristics of products and manufacturing processes only if they generate added value. These traditions will then be integrated with some kind of innovation, resulted from new fields of competence.

Consequently, selective transfer can be regarded as the output of a generational shift that is able to guarantee the firm’s ability to survive. In our sample, selective transfer is continuously present in the last generational passage and in some cases during the last two succession processes. Finally, the analysis allow us to formulate the following proposition:

PROPOSITION 1 – *Selective transfer* of the firm’s stock of knowledge and skills can foster the firm longevity more than other transfer modes.

4.2 Modalities of entrepreneurial succession process

Some other evidence emerge about the degree of preparation/planning of the entrepreneurial succession. We asked the entrepreneurs to describe the degree of preparation for each generational passage in terms of: choice of the successor; planning of an educational path for him; planning of a period of intergenerational cohabitation; shared managerial responsibility during possible cohabitation.

Crossing the answers concerning the dynamics of competence and the characteristics of the process of the succession at the helm of the company we can observe a variety of situations (Figure 2). The degree of preparation of the entrepreneurial succession was “measured” along a continuum, ranging from the complete absence of preparation (not even the choice of the successor) to a carefully planned process (even joint decision-making), depending on the occurring of the above mentioned events.

The data we collected and processed show that when preparation for succession is lacking, it is very difficult to observe a complete transfer of knowledge; while when succession is carefully prepared the risk of “lacking” or incomplete transfer is heightened.

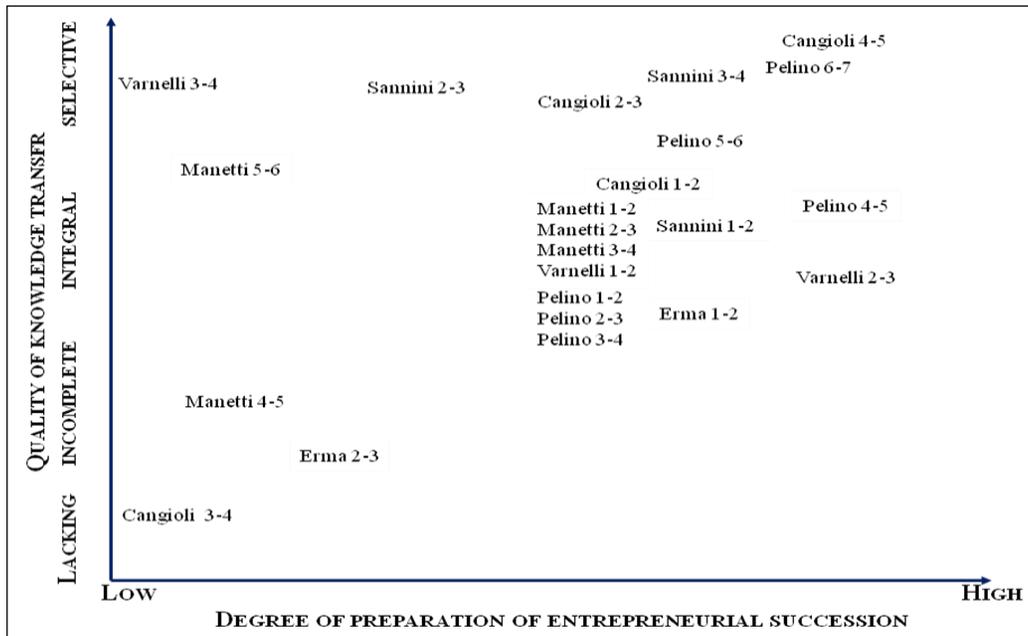


FIGURE 2: Positioning of the firms of the sample

Beyond this observation, (which would be taken for granted) a variegated scenario emerges. Integral transfer appears to be favoured by prepared succession. However, this does not necessarily mean that firms maintain the *status quo*, since transfer of knowledge is often balanced by the input of innovative competence from the successor. The contribution of skills doesn't seem to be affected much by the period of intergenerational co-habitation. It appears that a high degree of preparation influences the selective mode of knowledge transfer hardly at all, this case resorting to equal measures with or without preparation.

In the light of the present observations, the degree of preparation/planning of the entrepreneurial succession shows to have a limited impact on the choice of selecting knowledge and skills to be handed down to the next generation. The decision to “filter” available knowledge and retain only a part of it did not appear to be conditioned by the degree of preparation/planning.

In our view, this seems sufficient argument for rejecting the existence of a *best way* of conducting processes of entrepreneurial succession, identified as one with a lengthy and very thorough preparatory phase.

Supported by these findings, we suggest to introduce an additional variable to the relationship between the modes of generational passage and the ability of the firm to survive, affirmed by mainstream literature (Figure 3). This variable is represented by the mode of knowledge transfer from one generation to another, in order to pursue a balance between traditional and innovative distinctive competence.

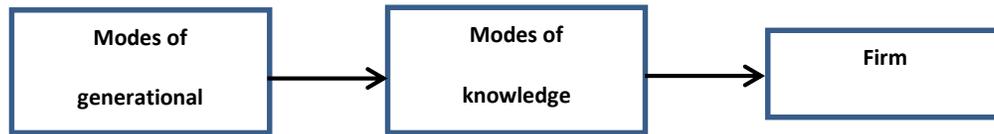


FIGURE 3 - Knowledge transfer as an intermediate variable

The early steps of our study did not shed light on the relationship between modes of entrepreneurial succession process and the pursuit of a balance between competences. It was not clear what conditions make the process of selection/retention/integration of competences easier and more effective. This led us to formulate the following proposition:

PROPOSITION 2 – *The relationship between ways of managing the entrepreneurial succession process and the ability of the firm to survive (firm longevity) is mediated by the output of the process of knowledge transfer from one generation to another.*

In order to gain a deeper understanding of what can foster a reasoned and aware process aimed at a balanced integration between “old” and “new” fields of knowledge we made a distinction between the “procedural” dimensions of the succession process (planning degree, length of the whole process, length of cohabitation) from the “substantive” dimensions (external vs. internal/external educational path, firm-oriented vs. differentiated educational path, cohabitation vs. outside work experience).

We collected such detailed information in the second interview to our informants. In particular we asked them to indicate, for each generational passage: the nature of the training path of the designated successor, the measure of how far such training was from the competence, believed, up to that time, to be a necessary source of competitive advantage; any work experience in other companies not belonging to the family.

As regards the nature of the training, entrepreneurs were asked to indicate the prevalence of school and university curricula or in-company training.

As regards instead the “distance” of knowledge and skills acquired during the training period from those already held by the company, we asked the interviewees to indicate the kind of high school and university attended (humanistic vs. technical/scientific, which technical field); this served to assess the tendency to enlarge or deepen the stock of competences held by the company at that time.

Finally, among outside experiences we considered both work contracts and internships from other companies. These were considered not only as possible chances to observe different operational approaches/practices, but also as an opportunity for “cultural contamination” from the incumbent successor.

We also asked to specify if the above mentioned features of the training paths could be considered the results of autonomous choices made by the incumbent entrepreneur or addressed by the previous generation.

We therefore propose a further enrichment of the conceptual framework. Whereas literature generally assumes consideration of the way in which the entrepreneurial succession process is managed as a sole variable, we separately consider the “procedural” from the “substantive” dimension, since we presume these latter have a significant impact on the knowledge transfer process and on the pursuit of a balanced orientation to tradition and innovation (Figure 4).

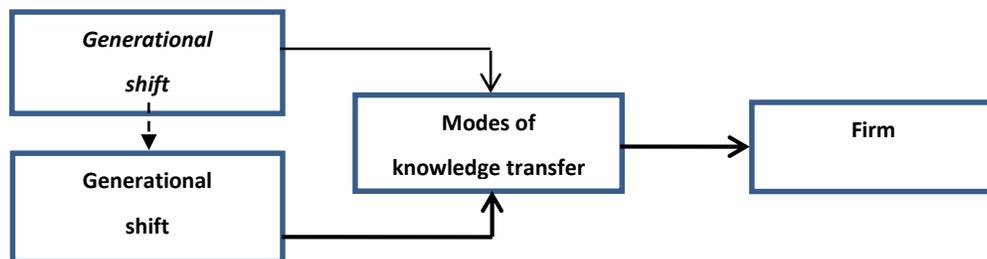


FIGURE 4 - Distinction between procedural and substantive items of the generational passage

We then focused our analysis on the impact of substantive items of the generational passage on the process of knowledge transfer from the outgoing generation to the ingoing one.

Data analysis indicate that generational passages leading to a selective transfer of knowledge are characterized by the occurrence of external or balanced educational paths for the successor, by a different orientation of the training program with respect to the firm's traditional competences, finally by the presence of work experience outside the family firm.

Consistent with Sardeshmukh and Corbett (2011), we find that non specific training and experience, developed through external paths, can provide successors with the ability to grasp different concepts, models, practices and the opportunity to catch /develop new ideas and trend.

Indeed, out of nine generational transitions of type "selective transfer", one featuring all three traits mentioned above, six show two traits, and two show one trait.

On the contrary, if we analyze generational transitions of the "integral transfer" type, only two out of nine show a balanced educational path (school/academic vs. in-company training), while there is no clear evidence that such training has been focused on skills away from those held by the company¹. Rather they show the presence exclusively or overwhelmingly of in-company training and the complete absence of outside work experience.

In summary, the analysis of the substantive dimensions of the generational passages highlights that certain characters of the training path of the successor can affect the way in which knowledge is transferred from one generation to another, and ultimately on the ability of the family firm to balance tradition and innovation.

The analysis of data obtained in this later stage of the research leads us to formulate the following two propositions:

PROPOSITION 3 - *External training path and/or differentiated training path and/or outside work experience are positively correlated to the adoption of a selective mode of knowledge transfer during a generational passage.*

PROPOSITION 4 - *Internal training path and/or training path coherent with the distinctive competences of the firm are negatively correlated to the adoption of a selective mode of knowledge transfer during a generational passage.*

5. Conclusions

This study sheds light on two major issues concerning the entrepreneurial succession process within the family SMEs. On the one hand we investigated and collected some meaningful insights about the "logics" of transferring knowledge and skills from one generation to another. On the other hand we investigated the relationships between some features of the repeated processes of entrepreneurial succession and the way of transferring and developing knowledge/skills, as well as how these connections may influence the longevity of the firm.

As regards the first aspect, the firms that have been investigated show a clear trend in pursuing a conscious integration between traditional and innovative competences over entrepreneurial generations; this means that innovative behaviours does not affect knowledge and skills that allowed the former success of the firm.

The longitudinal analysis of the repeated entrepreneurial passages has made it possible to identify four ways of transferring competences from one generation to another. Moreover it suggested us to propose the distinction between procedural and substantive dimensions of the succession process, in order to make clearer what really affects the modes of knowledge transfer.

Our research contributes to the theoretical advancement by proposing a more articulated frame of the relationships that can be observed along the entrepreneurial succession process within the family SMEs. We propose to consider the modes of transferring knowledge and skills during the generational shift as an *intermediate variable* in the relationship between the processes of entrepreneurial succession and the firm's longevity.

In terms of contribution to managerial practices, the outcomes of our analysis suggest to overcome the strictly prescriptive and sequential approaches to the preparation of the entrepreneurial succession. They also suggest to consider the opportunity of "contaminations" with fields of competence far from the firm's original ones. Furthermore, they can help entrepreneurs to pay special attention to those issues that seem to have the most significant impact on strengthening the firm's ability to survive and successfully compete.

As regards the limitations of our study, some of them could be overcome in later phases; among these, we mention the small size of the sample and some of its features, and the possibility of biases due to the perceptions of the interviewed managers. These prepossessions might relate to the description of the succession process in which those managers have been involved and to possible conflicts with other family members or branches. A limitation that is hard to consider surmountable refers to the undetermined reliability of some information concerning the early entrepreneurial generations.

Further steps of our research, in addition to trying to overcome some of the abovementioned limitations, may follow two different directions. On the one hand other possible relationships between the variables that have been included in the conceptual framework should be investigated. In particular, we believe it is important to explore the link between procedural and substantive items of the generational passage (e.g. if and how temporal and relational dimensions impact on the content of the incumbent successor's learning path). On the other hand, a quantitative analysis of a large sample of family SMEs, would really help to test our propositions which have so far emerged from the study of a limited number of firms.

References

Contact author for the list of references

End Notes

¹ We purposely do not take into account generational passages characterized by “incomplete” or “lacking” transfer since these modes are not the result of conscious choices but are suffered by the firm.

Leadership expectations ranked by different personalities

Tiina Brandt, Tiina.Brandt@uva.fi

Piia Edinger, Piia.Edinger@uva.fi

University of Vaasa, Finland

Leadership expectations ranked by different personalities

Abstract

The purpose of this study is to examine, to what degree do different personalities expect different kind of leadership. Several results were found. For example, people with extraverted, intuitive and feeling preferences wanted to see transformational behaviors even more so than the people with opposite preference pairs. All personality preferences would rather have a transactional or authoritative leader than a passive or non-leader. But sensing followers were more inclined to have an authoritarian leader than intuitive ones, and introverted followers were slightly more comfortable with laissez-faire style behaviors than extraverted.

The results implicate that personality is related to different leadership expectations. There were statistically significant results in all preference-pairs. It is important to pay attention on the individualistic needs of different personalities in leadership training programs. Leaders' and followers' relationships are crucial and unnecessary disappointments should be avoided.

Key words: Personality, expectations, transformational and transactional leadership, laissez-faire and management by exception

Introduction

Leadership exists during the relationship between follower and the leader, and it is impacted by mutual interaction. Plenty of studies have concentrated on the qualities of the leaders, and how leadership impacts on followers, but the role of the follower and their uniqueness have interested surprisingly only very few researchers. The importance of the effects of follower characteristics on the preferred leadership style cannot be overestimated. Knowing what kind of wishes followers have for leadership can help leaders to improve their understanding of different individuals and develop their leadership skills. According to Schyns et al. (2008) organizations should address the expectations followers have towards their leaders, because it could be one way to avoid disappointments in this relationship.

It has been noted that some personalities use more transformational leadership than others (eg. Brandt and Laiho, 2013; Carroll, 2010; Hautala, 2005). Additionally, there are some studies about the follower characteristics and the individual differences on the perception of transformational leadership (Brandt and Laiho, 2013; Hautala, 2005). Some studies indicate that wishes for different kind of leadership behavior can vary individually (Hautala, 2007). However, as far as we know, there is no research on followers' personality and its relation to wishes for leadership in transformational leadership context. Thus, this study concentrates on the different personalities' preferred leadership style in transformational leadership context. The current study uses the Myers-Briggs Type Indicator (MBTI) as a determinant of personality.

Background theories

Transformational leadership

Each individual has their build in beliefs of what kind of person is an effective or a good leader; implicit leadership theory investigates which traits separates leaders from non-leaders according to different individuals (Epitropaki et al. 2013; Derue et al. 2011). These mental models and leadership preferences are formed early and have been found to be affected for example by culture (House et al. 2004), personality (Hautala 2005; 2008), and sex (Brandt and Laiho 2013). More often researchers focus on explicit leadership behaviors and moreover looking into what kind of outcomes they might have (See e.g. Wang et al. 2011; Waldman and Yammarino 1999; De Jong and Den Hartog 2007; Littrell and Valentin, 2005).

Since the time of Burns' seminal research (1978) who first categorized leadership behaviors, several researchers have studied and defined Transformational leadership (TF-leadership) (Bass 1985;; Kouzes and Posner 1988) and transactional leadership (Bass 1985; Lowe et al. 1996) and operationalized the concepts (e.g. Bass and

Avolio 1990; Kouzes and Posner 1988; Roush 1992, Edwards and Gill 2012). These constructs have been viewed polar (Burns 1978) and complimentary (Bass 1985). Common elements in definitions of TF-leadership are visioning, challenging, consideration, and being an example (Bass 1985; Kouzes and Posner 1988). Behaviors of transformational leadership inspire the followers to move beyond their self-interest and increase motivation and moral (Burns 1978; Bass 1985; House 1977; as in Rahn, 2010) and the behaviors should assist organizations to change (Derue et al. 2011). Transactional leaders make the tasks clear and reward accordingly, they also actively make corrective actions to avoid anticipated problems (Antonakis et al. 2003; Derue 2011;). Common elements of transactional leadership are contingent reward and (active) management by exception. Contingent reward refers to specification of employees' goals, assessment of fulfilling and rewarding them. Active management by exception entails more involved leader who intervenes and corrects, if employee is not following the agreed standards. (Antonakis et al. 2003; Den Hartog et al. 1997; Vaccaro et al. 2010) In passive management by exception leaders get involved reactively, after the problems occurred and it correlates with non-leading laissez-faire leadership, in which leader chooses to avoid taking any actions and does not act authoritatively, avoids decision making and taking supervisory responsibility (Antonakis et al. 2003; Den Hartog et al. 1997).

The solid position of TF-leadership in research is due to it being connected to several positive outcomes regarding both follower effects and outcomes on organizational level. These include improved productivity, reduced employee turnover rates, greater job satisfaction and motivation; all of which are more strongly associated with TF-leadership than with more transactional or non-transformational leadership (e.g. Clover 1990; Deluga 1992; Judge and Piccolo 2004; Marshall et al., 1992; Masi and Cooke 2000; Medley and Larochelle 1995; Sparks and Schenk 2001). Lately, studies of TF-leadership have also focused on areas of well-being (Arnold et al., 2007), ethical sides (Bass and Steidlmeier 1999), psychological capital (Nielsen et al. 2009), cultural intelligence (Keung and Rockinson-Szapkiw 2013), and technological innovation (Chen et al., 2012).

Myers-Briggs Type Indicator

The Myers-Briggs Type Indicator (MBTI) used in this study, offers a dynamic approach to personality. The MBTI has been widely used in the field of leadership and organizations (e.g., Gallén, 2009; Storr and Trenchard, 2010). MBTI is based on Jung's (1921/1971) work on psychological types. The MBTI reveals a person's habitual preference for an orientation of energy (extraversion/introversion), a process of perception (sensing/intuition), a decision-making function (thinking/feeling) and an attitude to life (judging/perceiving).

Extraverted (E) people direct energy mainly toward the outer world of people and objects. They are energized by interaction and activity. Introverted (I) people direct energy mainly toward the inner world of experiences and ideas. They are energized by reflection and solitude. Sensing (S) people focus mainly on what can be perceived by the five senses. They are naturally interested in concrete and verifiable information about what is or what has been. Intuitive (N) people focus mainly on perceiving patterns and interrelationships. They tend to be interested in flashes of insight, abstractions, theory, and notions of what could be. Intuitive people prefer to work in bursts and wait for inspiration. Thinking (T) people tend to base their conclusions on logical analysis with a focus on objectivity and detachment. They prefer to focus on the work at hand, and do not spend much time on getting to know others and building relationships. Feeling (F) people tend to base their conclusions on personal or social values with a focus on understanding and harmony. At work, they often want to spend time getting to know others. Judging (J) people prefer decisiveness and closure. They like to live in an orderly and structured fashion. Perceiving (P) people prefer flexibility and spontaneity. They tend to be adaptable and often design flexible or innovative approaches to work (Demarest, 1997; Myers and Myers, 1990).

Several studies have concentrated on transformational leaders' personalities, using different personality measures. Most studies of leaders' self-ratings using the MBTI find that extraversion, intuition, and perceiving preferences are more related to TF leadership than their polar opposites: introversion, sensing and judging (Church and Waclawski, 1998; Hautala, 2006). Some do not include extraversion (Van Eron and Burke, 1992) in the list, and some exclude both extraversion and intuition (Brown and Reilly, 2009). The results on subordinates' appraisals of their leaders' behavior are less clear cut. Some studies did not find any relationships (Brown and Reilly, 2009), some supported similar results to those revealed by the leaders' self-ratings (Church and Waclawski, 1998; Roush, 1992), and some produced wholly opposite results indicating that sensing (Hautala, 2006; Roush and Atwater,

1992) and feeling preferences (Atwater and Yammarino, 1993; Roush and Atwater, 1992) were strongly associated with TF leadership.

Earlier one study (Hautala, 2007) has studied earlier leadership expectations of different personality types, and there were several results. Concerning expectations to leadership Clearly Set Goals were especially important to judging types. Clearly Defined Areas and Instructions were important to sensing types. Introverted types did prefer Continuous Directing. Giving Trust was favored by extraverted people. Feeling types favour Support and Directing and Empathy and Humanity. The most significant differences were in the Giving Information characteristic when perceiving types were overrepresented in wanting information from their leaders.

Methodology

The well-established questionnaires and methods were chosen as part of the research. Thus, the study is inductive by nature. The data collection took place after creating the questionnaire in September 2012, and in 2013. The data was analyzed in winter of 2014.

The data was gathered among altogether 578 Finnish university students and working professionals. The age varied between 18 and 62, and the mean age of the respondents was 24. 52,6% were male. Only 362 respondents had reported their work experience in years, amongst those the mean was 6 years. But the rest of the respondents who had not marked their work experience were likely to have very little or no work experience. Taking part in this study was voluntary. The students were explained for which purposes the study is conducted and how the results are handled. It was also possible to complete the questionnaire without taking part in this study, as in the questionnaire form there was a choice box whether the student allows his/hers answers to be included in the study. The members of the research group were present when the questionnaires were completed, and the students were given as much time as they needed in order to complete the questionnaire. The questionnaire forms were handled with care and caution, and the answers were confidential. Only the members of the research group had access to the forms and were able to see the answers.

The respondents filled a questionnaire based on Bass' MLQ, Kouzes and Posner's LPI and transformational leadership literature overall. The questionnaire featured Transformational Leadership (TF), Transactional Leadership (including Passive and Active Management by Exception), and Laissez-Faire and Authoritative leadership style. The respondents were asked to grade different statements based on different leadership style on a scale of 1-9, nine being the most desired leadership style and one the least preferred.

There were two components which described transformational leadership: Inspirational motivation and Intellectual stimulation/challenging. The Inspirational motivation was measured with 4 items such as "Supervisor encourages me", Cronbach's alpha was 0.813. The Intellectual stimulation was described with four items, e.g. "Supervisor encourages me to develop ideas", the alpha of this dimension was 0.712.

Transactional leadership was measured with Rewarding $\alpha=.56$ and Management by exception-active $\alpha=.38$ (see e.g. Derue et al., 2011). Rewarding was measured with three items, such as "Supervisor notices my accomplishments" and Management by exception-active was measured with five items, e.g. "Supervisor gives help if subordinates have already worked with problem".

Finally, passive leadership was measured with Management by exception-passive, Laissez-faire and Authoritarian Management. Authoritarian leadership could also be classified with task-orientated leadership behaviors with transactional leadership (Derue et al. 2011). These three behaviors were investigated separately. In management by exception-passive, factor analyses loaded on four items, e.g.: "Supervisor finds mistakes" $\alpha=.54$. Five questions loaded to Laissez-faire "Supervisor avoids making decisions" $\alpha=.76$, and finally authoritarian management was measured with three items, e.g. "Supervisor makes decisions" $\alpha=.54$.

Concerning MBTI the validity has been proved at the four preferences level, as well as at the type level. Internal consistency is high when both the Split-Half and Coefficient Alpha Reliabilities are measured. Internal consistency and construct validity have been proved by several researchers. (See e.g. Gardner and Martinko, 1996; Myers et al., 1998.) Gender, age, membership of a minority ethnic group, and developmental level are just some of the topics that have been researched when testing the reliability of the MBTI (see Myers et al., 1998). In this study,

the Finnish research 'F-version' was used. The construct validity and reliability of this form have been proved during a validation process lasting several years (see e.g. Järnlström, 2000). Järnlström (2000) reported an internal consistency (Pearson's correlation coefficients) of 0.65 to 0.76 and (Cronbach's coefficient alpha) of 0.79 to 0.86.

Results

Overall, transformational leadership was the most expected leadership behavior; median of all respondents was 7.06. Transactional leadership was preferred also (Mdn=5.67). Authoritative leadership behavior (Mdn=3.33) was preferred over laissez-faire (Mdn=2.60) and management by exception-passive (Mdn=2.00). Yet there were many differences between the personality preferences. The sample was divided according to personality as follows: extraversion (64 %, n=353) - introversion (36 %, n=201), sensing (60 %, n=333) – intuition (40 %, n=221), thinking (59 %, n=327) – feeling (41%, n=227), judging (55 %, n=307) – perceiving (45 %, n=247).

Transformational leadership

A Mann-Whitney U test was run to determine if there were differences in transformational leadership score between extraverted and introverted. Distributions of the transformational leadership scores for extraverted and introverted were similar, as assessed by visual inspection. Median transformational leadership was statistically significantly higher in extraverted (7.13) than in introverted (6.88), $U = 15498$, $z = 2.237$, $p = .025$, $r = 0.12$. There were no statistically significant differences in the scores of inspirational motivation between extraverted (7.25) and introverted (7.25) respondents $U = 13925$, $z = .450$, $p = .653$, but intellectual stimulation/challenging factor yielded some differences. Median intellectual stimulation/challenging score was statistically significantly higher in extraverted (7.25) than in introverted (7.00), $U = 15570$, $z = 2.322$, $p = .020$, $r = 0.13$. The effect sizes were calculated with the formula below and interpreted as suggested by Boduszek (2011) $r = \frac{z}{\sqrt{N}}$.

Next we will view the results of differences in transformational leadership score between sensing and intuitive preferences. Distributions of the transformational leadership scores for sensing and intuitive were similar, as assessed by visual inspection. Median transformational leadership was statistically significantly higher in intuitive (7.38) than in sensing (6.88), $U = 10094$, $z = -4.367$, $p = .000$, $r = 0.24$. There were no statistically significant differences in the scores of inspirational motivation between sensing (7.25) and intuitive (7.25) respondents $U = 13218$, $p = .380$, but intellectual stimulation/challenging factor yielded some differences. Median intellectual stimulation/challenging score was statistically significantly higher in intuitive (7.50) than in sensing (6.75), $z = -4.259$, $U = 10195$, $p = .000$, $r = 0.23$.

Third preference pair's, thinking – feeling, results are reported next. Distributions of the transformational leadership scores for thinking and feeling were similar, as assessed by visual inspection. Median transformational leadership was statistically significantly higher in feeling (7.13) than in thinking (7.00), $U = 12173$, $z = -2.259$, $p = .024$, $r = 0.12$. Median inspirational motivation score was statistically significantly higher in feeling (7.50) than in thinking (7.25), $U = 12014$, $z = -2.438$, $p = .015$, $r = 0.13$. There were no statistically significant differences in the scores of intellectual stimulation/challenging, between feeling (7.25) and thinking (7.00), $U = 13628$, $p = .518$.

In the last preference pair, there were no statistically significant differences in the scores of overall transformational leadership between judging (7.06) and perceiving (7.13), $U = 13231$, $p = .263$. Also the motivation factor was equally important for preferences, judging (7.38) and perceiving (7.25), $U = 14769$, $p = .558$. Median intellectual stimulation/challenging score was statistically significantly higher in perceiving (7.25) than in judging (7.00), $U = 12464$, $z = -1.971$, $p = .049$, $r = 0.11$.

To summarize, no matter what the personality preferences are, transformational leadership behaviors are expected rather than other behaviors. Still especially extraverted, intuitive, feeling and to some degree perceiving individuals expect their leaders to display transformational behavior when compared introverted, sensing, thinking, and judging.

Transactional leadership

A Mann-Whitney U test was run to determine if there were differences in transactional leadership score between different personality preferences. There were no statistically significant differences in the scores of transactional leadership between extraverted (5.67) and introverted (5.50) respondents $U = 12492, p = .237$. Also intuition (5.50) and sensing (5.67) does not appear to influence the score of transactional leadership $U = 15273, p = .155$. No statistical difference were found between thinking (5.50) and feeling (5.67), $U = 15079, p = .334$. Neither was there differences between judging (5.58) and perceiving (5.50), $U = 14694, p = .615$.

Unlike the found relationship in transformational leadership behavior expectations, personality does not play a role in transactional leadership expectations. The median is between 5.50 and 5.67 in all personality preferences; hence it is also expected from leaders.

Passive-management by exception

Three different leadership behaviors were included in the rankings in passive (or negative) leadership: passive-management by exception, laissez-faire, and authoritarian leadership. We will first view the Passive-management by exception results. A Mann-Whitney U test was run to determine if there were differences in scores between extraverted (2.00) and introverted (2.00), but there were not, $U = 13865, p = .702$.

When comparing the scores of intuition (2.00) and sensing (2.25) a statistical difference was found, $U = 16227, z = 2.498, p = .012, r = 0.13$. Distributions of the Passive-management by exception scores for intuition and sensing were similar, as assessed by visual inspection. Both preferences do not expect this of their leaders since the scores are so low, but sensing preference is more comfortable with these behaviors than intuitive.

The thinking – feeling preferences did not differ in their scores regarding Passive-management by exception both median score being 2.00, $U = 14069, p = .876$.

Finally, median Passive-management by exception was statistically significantly higher in perceiving (2.25) than in judging (2.00), $U = 12375, z = -2.078, p = .038, r = 0.11$, indicating that judging are less comfortable with these reactive behaviors.

Laissez-faire

A Mann-Whitney U test was run to determine if there were differences in laissez-faire score between extraverted and introverted. Distributions of the scores for extraverted and introverted were similar, as assessed by visual inspection. Median was nearly statistically significantly higher in introverted (2.80) than in extraverted (2.60), $U = 11936, z = -1.817, p = .069$, but the effect size indicates ($r = .10$) there might be a reason to investigate this further.

Median for both, intuition and sensing was the same 2.60. There was no statistical difference, $U = 14040, p = .967$. Also the thinking and feeling had a median 2.60, $U = 11936, p = .206$. There were no statistically significant differences between perceiving and judging either, $Mdn = 2.60, U = 15531, p = .152$. Thus on the significant level of .05 there were no differences between personality preferences in the laissez-faire leadership expectations or more appropriately acceptance

Authoritarian leadership

Lastly, authoritarian leadership expectation results are presented here. Both, extraverted and introverted had a median of 3.33, thus there were no statistically significant differences, $U = 14103, p = .514$. Median of authoritarian leadership was statistically significantly higher in sensing (3.67) than in intuition (3.00), $U = 17614, z = 4.047, p = .000, r = 0.22$. Thus sensing people expect leaders to behave in authoritative ways, when intuitive do not. Feeling and thinking preference is not relevant either when concerning authoritarian scores, both had a 3.33 median, $U = 14286, p = .933$. Perceiving had a bit lower score (3.00) than judging (3.33) but there was no statistically significant difference, $U = 15222, p = .276$.

As suggested by Coe (2002) unstandardized median differences were used because of the lower reliability of some of the outcome measures. The results are displayed below in Table 1. As can be seen of the effect sizes, the strength of the association is small.

TABLE 1: RESULTS

	Extra- version Mdn n=220	Intro- version Mdn n=123	r	Sig.	Sensing Mdn n=209	Intuition Mdn n=134	r	Sig.	Thinking Mdn n=203	Feeling Mdn n=140	r	Sig.	Judging Mdn n=202	Perceiving Mdn n=141	r	Sig.
Inspirational motivation (factor of TF- leadership)	7.25	7.25	.02	.653	7.25	7.25	.05	.380	7.25	7.50	.13	.015	7.38	7.25	.03	.558
Intellectual stimulation (factor of TF- leadership)	7.25	7.00	.13	.020	6.75	7.50	.23	.000	7.00	7.25	.03	.518	7.00	7.25	.11	.049
Transformational leadership	7.13	6.88	.12	.025	6.88	7.38	.24	.000	7.00	7.13	.12	.024	7.06	7.13	.03	.263
Transactional leadership	5.67	5.50	.6	.237	5.67	5.50	.08	.155	5.50	5.67	.05	.334	5.58	5.50	.03	.615
Authoritarian leadership	3.33	3.33	.04	.514	3.67	3.00	.22	.000	3.33	3.33	.05	.933	3.33	3.00	.06	.276
Laissez Faire	2.60	2.80	.10	.069	2.60	2.60	.02	.967	2.60	2.60	.07	.206	2.60	2.60	.08	.152
Management by Exception- passive	2.00	2.00	.02	.702	2.25	2.00	.13	.012	2.00	2.00	.01	.876	2.00	2.25	.11	.038

Conclusions

Results indicated that transformational leadership was the most expected leadership behavior and management by exception-passive the least hoped leadership style. Neither authoritarian nor laissez faire styles were preferred leadership styles, but both were more accepted than passive management by exception. Three statistically significant results occurred in E/I-dimension.

Extraverted people would like to have more intellectual stimulation and transformational leadership overall. Introverted people were more tolerant toward laissez-faire leadership. These results may be due to introverts more peaceful orientation. They are not as interactive as extraverts thus they do not necessarily demand such active leadership and can accept more passive leadership than extraverts.

The most significant results occurred in S/N dimension. Intellectual stimulation and transformational leadership was hoped more by intuitives than sensing personalities. Authoritarian leadership was clearly more accepted by sensing persons and this tendency was shown also in case of passive management by exception. In Hautala's study (2007) Clearly Defined Areas and Instructions were important to sensing types. It may be that sensing people are more frustrated in laissez-faire kind of "no rules"-leadership than authoritarian kind of leadership who can be maybe too strong and old-fashioned but makes decisions and gives instructions, which behaviors are appreciated by sensing types.

Persons with feeling preference hoped more inspirational motivation and transformational leadership than persons with thinking preference. Feeling personalities appreciate harmony and tend to give positive feedback to

others, and therefore they naturally expect this for themselves too. In Hautala's study (2007) feeling types did favor Support and Directing and Empathy and Humanity, which is in line with this study and feeling –preference's type description. Feeling types are more tender-hearted, more tactful, and more social than thinking types (Myers and Myers, 1990), so it is quite natural for them to prefer their leaders to treat them in a similar way.

Concerning last preference pair, two differences occurred: more spontaneous perceiving types wished more intellectual stimulation than more orderly judging types. Perceiving leaders have tendency to use intellectual stimulation more than judging ones, thus this is also in line with previous studies (Brandt and Laiho, 2013). Passive management by exception was tolerated more by perceiving types, and this may indicate perceiving types' flexible attitude towards passivity. It must be noted that even if those negative kinds of leadership styles were accepted more by other personality types than others, they are still not wished, because median of those were clearly low.

Implications of our results provide more information for human resource development field, especially for management training. Leaders should take personality differences more into account, e.g offer more support, motivation and harmony to feeling personalities than others. Supervisors and HR could arrange for new employees discussions about their wishes about work place and leadership style.

Acknowledgements

We would like to express our gratitude to *Nissi Foundation* and *Jenny and Antti Wihuri Foundation* for supporting this study.

References

- [1] Bass, B. M. & Avolio, B. J. 1990. *Transformational Leadership Development: Manual for the Multifactor Leadership Questionnaire*, Consulting Psychologist Press, Palo Alto, CA.
- [2] Brown, F.W., & Reilly, M.D. (2009). The Myers-Briggs type indicator and transformational leadership. *Journal of Management Development*, 28: 916 – 932.
- [3] Burns, J. M. 1978. *Leadership*, Harper and Row, New York.
- [4] Demarest, L. (1997). *Looking at Type in the Workplace*. Gainesville, FL: Center for Applications of Psychological Type.
- [5] Gallén, T. (1999). Cognitive style and strategic decisions of managers. *Management Decision*, 35(78), 541-551.
- [6] Gardner, W. L., & Martinko, M. J. (1996). Using the Myers-Briggs Type Indicator to study managers: A literature review and research agenda. *Journal of Management*, 22 (1): 45 – 83.
- [7] Hautala, T. 2005. The effects of subordinates' personality on appraisals of transformational leadership, *Journal of Leadership and Organizational Studies*, Vol. 11 No. 4, pp 84-92.
- [8] Hautala, T. M. (2006). The relationship between personality and transformational leadership. *Journal of Management Development*, 25: 777 – 794.
- [9] Hautala, T. M. (2007). Impact of followers' type on their expectations of leaders: An individual consideration in transformational leadership. *Journal of Psychological Type*, 67(4), pp.30-37.
- [10] Jung, C. (1921/1990). *Psychological Types*. London: Routledge & Kegan Paul.
- [11] Järnlström, M. (2000). Personality preferences and career expectations of Finnish business students. *Career Development International*, 5(3), 144-154.
- [12] Kouzes, J. M. & Posner, B. Z. (1988). *The Leadership Challenge*, 6th ed., Jossey-Bass, San Francisco.
- [13] Littrell, R. F. and Valentin, L. N. (2005) Preferred leadership behaviours: exploratory results from Romania, Germany, and the UK, *Journal of Management Development*, 24(5), pp.421 – 442.
- [14] Myers, I., McCaulley, M., Quenk, N. & Hammer, A. (1998). *MBTI Manual: A guide to the development and use of the Myers-Briggs Type Indicator* (3rd Ed.). Palo Alto, CA: Consulting Psychologists Press.
- [15] Myers I. & Myers, P. (1990). *Gifts differing* (13th Ed.). Palo Alto, CA: Consulting Psychologists Press.

Note: “Contact author for the list of references”

The Construction of Knowledge Based in Online Education: A Case Study in a Brazilian Public University

*Aline Santos De Almeida, aline_i9@yahoo.com.br
Maria Conceição Melo Silva Luft, ceica@infonet.com.br
Universidade Federal de Sergipe, Brazil*

*Rafael Fernandes De Mesquita, fernandesrafael@live.com.
Fátima Regina Ney Matos, fneymatos@unifor.br
Universidade de Fortaleza, Brazil*

The Construction of Knowledge Based in Online Education: A Case Study in a Brazilian Public University

Abstract

The present study aimed to identify the perceptions of students, tutors and others involved in teaching and distance learning, on the impacts of the use of information technology and communications at the Federal University of Sergipe, in order to realize the how this use contributes to the construction of knowledge in distance education. The theme gets more space because of its specificity. In terms of its methodology, the study was described as exploratory and descriptive. Questionnaires were applied online and in person with students and distance tutors, and interviews with the ones involved with the direction and coordination of distance learning in Federal University of Sergipe. Through data analysis and perception of the sample, it was concluded that the use of information technology and communication applied in distance education contribute to the construction of knowledge, while stimulating the interaction between those involved in it; however, it was also perceived the need for clarification on this type of education so that the peculiarities of it in relation to mainstream education are identified and problems are solved.

Key words: Information technology and communication; knowledge; distance education.

Introduction

The changes taking place in the world in recent decades require constant improvement and diversified knowledge among the population and generate numerous changes in the educational context in order to adapt the construction of knowledge to the environment and its needs. The knowledge acquired through continuous learning and modern technologies of information and communication becomes a key differentiator and a key part in the development of people and organizations. Thus, the use of information and communication technology (ICT) in the educational context grows considerably, in a great rapidity and globalized form, being related not only to the access and transmission of information, but also to the process of knowledge production and training skills.

Distance Education – DE emerges as a mode of education, which tends to democratize education and learning by making information available to anyone, anytime and anywhere. Moreover, it has been considered an effective way of teaching, at what cost, time and geographical distance can be reduced without jeopardizing the achievement of knowledge.

For the objectives proposed by DE to be met, ICTs act as facilitators in the transfer of information and communication between students, tutors and educational institutions. As stated by Moré, Moritz, Pereira and Melo (2010) to be a proactive process, DE requires constant interaction between all involved, as well as a constant motivation for using the right resources and in an effective way.

In order to keep up with the increasing changes that are happening in the world, including progress towards ICTs, and make democratic forms of access to knowledge, the Federal University of Sergipe (UFS) introduced, in 2006, the Centre for Distance Higher Education (CESAD), through RESOLUTION No. 49/2006/CONSU. With the creation of CESAD, the teaching offered by the university was becoming more comprehensive, contributing to a significant portion of Sergipe population could have access to quality higher education, already known in the UFS classroom level, without the need to move from their municipalities.

Given this scenario, we sought to analyze the perceptions of students, tutors and others involved in the process of distance education (DE) in order to identify characteristics of students who seek to acquire knowledge from that distinctive form of learning, the roles of tutors in the transfer of information and the teaching institution itself, regarding the required adaptation for offering distance education courses and identify how the technologies employed contribute to knowledge building in DE.

Thus, the proposed theme, after this introduction, will be exposed as follows: the second section discusses the historical context in which distance education is embedded; the third section presents the interaction between students, tutors and educational institutions, while fourth displays aspects related to distance constructivism. The

fifth section describes the methodological procedures used and then the results are presented. Finally, in the seventh section the final considerations are listed.

Historical Context of Distance Education

Among the authors who address the background of distance education many differentiate its work on the chronology of events and the number of generations that mark the evolution of distance education. Despite the discrepancies, coincidental information among authors exists in regard to the emergence of distance education, marked by the appearance of the media and the use of these as a means of spreading information and knowledge. For Chaves (1999) writing was the first technology that involved DE: The invention of writing enabled people write down what they previously could only say, and thus allowed the emergence of the first form of distance education: teaching by correspondence. The New Testament epistles (aimed at entire communities) that have clear didactic character are clear examples of DE. Its range, however, was relatively limited - until they were turned into books.

As Moore and Kearsley (2008) said, the evolution of distance education presented so far, five generations. These generations mark its evolution over time according to the technologies used to mediate the interaction between students and teachers and construction of knowledge, through the textual interaction, via correspondence to the virtual interaction with the use of computers and the Internet.

Table 1, based on Moore and Kearsley (2008), displays the evolution of generations of distance education, dates and main characteristics of each one:

TABLE 1: GENERATIONS OF DISTANCE EDUCATION

GENERATION	BEGGINING	CHARACTERISTICS
First	1880	Study by correspondence. Instruction through distance educators, with delivery of printed materials by mail.
Second	1921	Broadcast television and radio. Radio and educational channels. Telecourse.
Third	1970	Open Universities. Universities that used communication technologies to teach adults.
Fourth	1980	Teleconference. Use in groups, unlike the open universities or correspondence courses.
Fifth	1990	Virtual classes. Use of Computers and Internet in education.

According to the information contained in Table 1, it is seen that the history of distance education starts with instructional courses delivered by mail, which characterizes learning by correspondence, where people who had an interest to study, but could not attend classroom courses, could receive instruction by teachers from distance in any environment.

The second generation was marked by the use of new technologies, radio and television, in education, initiating educational programs aired on television and telecourses, mostly for adult education and with little interaction between students and instructors. According to Chaves (1999, p. 6), "the radio allowed the sound (especially the human voice) to be taken to remote locations," but the use of this technology to support distance education did not achieve much success. In contrast, educational television got more successful, both with the use of equipment in classrooms, as the transmission of educational programs both on cable and open television, called telecourse.

The Open University has emerged in the UK as the first national distance education university, increasing the number of students and offering courses through the use of various communication technologies, and then copied in other countries. As Belloni (2006), open universities meet the specific demands of training and offer, in addition to regular courses, large variety of non-formal actions continuing education and training.

As described by Moore and Kearsley (2007), distance education emerged in the United States based on the teleconference, and because it was closer to the traditional teaching, in groups, attracted many educators. The communication by means of satellites updated the conferences, making it possible to broadcast educational programs.

During the fifth generation, the one with the most recent start, the use of computer networks and the Internet for education boost the emergence of virtual classes and promote access to distance education. With personal computers, it became possible to add sounds, images, colors, graphics, tables, among other attractions that facilitated instruction. Educational softwares began to be created as well as networks and computer conferencing in order to connect multiple computers for group instruction and more interaction between teacher and student. "The main advantage of computer instruction is to be able to offer a high quality opportunity for the student to interact with the subject under his/her full control" (MOORE; KEARSLEY, 2007, p. 92).

The emergence of the Internet in the late 90s has enabled a new field to be explored by education. Universities have started using Internet-based programs, in addition to offering online courses, which brought increased visibility to distance education.

For Moore and Kearsley (2007), the use of integrated learning systems allow for the existence of synchronous (those performed simultaneously, in real time, between teachers and students) and asynchronous communications (those in which teachers and students communicate in separate times) on a platform (in the present study, *Moodle*) as well as access to a large number of material on the *web*.

Student-Tutor -Institution Interaction

Distance education has changed and is changing the ways of interaction between students, tutors and the educational institution. Mattar Neto (2008, p. 135) states: "the classroom [...] can be seen as the less conducive place to transmission and generation of knowledge." This information can incite reflection: knowledge can actually be generated and transmitted outside the classroom?

From the point of view of Moore and Kearsley (2008), the basic idea of distance education refers to students and teachers in different locations during all or part of the time in which they learn and teach, depending on technologies to convey information and interact with, being, therefore, the enabling technologies in interaction and knowledge building in distance education. Thus, for the authors knowledge can indeed be built outside of the classroom (in different places), since the interaction between students and tutors happen through technology.

In this new context, students have more autonomy to study, choosing time, place, and time of study within their means and preferences and institutions have become more interdisciplinary, offering courses in various areas in distance, and the figure of the teacher/tutor can be seen from numerous angles, but mostly as a link between the first two and supportive of learning and construction of knowledge by students.

For Moore and Kearsley (2008), the distance learner needs to have different skills for the study and differentiated communication abilities. However, they also need different types of support and aid compared to students in traditional courses, such as learning environments, which unlike the students who attend classroom courses are not always classrooms.

Moore and Kearsley (2008) and Belloni (2006), characterize the student in distance learning courses as an adult, which can be of great importance for the understanding of the distance learner. Among the factors that favor the adoption of distance education for adult instruction, may be cited: control and autonomy in their learning, ability to define what, when, where and how the learning process will happen, greater motivation, interest in learning more about specific issues. According to Moore and Kearsley (2008) the most common reason for adults to do a distance course is "to develop or improve the knowledge necessary for employment" (p. 175).

Leal (2005) comprises the tutor's role as an academic category based on a commitment to training students to think and be able to discuss and develop knowledge, coming from him/her the power to stimulate the construction of knowledge articulated in the virtual space. It is for the tutor to create an environment where students can learn to control, manage, implement and engage with the technologies used, turning information into acquired knowledge.

Mattar Neto (2008) considers the fear that the figure of the teacher to be extinct an important issue in distance education. However, the author states that the figure of the teacher is not being eliminated and it is not losing its place

in education, but has new challenges and new tasks. Lévy (1999, cited by MATTAR NETO, 2008) states that teachers carry out the monitoring and management of learning activities, stimulating, among other things, the exchange of knowledge.

Given the foregoing, it is necessary to realize that the role of the tutor does not exclude the role of the teacher in distance education; they have different and complementary roles. While the teacher prepares the course content and seeks ways of assessing students that promote the construction of knowledge, tutors act as liaisons between teachers and students and the institution, facilitating and enhancing learning, ie, teachers and tutors are distinct characters and should, in theory, work together in building the knowledge in distance.

It is up to the institution, as quoted by Moore and Kearsley (2008), the decision about which courses that will be offered and implementation of these courses, training, monitoring and evaluation of academic and administrative staff, installation and maintenance of libraries, study centers and all technology used to inform students about the courses available and subsequent registration, admission procedures and assessment, among other decisions that can influence and assist in ensuring the success of a distance education program.

The use of various forms of technology, or learning objects, tends to create a new conception of learning through interaction between all that integrate distance education, being of great importance that the educational institutions know how to choose those that are appropriate and that can be readily used by participants of this mode of teaching and learning. It is important to note that the interaction student/tutor can occur either virtually, mediated by suitable information and communication technologies, and in presence, with strong emphasis on tutor availability and support given by him/her to the understanding of content and knowledge generation.

Constructivism in Distance

In the opinion of Todescat and Santos (2006), university is currently promoting advances in various fields, generating social, economic, cultural, environmental and technological changes that impact the development of society, through the flow of information and the creation, transfer and use of knowledge. Thus, it is necessary to find a way to adapt the university to the new economy and new society in constant change, and make it stand as a center of knowledge creation.

Gadotti (2000, p. 9) also states that "school is challenged to change the logic of the construction of knowledge, because learning now occupies our whole lives." This statement emphasizes that the need for continuous learning must exist on the part of educational institutions, media to innovate and change the ways in which knowledge is constructed.

In order to understand constructivism, it is important to know how the information differs from knowledge. To Valente (2008, p. 106), information is "the abstract representation of the facts", while knowledge is "what each individual constructs as product of processing, interpretation, understanding of information, something being built by each one, very unique and impossible to be passed."

Valente (2008) also states that the distinction between information and knowledge suggests different meanings to the concepts of teaching and learning, where learning, according to one interpretation cited by him, relates to constructing knowledge from the processing of information received. Therefore, two pedagogical approaches are up to the educator as they are seen by the authors as complementary views, the transmission of information and assistance in the construction of knowledge by students.

According to Jonassen (1996), traditional conceptions of learning assume that knowledge is an object, something that can be transmitted from teacher to student. In contrast, constructivists believe that "knowledge is a human construction of meanings that seeks to make sense of their world, to explain ideas and new phenomena in terms of existing knowledge" (p. 3). Therefore, for constructivists, knowledge is constructed rather than transmitted; however, it can be shared.

The process of knowledge construction must start from a dissonance between what is understood by the student and what is observed in the environment. Being that knowledge personally constructed, it is personally owned and assigned. Table 2 aims to point out a comparison made between the characteristics of knowledge according to traditional and constructivist beliefs/conceptions.

TABLE 2: CONSTRUCTIVIST BELIEFS CONFRONTED WITH TRADITIONAL ONES

KNOWLEDGE	
Tradicional conception	Constructivist conception
Regardless of experience	Emerges from the experience
Object possessed by learners	Built meaning
Objective, stable, fixed	Subjective, contextual, fluid
First what's elementary, then the applied	Built in action
Reflects the significance of the real world	Reflects personal meaning
Decontextualized	Built on experience
Very simplified, preconditioned schemes, rigid	Complex, flexible, integrated
Replicable	Applicable

Constructivist learning environments can be supported in distance education through a variety of technologies that are capable of improving the communication and integration and support processes of knowledge construction in distance environments, focusing education on the students and their perceptions about what is gained in terms of information, in order to assist the construction of knowledge on the pupils' part.

With that said, knowledge can be built in Distance Education, and the technologies used in the tutor-student interaction have great importance in this process, since it is from them that information that will be processed by the students are passed with the help of tutors, so that knowledge is built.

Methodology

As for its goals, the study in question was classified as exploratory and descriptive. It is exploratory, since the distance can be seen as an issue rarely addressed at the Federal University of Sergipe, in similar studies, but not in that specific context, involving a case study on the proposed topic. It is descriptive, since its purpose, as stated by Gil (2007, p. 42), is "to describe the characteristics of a given population or phenomenon using standard techniques of data collection, such as questionnaires and systematic observation."

A case study allows a broad and detailed knowledge through deep and comprehensive study of one or a few goals, as Gil (2007) explains. Thus a case study was used in order to understand and explain the problem researched in the Federal University of Sergipe.

The research in question is presented in a comprehensive manner, involving students, tutors and educational institution and the perception of each in relation to the construction of knowledge, both issues that can be quantified, as questions requiring interpretation are needed. Therefore, the research in question is defined generally as qualitative and quantitative.

Data were collected through questionnaires with multiple choice and open questions and interviews. Online and printed questionnaires to students and tutors of ODL courses, using two sampling techniques were applied. The first technique used was convenience/accessibility sampling, which according to Malhotra (2001) is left to the interviewer in the selection of the sampling units, due to its easy access, measurement and cooperation, and because

it is less time consuming. And the second, sampling snow-ball, in which, according to the author, a random initial group of respondents is selected and it is prompted to these to indicate others that belong to the same target population type.

The questionnaires were adapted by using *WebIntegrator*, a tool built in Java that facilitates the development of applications for web. After adaptation a pre-test was made and the questionnaires were made available in the online form. Two sample groups were selected for the questionnaires: one of them related to students of distance subjects/courses at the Federal University of Sergipe (UFS), whose population was located around 4400 vacancies offered in 15 centers in CESAD (Table 3); and the other, referring to DE former tutors and tutors in UFS, whose population consisted of 289 tutors.

TABLE 3: UNIVERSE AND SAMPLE

UNIVERSE AND SAMPLE		
	Universe	Answered questionnaires/Sample
Tutors	289	60
Students	4400	153

The sample of students was diverse, encompassing various courses offered in the regional CESAD centers. The distribution of courses by polis in Sergipe is shown in Table 4:

TABLE 4: OFFERING OF COURSES AT THE POLIS

OFFERING OF COURSES AT THE POLIS		
County	Nome of the polo	Courses
Araúá - SE	UAB Polo Joaldo Costa Carvalho - Araúá	Biological Sciences, Physics, Gender and diversity in school, Geography, History, Portuguese Letters, Mathematics, Chemistry.
Areia branca - SE	Presence Support Polo of Areia Branca - UAB	Biological Sciences, Physics, Geography, History, Portuguese Letters, Mathematics, Chemistry.
Brejo grande - SE	Foz do São Francisco Polo - B. Grande/ SE	Biological Sciences, Geography, History, Portuguese Letters, Mathematics, Chemistry.
Carira - SE	Presence Support Polo of Carira	Gender and Diversity in School, Geography, History, Portuguese Letters, Mathematics.
Estância - SE	Senador Julio Cesar Leite Polo	Biological Sciences, Physics, Geography, Health Management, Public Management, Municipal Public Management, History, Portuguese Letters, Mathematics, Chemistry.
Japaratuba - SE	UAB Polo - Japaratuba	Biological Sciences, Physics, Gender and Diversity in School, History, Portuguese Letters, Mathematics, Chemistry.
Lagarto - SE	Presence Support Polo of Lagarto - Colônia Treze	Biological Sciences, History, Mathematics, Chemistry.
Laranjeiras - SE	UAB Polo - Laranjeiras	Public Administration, Biological Sciences, Physics, Geography, Gender and Diversity in Schools, Health Management, Public Management, History, Portuguese Letters, Mathematics, Chemistry.
Nossa Senhora da Glória - SE	UAB Polo - Nossa Senhora da Glória	Biological Sciences, Physics, Geography, History, Portuguese Letters, Mathematics and Chemistry.
Nossa Senhora das Dores - SE	Presence Polo Professora Lucia Santana oliveira	Geography, History, Portuguese Literature, Mathematics.

Poço Verde - SE	UAB Polo - Poço Verde	Biological Sciences, Physics, Geography, History, Portuguese Letters, Mathematics and Chemistry.
Porto da Folha - SE	UAB Polo - Porto da Folha	Biological Sciences, Physics, Geography, History, Portuguese Letters, Mathematics and Chemistry.
Propriá - SE	Pólo Prof Manoel Ferreira Rocha - Propriá	Biological Sciences, Physics, Geography, History, Portuguese Letters, Mathematics and Chemistry.
São Cristóvão - SE	UAB/UFS Presence Support Polo - São Cristóvão	Public Administration, Media In Education
São Domingos - SE	UAB Polo - São Domingos	Biological Sciences, Physics, Geography, History, Portuguese Letters, Mathematics and Chemistry.
* Only approved and current offerings are shown		

Data collection took place in the following: through information provided on the CESAD site 199 emails of former tutors and tutors who work/worked at UFS were collected, where online questionnaires links of tutors and students were sent, asking them to be answer and route the questionnaires to other tutors and DE students, of which 60 responses from tutors and 153 responses from students were obtained.

Another instrument used was the interview, which according to Alves-Mazzotti and Gewandsznajder (2001, p. 168), "allows to deal with complex topics that could hardly be properly investigated through questionnaires, exploring them in depth." For purposes of this study, we formulated two tiered interview scripts and these were applied by two people responsible for distance education in the educational research institution in question – a member of the leadership and a member of coordination – selected due to their performance in CESAD and their availability.

Both virtual and applied in person questionnaires had their answers stored in the web application '*Qadmin*', allowing their tab by using simple statistics. To finalize the analysis of data from the questionnaires, weighted averages, based on the intensity scale shown in Table 5 were used, drawn in base ten.

TABLE 5: RANGE OF INTENSITY

SCALE	AVERAGE	MEANING
1	0,0 a 2,0	Terrible
2	2,1 a 4,0	Bad
3	4,1 a 6,0	Regular
4	6,1 a 8,0	Good
5	8,1 a 10,0	Excelent

Tables and graphs were interpreted, generating quantitative analyzes of both tutors as well as the students. Besides that, the results from the interviews generated qualitative analysis of the perception of the course coordinator and Vice-Principal. The interviews were transcribed and responses were grouped by level of similarity, highlighting the interviewees' statements.

Analysis of Results

In this section the data obtained through the questionnaires and the contents of the interviews will be analyzed and interpreted; for this reason it will be divided into two stages. In the first one, qualitative, answers to interviews will be commented and in the second, quantitative, data obtained from the questionnaires to tutors and students will be analyzed.

Qualitative Analysis

This step addresses issues related to implementation of Distance Education at the Federal University of Sergipe and opinions regarding the organization of CESAD, teachers' interaction, tutors and students in distance learning difficulties, technologies adopted, among others, according to the interviews with people directly related to CESAD, one with a member of the board and another one with a member of coordination.

At the level of direction

The respondent holds the position of deputy director of CESAD, which he has been operating for four years. According to the respondent, distance learning implemented by UFS follows the design parameters of Open University of Brazil (UAB), within which there are gaps to formulate their own strategies. In the case of UFS, "the courses of pedagogical projects follow the same model of the presence teaching system, including the duration and the provision of objects,"; for example, the biannual curriculum of a distance learner is the same as a classroom student.

Regarding his perception of the implementation of Distance Education at the Federal University of Sergipe, the respondent asserts that it was a bold action and makes a chronological approach to the facts prior to joining the UAB project, ranging from the creation of NUCE (Center for Communication and Education) in 1996, through the creation of CEAD (Coordination of Distance Education), in the Department of Education, in 1998, and finally, the creation of the Center for Higher Distance Education, through University Council's Resolution n. 49 in 2006. According to him, "it was a long way, but it already yields good results and new challenges."

According to the deputy director, the main difficulty occurred during deployment of Distance Education at the University was "the inexperience of all parties involved with the process at its beginning", and currently it is considered that all agents are broadening their understanding of the mode and this expansion should provide education with quality to students.

Regarding the institutional aspects of CESAD, the quantities involved in the Distance Education at the time of the interview, ie, in February 2010, were: 101 UFS effective teachers, 289 tutors (202 being Distance Tutors and 87-Person) and over 82 professionals including technical and administrative staff, interns, undergraduate courses, post-graduation scholarship students, assigned technicians from other institutions, CLT and specialized service providers, totaling 472 people in the service of UFS' distance higher education. According to the interviewee, unlike teachers, tutors do not belong to the staff of the University, they undergo a simplified selection process and are hired as fellows without employment contracts and therefore do not receive salaries.

Still on the CESAD aspects of the organization, according to the respondent there is not a limit of students per teacher or course, but a limit of distance tutors, which up to the interview date was 100 students for each tutor, but there was a claim that the amount was reduced. As the provision of training for teachers and tutors, the respondent asserts that teachers receive training from the production of printed educational material, the use of *Moodle* and other media.

Regarding the adaptation of distance education students, in the interviewee's opinion it is a little more demanding when compared to regular classroom education students, since they require greater autonomy in organizing their studies, including compliance with time, and have a greater amount of material to read. Any student who has been a regular student in classroom education can adapt to distance education. What is expected is that they have the capacity to build knowledge, not only to search for information, but also the permanent performance of teachers and tutors is necessary to reinforce what is taught. Regarding the levels of evasion of students, a study was being conducted by CESAD itself, but official figures were not available.

The study tools used to distance education at the University are the class books (printed materials), virtual learning objects and video lessons (teacher and subject presentation), and the CESAD aims to increase the demand for the last two items so that they are standardized. Among the difficulties encountered in this type of education three were categorized as they follow:

- Disbelief in the positive results that can be achieved with the DE - the interviewee highlighted some prejudices that exist, such as distrust in the ability of the internet to form and generate knowledge, and the fear that it may be the end of teaching;
- Structural difficulties - some of national character were emphasized, such as the quality of broadband service;
- Students, teachers and administrators inexperience with DE - the interviewee pointed out how the adaptation challenge students and teachers accustomed to classroom teaching model with teaching relationships in distance.

According to the respondent, in order to strengthen and consolidate the contact between students-teachers-tutors there are plans for the university to organize regular face meetings. Regarding the adoption of technologies (ICT) in the educational environment as a means to promote the construction of knowledge, the respondent states:

There is no technology that by itself contributes to the teaching-learning process. It is the use that teachers and students make of the technology that generates positive results. The black board is a technology, as is chalk and cardboard. If the teacher knows how to use this instrument he will do a good job. The computer, television set, DVD player and internet are not magic wands that like a magic will turn the class better and provide better student learning. If the teacher does not hold control over the technology it will be of no avail.

At the level of coordination

The respondent holds the position of coordinator of the Public Administration course and serves on the University for thirteen years and for two years in CESAD. Regarding the implementation of DE at the University, the respondent was optimistic, since, according to him, "the new teaching method has enabled a layer of society to enhance their education and get a college degree." The respondent also pointed out that one of the difficulties, in his opinion, occurred during deployment: the acceptance by some teachers of the new teaching method.

Regarding its functions, the respondent states that there are differences between management of coordination, ie, the coordinators do not operate in a standardized manner, due to the specificities of each course; in addition, he quoted some, such as: the definition of subjects, monitoring the coordinators of subjects (teachers) and coordinators of mentoring.

Regarding the interaction between students and others involved in the teaching-learning process, the respondent contends that the interaction was not accomplished because of the physical distance itself, but considers communication between CESAD, teachers and tutors as being reasonable.

According to the respondent, the level of adaptation of students in distance is good after the student takes full knowledge of the means, because "the student will have to learn on his/her own, and in a way, knowledge is deeper." In addition, the coordinator says that there are many related DE prejudices, including the non-recognition of distance learners as students of the institution and he cited the lack of knowledge about instruments to be used by the subject coordinator as a failure in the DE mode.

Gathering the responses from the director and coordinator, Table 6 shows the questions of the interviews that were common to both respondents and a level of similarity of answers when it comes to the difficulty in the interaction between the involved, due to existing physical distance and a deeper response, due to the position held by the director when it comes to the inexperience observed in all involved, used with the classroom model.

TABLE 6: COMPARISON BETWEEN INTERVIEWS

	DIRECTOR	COORDINATOR
Implantation	Bold action; Yields good results and new challenges	Enables access to training and improvement of society
Difficulties in DE	Quality of broadband service; Inexperience of all involved	Lack of acceptance by some teachers; Non-recognition of distance learners as students of the institution
Interaction	Lack of adaptation to the pedagogical distance relationships; Actions to tighten and strengthen the contact between students-teachers-tutors	Average communication between teachers and tutors; Difficulty in interacting with students because of the physical distance
Role of ICTs	Teacher with control of the technology	Lack of knowledge of the means that can be used by coordinators

Quantitative Analysis

This step describes quantitative aspects related to perceptions of tutors and students. In relation to tutors, the profile, the functions and activities performed, the existence of performance evaluations, the use of resources of ICT, study

materials, course content and assessments to tutor-student interaction and the level of students' satisfaction were investigated. In relation to the students, the analysis also highlights their profile, followed by evaluation of the course, study materials, ICT resources, student-tutor interaction and satisfaction levels.

Tutors Analysis

Considering the profile of tutors, it was observed that most of the respondents are female (60%), single (67%), their ages range between 26 and 30 years (45%), have other gainful activity (80%), have attended online courses/subjects (47%), attended all high school in public schools (48%), have some form of post-graduation, mainly specialization (37%) or master's degree (37%). Moreover, all of them have a computer (100%) and the vast majority (97%) have Internet access in their homes and access weekly for more than 26 hours (47%), including it as their main source of information on current knowledge.

With regard to the functions and activities performed, it was found that they are trained (98%), receiving training or courses for guidance on the duties performed. It should be noted that the Edict for Selection of Tutors (2010) reported that summoned Candidates must attend the Training Program of CESAD, with dates and locations to be communicated by the Centre. The main activities of the tutors are: correcting assessments (90%), provide help to the student understand the course material (92%), motivate the student so that he/she can gain knowledge autonomously (92%), meet queries of the students (95%) and to stimulate critical reflection of students (83%).

As regards to the existence of performance evaluation of tutors, there is knowledge by the tutors (50%) about conducting a review of their handling performance, and opinions vary widely among tutors, demonstrating a lack of standardization between the procedures adopted. Similarly, 35% claim to have no knowledge about self-assessments required of students, 23% say they are never requested and the others divide opinion between always (10%), often (25%) and rarely (5%), again demonstrating the lack of standardization in procedures or difficulties in the transfer of information.

About the usage of resource information and communication technology, the vast majority of tutors (97%) stated that the materials are provided to students, such as books and handouts, which tend to facilitate the learning process. Regarding problems accessing content, it was found that 7% of the tutors said they always come across as a problem in accessing the platform, 46% responded that there is often a problem to access, while 42% said they rarely encounter some problem to access the content. Among the main problems encountered in accessing online content, the one cited as more frequent (60%) was related to content management tool, followed by problems related to connectivity (30%).

Regarding study materials, most tutors who responded to the survey (52%) state that the materials are always prepared in a clear and appropriate manner in order to facilitate understanding of the content. Furthermore, it was found that, according to the tutors (83%) of the materials used are standardized, according to requirement by the University through CESAD. However, to 43% of the tutors just some of the distance education courses/subjects are completed within the academic calendar, with 28% of the tutors saying they have no knowledge of this fact, 13% say that the courses are not completed on time and 12% claim that most of the courses are completed on time.

According to the tutors, course content or objects are often made available to students at the beginning of the semester (48%), with a significant percentage of claims that such contents are always available (43%) and some (7%) claim that the contents are rarely available at the beginning of the school year. They also consider that the courses/subjects are often completed within the dates specified in the academic calendar (62%). From the viewpoint of the majority of tutors (55%), course programs are often linked to the real needs of the students and, in relation to the feedback given to students about their grades and ratings, opinions are divided as part of them (48%) state that it is always given, other (35%) say that there is often feedback to students. To Kenski (2007), giving feedback is among the skills developed through training provided to tutors of distance courses.

Regarding the evaluations and exams, it was attempted to identify three points: embodiment, types of evaluation, and by whom the correction is made. For the first point, embodiment, 85% of the respondent tutors claim that evaluations are performed by individual students, while 10% say they can range from individual and group evaluations. For the second point, the types of evaluation vary between online and classroom evaluation (58%). Regarding the third point, correction, the results show that 96% of the tutors say the exams are corrected by the tutors, or the correction of exams is regarded as a function of the tutors.

TABLE 7: EVALUATIONS AND EXAMS

VARIABLES	ANSWER	PERCENTAGE
Embodiment	Individually	85%
Types of evaluation	Mixed (online and classroom)	58%
Responsible for correction	Tutor	96%

Regarding the interaction between tutors and students, there is a concordance (93%) that it is encouraged throughout the course, something important as the face communication is infrequent or nonexistent in some courses and tutors consider it satisfactory. Most respondents (68%) said they always solve the doubts of the students. Moreover, it was noticed that tutors (85%) believe there is a motivation for students to consult the Internet as an information source. Regarding the incentive to search in libraries, tutors (74%) stated they encourage and assist students in finding information in libraries. This incentive becomes very important because the content provided requires complement, being the tutors the ones to indicate a theoretical framework to facilitate searches by students.

A relevant data shows that none of the tutors surveyed, according to their perception, considered that students are fully satisfied with distance learning. 65% say that perceive students partially satisfied, 27% perceive a partial dissatisfaction and 5% perceive students totally dissatisfied. When asked about the existence of suggestions, complaints or comments on DE in Federal University of Sergipe, tutors had some suggestions that were listed in Table 8:

TABLE 8: SUGGESTIONS TO DE IN THE PERSPECTIVE OF TUTORS

MANAGEMENT	PHYSICAL STRUCTURE	STUDENTS
Enhance the monitoring of tutors and students	To improve the logistics related to the distribution of material	Offer more training to use the Moodle platform
Improve communication with course coordinators and tutors	Create mobile libraries and labs	Observe basic level of knowledge in computer and internet
Improve payment of tutors	Resolve Moodle system deficiencies	Need to self-guide and self-regulate the learning process
Create public examinations to make tutors permanent employees		Monthly classroom feedback
Solve problems related to application of classroom tests		More contact with teachers and tutors
Optimize administrative organization		Establish more specific guidelines about distance education

To conclude the analysis of the responses of tutors' data, averages relating to the following items were analyzed: feedback on grades and evaluations, course content, preparing materials, encouragement of searches in libraries, training of tutors, student satisfaction, completion of courses, performance evaluation for tutors and self-evaluation for students, as shown in Table 9.

TABLE 9: ITEMS AND THEIR AVERAGES – TUTORS

ITEMS	WEIGHTED AVERAGES
Feedback on grades and evaluations	7,87
Course content	7,78
Preparing materials	7,53
Encouragement of searches in libraries	7,12
Training of tutors	6,89
Student satisfaction	6,52
Completion of courses	6,26
Performance evaluation for tutors	5,17
Self-evaluation for students	4,47
OVERALL AVERAGE	6,62

The obtained overall average was 6.62, a result that shows that the perception of the tutors about the items cited is considered good, according to the intensity scale shown in Table 5 (methodology). Among the items, feedback on grades and evaluations was the one with the highest average, 7.87, also considered good, showing that, for tutors, feedback given to pupils is satisfactory. The lowest average presented was 4.47, referring to self-evaluation of students, which is considered average.

Students Analysis

Regarding the profile of distance education students at UFS, it was found that most respondents are female students (61%), they are between 26 and 30 years old (26%), they are married (45%), work more than 20 hours per week (74%), do not have children (51%), attended the regular/traditional high school (65%) in public schools (59%), within the State of Sergipe (90%) and have complete higher education (65%). It was shown that there is a high level of education, which shows that students should get in Distance Education a complement to studies. Furthermore, the majority (93%) is students of Laranjeiras, São Cristóvão and Estância polos, they have basic and medium knowledge of informatics (81%), with internet access at home (73%) and have a weekly frequency Internet use up to 12 hours (59%). Another important aspect is that most distance education students of the Federal University of Sergipe (75%) previously attended online subjects or courses, including part of them (46%) attended courses/disciplines in the university itself.

In terms of the content presented in class, students consider that they are always (27%), often (37%) or rarely (24%) made available at the beginning of the school year. Moreover, according to the students' level of agreement, the contents learned during the courses are consistent with those presented in the syllabus (77%). Regarding the online content access, 52% of students stated that there is often a problem in access and 15% say that there is always a problem, while 26% believe that there is rarely a problem in access. According to most students (35%), the courses are rarely completed within the academic year, a rate that contrasts with the percentage of students (32%) who claim that the courses are often completed in the period. Another relevant fact is that although 37% of students think the course syllabus is often linked to their needs, 34% indicated that the programs have rarely bond with their real needs.

With regard to the materials used, according to 52% of students surveyed, printed materials are provided during the course, and 31% say they often are provided and 8.5% report that they are rarely provided. Also with respect to materials, it was realized that students consider that not all materials are clear, appropriate and promote the understanding of the course. 36% believe that most materials possess these characteristics, while 33% say that only a few are clear, appropriate and promote the understanding of the course.

In terms of resources for information and communication technology, it was observed that the majority (61%) of the students think that the Moodle tool has friendly design and layout, making it easier to understand. It is worthy to notice that problems in accessing and navigating Moodle tend to cause difficulties in the learning and knowledge construction process, requiring the use of other forms of interaction between tutors and students, in order to enable students to use content management tool correctly or adopt another tool to facilitate accessibility. The majority of respondents considered that the students' tools to support distance education are adequate assistance in understanding the content.

Regarding student-tutor interaction, 39% of respondents stated that students communication often happens, while 37% claimed that there is rarely communication between tutors and students. According to most students respondents (36%), they are rarely given feedback about their grades and exams, and 16% claim to have never received any kind of feedback from tutors regarding their grades and evaluations; however, an equivalent number (30% of students) say they often are given a feedback. According to 47% of students respondents, tutors rarely respond doubts or questions in a timely manner, while for 33% tutors often respond in a timely manner. Moreover, most students (42%) say that replies submitted by tutors are rarely clear and objective, data that shows that students can be harmed by tutors not answering their questions in a timely manner and the lack of clarity and objectivity of the answers they receive. For 43% of students, tutors rarely use techniques that encourage and stimulate learning, while for 28% of the pupils, tutors often use these techniques and 16% say tutors never use techniques accordingly. Furthermore, for 34% of students, tutors rarely motivate the search for information in libraries and/or queries on the internet; for 30% of the students tutors often motivate this search for other sources of information besides the content presented. Regarding the promotion of discussions in Moodle, according to 42% of the students tutors rarely use the tool for this purpose; while 25% say that tutors often engage in discussions with students.

Aspects related to interaction between students and tutors indicate that, despite some contrasts, according to a large number of students, the interaction is rarely encouraged, as shown in Table 10:

TABLE 10: INTERACTION STUDENT-TUTOR

VARIABLE	PERCENTAGE
Communication	37%
Feedback	36%
Asnwers to questions/doubts	47%
Clear and objective answers	42%
Usage of techniques that favor and encourage learning	43%
Motivation to search for additional information	34%

Most students (32%) have no knowledge of any request for self-assessment of their performance, and item that can demonstrate both a deficiency in communication, as a variation in the methods of the tutors.

Regarding the levels of satisfaction in all variables, the students said they were partially satisfied, as it can be seen in Table 11:

TABLE 11: PARTIAL SATISFACTION OF STUDENTS

VARIABLE	PERCENTAGE
Course	61%

Moodle	50%
Relationship with the tutor	58%
Relationship with colleagues	42%
Learning	63%

The observed data show that the students are not completely satisfied with distance education, information that can be highlighted by the finding that students (58%) are not sure whether or not to enroll in other courses or subjects in the distance university, answering 'maybe' to the question, while 26% say they definitely would enroll in other courses/subjects in DE in UFS. In addition, students respondents (50%) indicate they always feel the need of classroom classes to complement the content presented in online class, 24% of students said they often feel this need and only equivalent to 1% said they never feel the need of regular classes as a complement.

When asked about the existence of suggestions, complaints or observations, students made suggestions, some of which are listed in Table 12:

TABLE 12: SUGGESTIONS TO DE IN THE PERSPECTIVE OF STUDENTS

MANAGEMENT	PHYSICAL STRUCTURE	INTERACTION	OTHERS
Greater impairment of coordination	More appropriate classrooms	More contact with tutors in person and in distance	Revision before exams
Frequent contact from CESAD to inform and clarify doubts	Improvements in Moodle platform or training of students	Formation of study groups	Field research
Align the DE academic calendar with the classroom courses	Possibility of using laboratories on weekends		Timely delivery of materials, corrections of exams and activities and the dissemination of grades
			More time between exams

In order to finalize the analysis of data on student responses, weighted averages, based on the intensity scale shown in Table 05 (methodology) were used.

The averages were analyzed regarding the following indicators: the need for classroom classes, coherence of content and teaching plans, satisfaction with colleagues, Moodle, student-tutor communication, support tools, satisfaction with Moodle, the course program and student needs, motivation to search for information, interaction - online communication, interaction - questions, feedback on grades and exams, self-evaluation of students, learning stimuli, discussions with tutor, laboratories, equipment, as shown in Table 13.

TABLE 13: ITEMS AND THEIR AVERAGE – STUDENTS

ITEMS	WEIGHTED AVERAGES
Need for classroom classes	7,9

Coherence of content and teaching plans	7,27
Satisfaction with colleagues	6,19
<i>Moodle</i>	6,06
Student-tutor communication	5,84
Support tools	5,76
Satisfaction with Moodle	5,74
Course program and student needs	5,3
Motivation to search for information	5,18
Interaction - online communication	5,04
Interaction - questions	4,82
Feedback on grades and exams	4,57
Self-evaluation of students	4,57
Learning stimuli	4,16
Discussions with tutor	4,05
Laboratories	3,8
Equipment	3,76
OVERALL AVERAGE	5,29

The obtained overall average was 5.29, which shows that the students' perception regarding the analyzed indicators is considered regular, according to the intensity scale. Among the items, those regarding the need for classroom classes (7.9) and coherence of content and teaching plans (7.27) had the highest average. Therefore, despite the coherence between content and teaching plans, students assert they feel the need of classroom classes. The items "labs" (3.8) and "equipment" (3.76) had the lowest average, ie, the perception of students is considered bad, confirming the inadequacy of the laboratories and equipment of CESAD.

Concluding Remarks

This study sought to identify the perceptions of students, tutors, coordination and direction of the Center for Higher Distance Education (CESAD) regarding the use of new technologies applied in distance education and their contribution to the construction of knowledge in the Federal University of Sergipe. The aim of the study was achieved while with its accomplishment it was possible to identify the profiles of students and tutors of distance learning courses at UFS, the functions performed by the tutors and the lack of standardization in the activities performed, the information and communication technology resources that are employed and the ones in need of settings for their usage, because it was not considered fully satisfactory. Moreover, the satisfaction of students in some aspects and information regarding the implementation of distance education at the university were investigated.

In the view of those responsible for managing and coordinating the implementation of distance education it was a bold action because it is of a deep character, but in general, they seem hopeful about the good results that can be generated by distance education, despite the difficulties and failures encountered. In the view of the students, it was found that even though they believe that DE is still incipient in the University, which has numerous flaws and difficulties, they see themselves as a key part of this teaching modality and require that teaching is geared to their needs, the realize progress and are confident that the improvements that are still needed will come to reality. The tutors perceive the distance mode as something new, a perception that tends to justify the various failures exposed by them and, according to them, will only be resolved with greater educational and administrative organization.

Regarding the features of information and communication technology, according to the tutors there is a standardization of materials provided by the university, since, according to them, these materials are always prepared in a clear and appropriate manner in order to promote understanding of content. In contrast, students consider that not

all materials have these characteristics, but the tools to support distance education are often appropriate. According to responses of tutors and students, it is noticed that in addition to materials available online, printed materials are provided for the students such as books and handouts.

When it comes to the interaction between students and tutors, tutors say that communication is always encouraged during the course, that feedback to students about their grades and evaluations are always given, that they address the questions of the students, and they often take suggestions from students into account. The students' perception makes some contrasting aspects, as these often claim that some communication happens and receive some feedback but only rarely tutors answer questions in a timely manner, provide clear and objective responses, use techniques that stimulate learning, motivate the search for additional information from libraries and/or queries on the Internet and develop discussions on Moodle.

None of the tutors surveyed believe that students are fully satisfied with distance learning, but realize that students are partially satisfied, data that coincide with the opinions of students, who were asked about their satisfaction with the course, the Moodle platform, the relationship with tutors and relationships with colleagues and they claim to be partially satisfied.

The results show the need for improvements by students themselves for greater adaptation in the distance, as by the tutors to increased motivation and learning and monitoring and by the CESAD for greater interaction with others involved in distance education as well as encouraging interaction between tutors and students and among students themselves, adaptation of equipment, materials and platform to students' needs or training for better usage of these resources. Furthermore, the results make it possible to confirm that the information and communication technologies employed for interaction and transmission of information among those involved in distance education have fundamental importance to face barriers created by physical separation of the involved in DE.

However, despite the known importance of these resources, several critical problems in distance education were found, including problems in the interaction and transfer of information, which could be remedied with the proper use of available resources. It is noteworthy that these results deal with a reality of a research institution which may be different from other institutions, thus suggesting the development of other research and comparative studies in order to improve the structure of DE in the view of all involved, mainly its prime target, the students.

Thus, the following suggestions for improvement of distance education for the researched institution and others who face the same problems may be:

- » Conducting preparatory meetings at the beginning of the academic semesters for new students to meet the specificities of this mode of teaching and learning, the platform used, the operation of DE, as well as tutors and peers with whom they will interact during the course/semester.
- » Improvements in accessibility of Moodle and/or provision of training to students and tutors to use all available tools in the virtual environment;
- » More interaction, both in distance and face-to-face, between management, tutors and students, so that problems are identified and resolved, for there to be a monitoring of the performance of students and tutors and that information can be transferred more quickly and efficiently;
- » Best preparation and greater availability of tutors for clarification of questions, so that they are resolved satisfactorily and in a timely manner;
- » Creation of libraries and laboratories, as well as encouragement from tutors for students to obtain external information (internet, libraries, videos, etc.), in addition to materials available, because even if the students are in an autonomous learning process they need motivation to continue their studies;
- » Adoption and standardization of video lessons by teachers or tutors to assist and complement fixing the content covered;
- » On-time delivery of printed materials, dissemination of materials onto the platform, correction of activities and dissemination of grades.

Although the proposed facilities are possible to be accomplished, distance education demands a differentiated student profile, with distinct capabilities to study and interaction skills; it opens space for the tutor, responsible for motivating and creating an environment where the student can, by means of ICT to transform information into knowledge received; so that communication is facilitated, feelings of isolation are reduced, the content addressed is complemented, doubts are resolved and information that will assist in the construction of knowledge is assimilated.

References

- [1] Alves-Mazzotti, A.J. & Gewandsznajder, F. (2001). *O método nas ciências naturais e sociais: pesquisa quantitativa e qualitativa*. São Paulo: Pioneira Thomson Learning.
- [2] Belloni, M.L. (2006). *Educação a Distância*. São Paulo: Autores Associados.
- [2] Chaves, E.O. (1999). Ensino a distância: conceitos básicos. Retrieved from: <http://www.edutecnet.com.br/edconc.htm#Ensino a Distância>
- [1] Gadotti, M. (2000). *Perspectivas atuais da educação*. Porto Alegre, Ed. Artes Médicas.
- [2] Gil, A.C. (2007). *Como elaborar projetos de pesquisa*. São Paulo: Atlas.
- [1] Jonassen, D. (1996). *O uso das novas tecnologias na educação a Distância e a aprendizagem construtivista*. Brasília.
- [1] Kenski, V.M. (2007) *Perfil de tutor de cursos pela Internet do SEBRAE*. Retrieved from: <http://www.biblioteca.sebrae.com.br/bds/bds.nsf/DowContador?OpenAgent&unid=E1BE65B911F65C8C83257278000069F1>
- [1] Leal, R.B. (2005). A Importância do Tutor no Processo de Aprendizagem a Distância. *Revista Iberoamericana de Educación*. Retrieved from: <http://www.rieoei.org/deloslectores/947Barros.PDF>
- [1] Malhotra, N.K. (2001). *Pesquisa de Marketing: Uma orientação Aplicada*. Porto Alegre: Bookman.
- [3] Mattar Neto, J.A. (2005). *Metodologia Científica na Era da Informática*. São Paulo: Saraiva.
- [3] Moore, M.G. & Kearsley, G. (2007) *Educação a Distância: Uma visão Integrada*. São Paulo: Thomson Learning.
- [7] Moore, M.G. & Kearsley, G. (2008) *Educação a Distância: Uma visão Integrada*. São Paulo: Cengage Learning.
- [1] Moré, R.P.O., Moritz, G.O., Pereira, M. F. & Melo, P.A. (2010). Modelo de gestão para educação a distância: o sistema de acompanhamento ao estudante – SAE. *Revista de Administração e Inovação*, 7(2):104-125.
- [1] Todescat, M. & Santos, N. (2006) *Universidade e a EaD na Sociedade do Conhecimento: Contemporaneidade Organizacional*. Retrieved from: <http://www.abed.org.br/seminario2006/pdf/tc038.pdf>
- [6] UFS, Centro de educação superior a distância – CESAD – UFS. Retrieved from: <http://www.cesad.ufs.br/>

Note: Contact the authors for the full list of references.

The use of ICT and its impact on the educational process of teaching.

Araceli Durán-Hernández, araduranh@gmail.com

Dr. Juan Gaytán-Cortés, jgaytan@cucea.udg.mx

Judith Mireya Cornejo-Macías, mireyaceca@yahoo.com.mx

University of Guadalajara, México

The use of ICT and its impact on the educational process of teaching

Abstract

The purpose of this research is to identify the relationship of the competitiveness of teachers in the use of information technologies in the educational process of teaching.

The sample was made up with professors in the academic department of Marketing and International Business on CUCEA, University of Guadalajara.

In the model we use a group of factors which were identified and used in previous researches which were discussed in the theoretical framework of this research. The educational process of teaching was the dependent variable and as independent variables automated knowledge resources, interconnection achieved through ICT tools and diversity in educational process were considered.

The use of the SPSS 20.0 program, allowed us to determine the relationship that independent factors exert in the educational process of teaching.

The investigation emerged from the need to know the impact that the competitiveness of teachers have in the use of ICT in the process of educational instruction, the results were analyzed, plotted and interpreted in order to identify the relationship of the competitiveness of teachers in the use of information technology on the educational process of teaching.

Keywords: Information and Communications Technology (ICT), educational teaching process

Introduction

Nowadays the teacher must constantly strengthen their educational performance considering they live in a society that is evolving day by day with the use of ICT; however, it is paradoxical that some teachers are not competent regarding for the use of ICT.

Teachers not trained in the use of ICT will have a high probability of being marginalized in the progress of the learning-teaching and if that happens, the problem will be profound consequences for educational quality. States that teachers are people with extensive knowledge and experience in the educational process, however some of them lack of outdated knowledge in ICT, becoming therefore an indispensable necessity that the current teaching not only know and use the ICT, but must achieve proficiency to make efficient use of them, surpassing, improving educational performance, reinforcing their knowledge and placing it in a current reality that reinforces their autonomy and critical ability. (Área, 2001).

In this research teachers of the Department of Marketing and International Business from the University Center for Economic and Administrative Sciences will be used as study subject in order to identify their competitiveness in the use of ICT in teaching and learning educational process.

Theoretical Framework

Throughout history, technological advances have changed the societies where there have been implementing different technologies (Cabrero, Lorente and Roman, 2007). There are a lot of researches into the use of ICT once in favor and other in disagreement for the use of it. Some authors state that the uses of ICT condition the didactic potential of the teacher (Weaver, García-Valcárcel and Prada, 2009).

The information and communication technologies are considered all those technological tools and resources used to communicate, create, disseminate, store and manage information (they are abbreviated with the acronym ICT). Communication and information are at the heart of the educational process, consequently the use of ICT in education has a long history. (Blurton, 1999).

In recent years there has been great interest in how computers and the Internet can be used to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings. (Tinio, 2003).

Should not lose sight that the effective integration of ICT into education systems is a complex process that involves not only technology, but also curriculum and pedagogy, instructional preparation, skills of teachers and students, etc.

The courses based on ICT requires elements to monitor student progress in course content and to evaluate the acquisition of knowledge and skills. (Mazza & Dimitrova., 2007).

Education becomes increasingly a problem of access to networks and is sold in "instructional packages" and not in construction projects by sharing and solidarity. The individualizing trends make it more difficult the ICT use by the community, although sometimes enriches existing modes of communication and in many others, tend to replace them. Information is not knowledge and, much less wisdom; transmission of technological knowledge by itself does not solve the difficulties inherent in the process of learning or guarantee the training of citizens. (Sanz, 2006)

The use of ICT supports competitiveness in the field of educational process. ICT as Cabrero, (2006), can provide a teaching and learning environment for students and teachers, achieving competitive results in teaching.

In the new model for Higher Education brings new methodologies, demands and challenges, where the use of ICT is an essential didactic resource in the teaching / learning process. There are many advantages and contributions that digital technologies can have on the world of education today. Cabrero and Gisbert (2005) mention that some areas of human endeavor is the use of ICT to generate controversy.

Cabero (1996) has summarized the most distinctive features of the new technologies in the following traits: intangibility, interactivity, immediacy, innovation, high standards of quality picture and sound, digitization, influence, more about processes, than on products mentioned automation, interconnection and diversity.

The paradigms of new technologies are computer networks. Computers, isolated, offer a lot of possibilities, but increase its functionality connected by several orders of magnitude.

The use of these media can have both advantages and disadvantages and hence the need to try to identify what kind of technologies can be used for educational purposes in view of the skills of teaching with interactivity, innovation, digitalization and automation. Information and Communication technologies (ICT) can contribute to universal access to education, equal education, the practice of teaching and learning quality and the professional development of teachers as the management direction and administration more efficient of the educational system. (UNESCO, 2008).

New technologies (ICT) is essential that teachers are trained to teach new pedagogies and to integrate ICT in the teaching-learning process. So that teachers be evaluated by a process or certified institution granting the validity of knowledge to the teacher, if this is competent.

ICTs can help strengthen and management of democratic and transparent educational planning. Communication technologies can expand access to learning, improve quality and ensure integration. (UNESCO, 2008).

The end of the competitiveness Porter (1990), is to raise the standard of living of the population, the efforts of the countries and regions should aim to prepare their youth to be competitive. The use of ICT by teachers in the educational process of teaching and learning will contribute in achieving this competitiveness.

Justification

Most countries in the world in higher education had adopted ICT, in other levels of education have fallen behind. The use of ICT to increase access and achieve a more inclusive education, improving pedagogy and increasing both the number of teachers and their capacity, remains weak. ICT should reach people of all ages, all linguistic and cultural groups, and in all circumstances. The focus should be primarily on teachers, in the broadest sense, that is, all the people who can facilitate and expand learning opportunities for all.

Current barriers and future proposals according to research of Segura (2011), the educational landscape in the educational institution the use of ICT advances slowly, especially in countries with fewer resources, a new educational landscape is emerging that schematically, is characterized by:

- The need for continuous updating of knowledge, skills and approaches (learning throughout life).

- The most important domain of cognitive and metacognitive processes and strategies against the content (learning to learn).
- The concept of literacy has changed and expanded to new areas such as mediated communication, multimedia network or the new screens. Literacy is now recognized as a complex and evolving concept in time, as a process of learning that lasts a lifetime and whose domain and applications are constantly being revised.
- The use of Information and Communication Technologies (ICT) causes that education do not have to be conditioned by time and space, and provides, the methods of individual learning and group learning and then to community learning, where knowledge is socially constructed.
- The need to change the roles of teacher and student. The teacher should stop being a speaker or instructor who dominates knowledge to become a consultant, counselor, facilitator and mediator of the teaching-learning process. The professional profile of teachers includes powers to know the capabilities of their students, design interventions focused on activity and participation of the students, evaluate resources and materials and, if possible, create their own teaching aids or, at least, adapt existing ones from the perspective of the actual diversity of their students.

The faculty barriers refer to the lack of training and confidence in the use of ICT. This failure is directly related to the quality and quantity of teacher education programs affecting its competitiveness and use of ICT in educational process.

Most professoriate explores ICT as a tool by following a systematic approach, using them to emphasize the existing traditional practice, gradually introducing them in their scheduling teaching.

Clearly, ICTs have the greatest impact in schools with "e-maturity" and teachers with "e-knowledge", suggesting that once you have laid the foundation, the benefits will be considerable. The challenge is to train all teachers and all schools to achieve "e-maturity."

A recent study in the United Kingdom on ICT test bank schools conducted by Somekh, et al, (2006), found a "technical fall" which occurs when introducing ICT in schools, followed by a significant rise in income. This decline can last about four years, but once the center is fully e-mature, results lift off.

In Mexico very few schools use this new interactive channel as an educational tool. Some institutions have the potential advantage of the use of ICT to create virtual campuses, where students can communicate at any time, either with each other or with teachers. They achieve to attend the students in an easily way. Planellas, Marcell (1997).

The ignorance of the historical development of current developments and the lack of ICT skills and their application in today's learning environments removes competitiveness in the developing countries, leading to the following questions, objectives and hypotheses that are attended in this investigation.

Research Question: What impact on learning, into the educational process, brings the competitiveness of teachers in the use of ICT?

Objectives: To identify the relationship of automated resources, interconnection achieved through the ICT tools and diverse use of ICT tools in the educational process used by teachers in the Department of Marketing and International Business from the University of Guadalajara.

Hypothesis: The implementation of automated resources, interconnection achieved through the ICT tools and diverse use of ICT tools is related positively to the educational processes used by teachers of the Department of Marketing and International Business the University of Guadalajara.

Independent variables:

Automation (automated knowledge resources).

Interconnection (achieved through ICT tools)

Diversity (in educational process)

Methodology

"The methodology represents how to organize the process of research, monitor their performance and present possible solutions to a problem that involves decision-making." (Zorrilla & Torres 1992).

Considering the type of phenomenon that was investigated, the exploratory, descriptive, correlational and prospective approach was used. A correlation analysis of the variables was performed using the model of Analysis of

Variance (ANOVA). Research work was conducted with information obtained from SMBs in the manufacturing industry in the metropolitan area of Guadalajara. A questionnaire specifically designed to gather information to be analyzed for this research was used, with a Likert scaling type.

Type of selected research

- Exploratory research. Is performed when the objective is to examine a topic or research problem which has been little studied, of which there are many questions not addressed or before. That is, when the review of the literature revealed that there are only non-subject guides and vaguely ideas related with the study problem, or, if we inquire into subject and areas from new perspectives. (Hernández Fernández & Baptista, 2010).
- Descriptive research. Search to specify the properties, characteristics and profiles of individuals, groups, communities, processes, objects or any other phenomenon that is subject to analysis. (Hernandez et al, 2010).
- Correlational research. Its purpose is to know the degree of association or relationship that exists between two or more concepts, categories or variables in a particular context. (Hernandez et al, 2010).
- Prospective Investigation. It is that which begins with the exposure of an alleged cause, and then move over time to a specific population, until establish whether or not the occurrence of the effect.
- Statistical Model ANOVA: Analysis of Variance (ANOVA) will be applied to test the hypothesis of linear dependence between the dependent and independent variables, comparing the variance explained by the model and the residual variance. A significance level of 5% will be used.
- The analysis of variance (ANOVA) was used as a test of means for two or more populations. The null hypothesis usually states that all means are equal.
- The analysis of variance of one factor only includes a categorical variable or factor. The differences in the preference of frequent, intermediate, sporadic users and non-users can be examined with one-way ANOVA of a factor.
- The analysis of variance of a factor; one treatment equals a factor level (intermediate users constituted one treated). If two or more factors are involved, the analysis is called analysis of variance of n factors. (Malhotra, 2008).
- **Measurement of Reliability:** Reliability can be measured by applying a measuring instrument two or more times to the same group of people or applying two or more measuring instruments to the same group at different times. The split halves method requires only one application of the measurement and compares scores of both parts which must be highly correlated. Cronbach's alpha coefficient requires only a measurement management for the entire population without the need of dividing it. The method used by the characteristics of the research, will be the Cronbach.
- *Measurement of coherence or internal consistency.* These are estimated reliability coefficients:
- a) Cronbach's alpha (developed by J.L. Cronbach)
- b) The KR-20 and KR-21 coefficients from Kuder and Richardson (1937).
- The calculation method in both cases requires a single administration of the measuring instrument. Its advantage is that it is not necessary to divide into two halves to the instrument items, simply measure is applied and coefficient is estimated. Most statistical programs such as SPSS and Minitab determined this and should only be interpreted.
- It should be noted that there is no rule that says: from this value there are not instrument reliability. Rather, the researcher calculates its value, submits reports and submits to scrutiny user study and other researchers. But we can say - in general - if you get 0.25 on correlation or coefficients, this indicates low reliability; if the result is 0.50, reliability is average or regular. However if it exceeds 0.75 is acceptable, and if greater than 0.90 is high, to take into account. (Hernández, Fernández, & Baptista, 2010)
- **Measuring instrument:** The scaling method Likert type (Likert, 1976), consist of a set of items presented as statements or judgments which subjects choose one of the five points of the scale. Each point will be assigned a numerical value. Thus, the subject will get a total score by summing the scores obtained in relation to all claims. For data collection must perform the following activities: selecting a tool or method of collection, apply the selected instrument and prepare comments, records and measurement results (Hernández Fernández & Baptista, 2006).

Sample designed

- The population for this investigation, it's with 27 professors in the academic department of Marketing and International Business on CUCEA, University of Guadalajara.
- The model is formed with 27 professors, that they represents a degree of coverage of 9.87% to population.
- The polls were applied to the professors in the academic department of Marketing and International Business on CUCEA, University of Guadalajara.

N= Univers of professors in the academic department of Marketing and International Business on CUCEA, University of Guadalajara. (27)

TABLE 1. FREQUENCY OF GENRE

		SEX			
		Frequency	Percentage	Percentage available	Porcentaje acumulate
Available	Female	10	37.0	37.0	37.0
	Male	17	63.0	63.0	100.0
	Total	27	100.0	100.0	

Own elaboration.

The poll was applied on 2011 A, 2011B, 2012 A, 2012 B

TABLE2. AGE OF THE RESPONDETS (27 PROFESSORS)

		Age			
		Frequency	Percentage	Percentage vavailable	Percentage accumulated
Available	30 a 34 years	1	3.7	3.7	3.7
	40 a 44 ayears	4	14.8	14.8	18.5
	45 a 50 years	3	11.1	11.1	29.6
	51 or more	19	70.4	70.4	100.0
	Total	27	100.0	100.0	

We can see that the most percentage are between 45 to 50 years, and the second places are between 40 to 44 years

TABLE 3 ACADEMIC TRAINING

		FACADEM			
		Frequency	Percentage	Percentage válido	Porcentaje acumulado
Available	Marketing	2	7.4	7.4	7.4
	Admon	14	51.9	51.9	59.3
	Others	11	40.7	40.7	100.0
	Total	27	100.0	100.0	

We get as percentage accumulated by the academic training of the Business Administration and other careers have the most number of professors respondents

TABLE 4 DESIGNATION

DESIGNATION

		Frequency	Percentage	Percentage available	Percentage accumulated
Available	Half time	4	14.8	14.8	14.8
	Full time	22	81.5	81.5	96.3
	SNI	1	3.7	3.7	100.0
	Total	27	100.0	100.0	

When we began this project on 2011 A, only if the professors have this designation. At the end of 2013 A the change of SIN increase to 1 more having a total of 2 and the more number of professors are of full time with different designation

TABLE 5 ANTIQUE

ANTIQUE

		Frequency	Percentage	Percentage available	Percentage accumulated
Available	0 a 5 years	1	3.7	3.7	3.7
	6 a 10 years	4	14.8	14.8	18.5
	11 a 15 years	6	22.2	22.2	40.7
	16 a 20 years	2	7.4	7.4	48.1
	21 a 25 years	5	18.5	18.5	66.7
	26 or more	9	33.3	33.3	100.0
	Total	27	100.0	100.0	

Our percentage in first place is between 21 to 25 years, in second place is between 16 to 20 years and third place between 11 to 15 years.

TABLE 6 VIRTUAL COURSE

CVIRTUAL

		Frequency	Percentage	Percentage available	Percentage accumulated
Available	Teach virtual course	7	25.9	25.9	25.9
	No online course taught	20	74.1	74.1	100.0
	Total	27	100.0	100.0	

25.9% use the virtual courses and this is for lack of interest to use the ICT

Scale: All the variables

Processing summary of the case

		N	%
Case	Available	27	100.0
	Excluded ^a	0	.0
	Total	27	100.0

a. Delete for the list related with all the processing variables.

Statistical reliability

Alfa de Cronbach	N of elements
.713	38

ANOVA

		Quadratics plus	gl	Average quadratic	F	Sig.
A7.1	A7.1 Inter-group	20.938	4	5.234	3.011	.040
	Intra-group	38.248	22	1.739		
	Total	59.185	26			
A7.2	A7.2 Inter-group	13.660	4	3.415	2.844	.048
	Intra-group	26.414	22	1.201		
	Total	40.074	26			
7.9	A7.9 Inter-group	16.961	4	4.240	3.748	.018
	Intra-group	24.890	22	1.131		
	Total	41.852	26			

Results

Interpretation of the anovas

Resours used to teach. A7.1 they teach at intelligente classroom. A7.2 they have acceses to internet. A7.9 use e-learning.

Of this modle of resourses are the questions that give us more meanings that they are approved

ANOVA

		Quadratics plus	gl	Average quadratic	F	Sig.
B8.8	Inter-group	14.467	4	3.617	2.822	.050
	Intra-group	28.200	22	1.282		
	Total	42.667	26			

On this academical training B8.8 that is the domain of the forums in academical training it was the one that had most significance

ANOVA

		Quadratics plus	gl	Average quadratic	F	Sig.
C9.4	Inter-group	12.549	4	3.137	2.752	.054
	Intra-group	25.081	22	1.140		
	Total	37.630	26			

Inovation in the use of videos was the most relevant, for the teaching and support of the class

ANOVA

		Quadratics plus	gl	Average quadratic	F	Sig.
D10.4	Inter-group	21.750	4	5.438	3.121	.035
	Intra-group	38.324	22	1.742		
	Total	60.074	26			

Resources and handling of ICT was the searching of information in data bank.
It is the most used for the support of teachers.

Conclusion

This investigation help us to know and show us the relation and the importance of the use of ICT in teaching process of education in the University of Guadalajara, in universitary center of economical and management sciencies in the department of marketing and international bussiness.

In the long of the investigation was used considering the type of phenomenon that was investigated, the exploratory, descriptive, correlational and prospective approach. Because its based in the description of how the different factors influence over the dependent and independent variables, in this case the use of the resources in the smart classrooms in the university center are very used at the same time that they are used the forums to complement the help in teaching process. Complementing the use of videos and searching of information in the data bank that has the same center for support teachers in teaching and learning.

Reference

- [1] Adell, J. (1997): *Tendencias en educación en la sociedad de las tecnologías de la información*. En De Pablos, J. y Jiménez, J. (Eds.). Bilbao: Nuevas tecnologías, comunicación audiovisual y educación.
- [2] Adell, J. (1998). *Redes y Educación*. En De Pablos, J. y Jiménez, J. (Eds.). Nuevas tecnologías, comunicación audiovisual y educación. (pp. 177-211). Barcelona: Ed. Cedecs. Recuperado el (19-12-2013) de http://nti.uji.es/docs/nti/redes_y_educacion.html.
- [3] Albirini, A. (2006), "Cultural perceptions: The missing element in the implementation of ICT in developing countries" [version electronica], *International Journal of Education and Development using Information and Communication Technology*, 2 (1), pp. 49-65.
- [4] Alonso, C. (1996). Formación del profesorado en tecnología educativa. En Alonso C., Cantón, I. y Gallego, D., (Coords.), *Integración Curricular de los Recursos Tecnológicos* (pp. 31- 64). Barcelona: Oikos-Tau.
- [5] Álvarez M., Cabral, J. González, V. y Morfín, M. (2005), "*Aprendizaje en Línea*". México: Universidad de Guadalajara. ISBN 970-27-0066-3
- [6] Aprendizaje mediante dispositivos móviles: "No podemos seguir viviendo en la era digital. Recuperado el 19-12-2013. De http://nti.uji.es/docs/nti/redes_y_educacion.html.
- [7] Association for Educational Communications and Technology (2008), "Definition", en Januszewski, A. y Molenda, M. (Eds.), *Educational technology: A definition with commentary*. New York: Lawrence Erlbaum Associates. pp. 1-14.
- [8] Badilla, J. (22 de abril de 2008). *Las Tics*. Recuperado el 12 de diciembre de 2011, de <http://www.slideshare.net/jbadilla/las-tics-presentation-596048>.
- [9] Bautista, J. (20 de Noviembre de 2007). Blog de Juan Bautista. *Importancia de las TIC en el proceso de enseñanza aprendizaje*. Recuperado el 12 de diciembre de 2011, de <http://comunidadesvirtuales.obolog.com/importancia-tic-proceso-ensenanza-aprendizaje-40185>
- [10] Blurton, C. (1999). New Directions of ICT-Use in Education. (Online) última visita en marzo del 2013. <http://www.unesco.org/education/educprog/lwf/dl/edict.pdf>
- [11] Ballesta, P. J. (1996): *La formación del profesor en nuevas tecnologías aplicadas a la educación*. En Redes de comunicación. Palma. España: Universidad de Islas Baleares.
- [12] Barcelona: Cedecs. España. 1998. En <http://nti.uji.es/~jordi>
- [13] Barron (1998). *Designing Web-Based Training*, 2000. Estados unidos. Wiley. ISBN: 978-047-13561-41.
- [14] Barroso, J. y Cabero, J. (2010). La investigación educativa en TIC. Visiones prácticas. Madrid: Síntesis.
- [15] Bosco, J. (1995). Schooling and Learning in an Information Society. En U.S. Congress, Office of Technology Assessment, Education and Technology: Future Visions, OTA-BP-EHR-169. Washington, DC: U.S. Government Printing Office.
- [16] Borrel, N., Castro, D., Tomás, M. (1999). *El cambio de la cultura universitaria en el siglo XXI: consecuencias en los procesos de E/A*. Congreso Internacional de Docencia Universitaria e Innovación. Barcelona, España.
- [17] Borrel, N., Feixas, M., Marqués, P. (2000). *Funciones y competencias básicas del profesorado*. Congreso Internacional de Docencia Universitaria e Innovación. Barcelona, España.
- [18] Buchem, I. (2012). Psychological Ownership and Personal Learning Environments: Do sense of ownership and control really matter? En *Proceedings of the The PLE Conference 2012, 11 al 13 de Julio 2012*, Aveiro, Portugal. ISSN: 2182-8229. Disponible en <http://revistas.ua.pt/index.php/ple/issue/current>
- [19] Buchem, I., Attwell, G. y Torres-Kompen, R. (2011a). Understanding Personal Learning Environments: Literature review and synthesis through the Activity Theory lens. págs. 1-33. En *Proceedings of the The PLE Conference 2011*, 10 al 12 de julio de 2011, Southampton, Reino Unido. Disponible en <http://journal.webscience.org/658/> La lista de publicaciones revisada puede verse en <http://goo.gl/oo35b>
- [20] Brun, M. (2004). *La necesidad del cambio conceptual en los docentes, para la incorporación de la Informática, como recurso educativo*. Congreso de Informática' 2004. Ponencia No. 050. Ciudad de La Habana.
- [21] Cabero, J. y Gisbert, M. (2005). *Formación en Internet. Guía para el diseño de materiales didácticos*. Sevilla: MAD. ISBN: 84-665-2054-6

- [22] Cabero, J. y otros (1999): La formación y el perfeccionamiento del profesorado en nuevas tecnologías: retos hacia el futuro. En Ferrés, J. y Márquez, P. *Comunicación Educativa y Nuevas Tecnologías*. Barcelona: Praxis.
- [23] Cabero, J. (1996). Nuevas tecnologías, comunicación y educación. EDUTEC. Revista Electrónica de Tecnología Educativa, nº 1. Febrero de 1996. <URL:<http://www.uib.es/depart/gte/revelec1.html>>.
- [24] Cabero, J. (2006). *Bases pedagógicas para la integración de las TIC en Primaria y Secundaria*. Universidad de Sevilla: Grupo de Tecnología Educativa de la (<http://tecnologiaedu.us.es/bibliovir/pdf/Bases-456.pdf>) (04-09-2009).
- [25] Cabero, J.; LORENTE, C. & ROMÁN, P. (2007). La tecnología cambió los escenarios: el efecto pigmalión se hizo realidad. *Comunicar*, 28; 167-175.
- [26] Carr, N. (2011). *Agua superficial. ¿Qué está haciendo Internet con nuestras mentes?* Madrid: Taurus.
- [27] Castañeda, L. y Adell, J. (2011). El desarrollo profesional de los docentes en entornos personales de aprendizaje (PLE). En Roig Vila, R. y Laneve, C. (Eds.) *La práctica educativa en la Sociedad de la Información: Innovación a través de la investigación / La práctica educativa nella Società dell'informazione: L'innovazione attraverso la ricerca*. Alcoy: Marfil. 83-95
- [28] Castañeda, L. y Adell, J. (Eds.). (2013). *Entornos Personales de Aprendizaje: claves para el ecosistema educativo en red*. Alcoy: Marfil.
- [29] Cebrián, M: (1999). La formación del profesorado en el uso de medios y recursos didácticos. En Cabero, J. (ED) *Tecnología Educativa*. Madrid.
- [30] Cebrián, M. y Gallego, M. J. (2011). *Procesos educativos con TIC en la sociedad del conocimiento*. Madrid: Pirámide.
- [31] Cide Centro de Investigación y Documentación Educativa “*La integración de las nuevas tecnologías en los centros. Una aproximación multivariada*”. (2003)
- [32] Comisión Europea. *E-Europe 2002 (COM) 783. Plan plurianual 2002-2004, para la integración efectiva de las TIC en los sistemas de educación y formación europeos*.
- [33] Comisión Económica de América Latina y el Caribe (CEPAL) (2007). *Plan de Acción sobre la Sociedad de la Información de América Latina y el Caribe eLAC 2007*, [en línea]. Disponible en: http://www.cepal.org/socinfo/noticias/documentosdetrabajo/8/21678/eLAC_2007_Espanol.pdf
- [34] Comisión Europea (2006): Comunicación de la Comisión Europea *i2010 – Informe Anual 2007 de la Sociedad de la Información* [en línea]. Disponible en: http://ec.europa.eu/information_society/eeurope/i2010/annual_report/index_en.htm
- [35] Conferencia virtual UNESCO-UNEVOC sobre las TIC y la EFTP. 24-04-2013
- [36] Cuban, L., Kirkpatrick, H. y C. Peck (2001), “High access and low use of
- [37] Technologies in high school classrooms: Explaining an apparent paradox”
- [38] [Versión electrónica], *American Educational Research Journal*, Vol. 38, (pp. 813-834).
- [39] De Pablos, J. (2009). Tecnología educativa. La formación del profesorado en la era de Internet. [Versión electrónica]. *Educativo Siglo XXI*. Málaga: Ediciones Aljibe. Vol. 27.2 ´ 2009, (pp. 293-296).
- [40] De Pablos, J., Area, M., Valverde, J. y Correa, J. M. (Ed. 1ª) (2010). *Políticas educativas y buenas prácticas con TIC*. Barcelona: GRAÓ.
- [41] Educación, UAB. Recuperado el 12 de Diciembre, de <http://peremarques.pangea.org/tic.htm>.
- [42] El aprendizaje mediante dispositivos móviles en África y el Oriente Medio-ahora, en árabe. Recuperado en 25-02-2013. De http://nti.uji.es/docs/nti/redes_y_educacion.html.
- [43] ELAC (2007). *Plan de Acción sobre la Sociedad de la Información de América Latina y el Caribe*, [en línea]. Disponible: http://www.cepal.org/socinfo/noticias/documentosdetrabajo/8/21678/eLAC_2007_Espanol.pdf
- [44] Empírica (2006): *Acceso a la Comparativa y Uso de las TIC en los Centros Educativos Europeos. Informe final de las encuestas a un Directivo y un Profesor de aula en 27 países* [en línea]. Disponible en: http://europa.eu.int/information_society/eeurope/i2010/docs/studies/final_report_3.pdf
- [45] Escamilla Santana, M. A. (2010). Identificación y valoración de variables vinculadas al uso de las TIC´s como estrategia de enseñanza-aprendizaje en la Universidad Autónoma de Querétaro, México. (Tesis del Departamento de Didáctica, Organización y Métodos de Investigación). Recuperado en 13-07-2013, de: <http://hdl.handle.net/10366/76437>

- [46] Fernández, A., (1996) El formador: competencias profesionales para la innovación. En Gairín, J., Fernández, A., Tejada, J. y Navío, A. (Coords.): *Formación para el Empleo*. II Congreso Internacional de Formación Ocupacional. España, UAB.
- [47] Feixas, M., Marqués, P., Tomás, M. (1999) *La Universidad ante los retos que plantea la sociedad de la información. El papel de las TIC*. Congreso Edutec. Sevilla, España.
- [48] Foro de alto nivel políticas relativas a las TIC y la Educación para Todos: logros alcanzados y perspectivas de avance. Recuperado en 13-05-2013.
- [49] García-Valcárcel, A. (2007). Herramientas tecnológicas para mejorar la docencia universitaria. Una reflexión desde la experiencia y la investigación. *Revista Iberoamericana de Educación a Distancia*. Vol. 10, 125-148. I.S.S.N.: 1138-2783
- [50] Gómez Pérez, J. R. (2005). Las Tic en Educación. Recuperado el 2 de Diciembre de 2011, de <http://boj.pntic.mec.es/jgomez46/ticedu.htm>
- [51] González, A (2008). LTE, el salto al 4G móvil. Recuperado el 29 de Noviembre de 2009 de Redestelecom.es. Consultado el 25-02-2013. En
- [52] González Soto. A.P., Gisbert, M., Guillen, A., Jiménez, B. Lladó, F. y Rallo, R. (1996). Las nuevas tecnologías en la educación. En Salinas et. al. Redes de comunicación, redes de aprendizaje. EDUTEC'95. Palma: Universitat de les Illes Balears, págs. 409-422. <URL:<http://www.uib.es/depart/gte/grurehidi.html>>.
- [53] GRAELLS, P (2008): "Las TIC y sus aportaciones a la sociedad" 2000. Departamento de Pedagogía Aplicada. Consultado el 23/03/08.
- [54] Grupo de Estudios Prospectivos Sociedad Economía y Ambiente. Última visita Noviembre del 2011. De GepSea Web site: <http://personales.com/venezuela/merida/gepsea/sc.htm>
- [55] Gutiérrez, A. (2003). Alfabetización digital. Algo más que ratones y teclas. Barcelona: Editorial Gedisa.
- [56] Harnad, S. (1991). Post-Guttenberg Galaxy: The Fourth Revolution in the Means of production of Knowledge. *The Public-Access Computer System Review*, 2(1), 39-53
- [57] Hernández, R., Fernández, C., Baptista, P. (2011) Metodología de la Investigación. México: Mc Graw Hill.
- [58] Jones, J. D., Staats, W. D. y Bowling, N. (2004), An evaluation of the merit reading software program in the Calhoun county (WV) middle/high school [version electrónica]. *Journal of Research on Technology in Education*. Vol. 37, (pp. 177-225)
- [59] Kerlinger, F. N. (2002). *Investigacion del Comportamiento*. Mexico : McGraw Hill.
- [60] Khan, H. (2001). Web-based Training. Estados Unidos. Educational Technology. ISBN: 087-7783-020
- [61] Klamma, R., Chatti, M.A., Duval, E., Hummel, H., Hvannberg, E.H., Kravcik, M., Law, E., Naeve, A., & Scott, P. (2007). *Social Software for Life-long Learning*. *Educational Technology & Society*, 10 (3), 72-83.
- [62] Korte, W. & Hüsing, T. (2006). *Acceso a la Comparativa y Uso de las TIC en los Centros Educativos Europeos 2006: Resultados de las encuestas a un Directivo y un Profesor de aula en 27 países*, [en línea]. Disponible en: http://www.empirica.biz/empirica/publikationen/documents/Learnind_paper_Korte_Huesing_Code_427_final.pdf
- [63] Kozma, R. B. (2003), Technology and classroom practices: An international study. [Version electrónica], *Journal of Research on Technology in Education*, 36, (pp.1-14). ISSN: 1473-7834
- [64] Lesne, J. F., et al. (2007). *Rapport sur la contribution des nouvelles technologies à la modernisation du système éducatif, Inspection générale des finances*, [en línea]. París. Disponible en : http://www.audits.performance-publique.gouv.fr/bib_res/664.pdf
- [65] Levinson, P. (1990). Computer Conferencing in the Context of the Evolutions of Media. En Harasim, L.M. Online Education. Perspectives on a New Environment. New York: Praeger Press. págs. 3-14.
- [66] Martínez, F. (1996). La enseñanza ante los nuevos canales de comunicación. En F.J. Tejedor y A. G. Valcárcel (Eds.). Perspectivas de las nuevas tecnologías en la educación. Madrid: Narcea, págs. 101-119.
- [67] Mayer, Richard E. (2001). *Multimedia Learning*. Cambridge university press. ISBN: 052-151-41-26.
- [68] Mazza, R., & Dimitrova, V. (2007). CourseVis: A graphical student monitoring tool for supporting instructors in web-based distance course. *International Journal of Human-Computer Studies*. Vol. 65, Issue 2, pp. 125-139.

- [69] McCormack, C. (1998). *Building a Web-based education system*. Estados Unidos. Wiley Computer Pub. ISBN: 978-047-11916-29
- [70] Ministerio de Educación y Ciencia (MEC) (2007). *Las Tecnologías de la Información y de la Comunicación e la Educación. Informe sobre la implantación y el uso de las TIC en los centros docentes de educación primaria y secundaria (Curso 2005-2006)*. Madrid.
- [71] Molenda, M. (2008). *Educational technology: A definition with commentary*. Estados Unidos. Lawrence Erlbaum Associates. ISBN: 97-80-80585-861-7
- [72] Morales, F. M. (2009). Empleo de TIC en la enseñanza práctica: Análisis comparativo en diferentes titulaciones universitarias. Comunicación presentada en el I Congreso Internacional sobre uso y buenas prácticas con TIC. Universidad de Málaga, España. ISSN: 1133-945X
- [73] Morales, F. M. (2012). *Actitudes e Intereses hacia las TIC en una Muestra de Estudiantes de Posgrado*. Colegio Oficial de Psicólogos de Madrid. Málaga España. ISSN: 1135-755X. Págs. 53-63
- [74] Morales Rodríguez, Francisco Manuel. (2012). *Actitudes e Intereses hacia las TIC en una Muestra de Estudiantes de Posgrado*. Psicología Educativa, 18(1), 53-63 ISSN: 1135-755X
- [75] Murray R. Spiegel y Larry J. Stephens. (2009). *Estadística*. 4ta edición. Mc Graw-Hill. México, D.F.
- [76] Observatorio para la Sociedad de la Información en América Latina y el Caribe (OSILAC). *Monitoreo del eLAC 2007: avances y estado actual del desarrollo de las Sociedades de la Información en América Latina y el Caribe OSILAC*, [en línea]. Disponible en: <http://www.eclac.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/5/29945/P29945.xml>
- [77] OCDE. *Are students ready for a technology-rich world? What PISA Studies Tell Us*, [en línea]. Disponible en: http://www.oecd.org/document/17/0,2340,en_2649_37455_35992849_1_1_1_37455,00.html
- [78] OCDE. *Informe PISA 2000*.
- [79] OCDE. *Informe PISA 2003*.
- [80] Porter, M. E., (1990), *La Ventaja Competitiva de las Naciones*. México. Plaza & Janes. ISBN: 84-01-36124-9
- [81] Ríos, J. M. y Ruiz, J. (2011). *Competencias, TIC e innovación. Nuevos escenarios para nuevos retos*. Sevilla. Ediciones MAD-Eduforma. ISBN: 978-846-76831-65
- [82] Robertson, J. W. (2003). *Stepping out of the box: Rethinking the failure of ICT to transform schools*. *Journal of Educational Change*, núm. 4, pp. 323-344. ISSN: 1573-1812
- [83] Rodríguez, A.; García, E.; Ibáñez, R.; González, J. y Heine, J. (2009). *Las TIC en la educación superior: estudio de los factores intervinientes en la adopción de un LMS por docentes innovadores*. *Revista latinoamericana de tecnología educativa. RELATEC*, 8 (1). 35-51. [<http://campusvirtual.unex.es/cala/editio/>]. ISSN: 1695-288X.
- [84] Roldán, D., Buendía, F., Ejarque, E., García, P., Hervás, A., Martín, J., Santos, O., y Oltra, J. (2010).
- [85] *Gestión de proyectos de e-Learning*. Madrid: Alfaomega.
- [86] Salinas, J. (1995). *Campus electrónicos y redes de aprendizaje*. EDUTECH'95. Recuperado el 113-07-29013 URL: <http://www.uib.es/depart/gte/salinas.html>.
- [87] Sampieri Hernández, R., Fernández Collado, C., & Baptista Lucio, P. (2006). *Metodología investigación* (4ta edic. ed.). México: McGraw-Hill.
- [88] Sampieri Hernández, R., Fernández Collado, C., & Baptista Lucio, P. (2007). *Fundamentos en la Metodología asdasdde asdsadla investigación* (1era edic. en español). México: McGraw-Hill
- [89] Sangrá A. González, M. (2004). *La transformación de las universidades a través de las TIC: discursos y prácticas*. España. Editorial UOC. ISBN: 84-9788-034-X
- [90] Sanz, J (2006) Elementos para un marco conceptual sobre la incorporación de las TIC en la educación.
- [91] Artículo: Proyecto de investigación sobre las T.I.C. en educación, que orienta el autor en la Facultad de Filosofía de la USTA, dentro del Grupo Saturnino Gutiérrez, O.P. 27, 94 (2006)
- [92] Somekh, B., et al. (2006). *Evaluación del Proyecto de Bancos de Pruebas TIC. Informe Final: Sección 4 – Informe Cualitativo 2006*. Becta: Coventry.
- [93] Sunkel, G. (2006). *Las Tecnologías de la Información y la Comunicación (TIC) en la educación en América Latina. Una exploración de indicadores*. Naciones Unidas; CEPAL.

- [94] UNESCO.org. Consultado el 13-07-2013. En: <http://www.eduteka.org/EstandaresDocentesUnesco.php>
- [95] UNESCO. *Estándares de la Unesco de competencias en TIC para docentes (en Línea)*. Disponible en: <http://www.eduteka.org/EstandaresDocentesUnesco.php>
- [96] Valdés P. (2013). *Subaru cars recalled for loss of steering*. CNN Money. Recuperado de <http://www.ita.org>.
- [97] Vélez, C.M. (2001). *Apuntes de Metodología de la Investigación*. EAFIT. Colombia.
- [98] Victoria L. Tinio. (2003). *ICT in Education*. UNDP-APDIP.
- [99] Waddock, S.A. y Graves, S.B. (1997): "The corporate social performance-financial performance link". *Strategic Management Journal*, 18. pp. 303-319.
- [100] Zabalza, M. (2003). : *Formando tele formadores: diseño y desarrollo de un curso online Utilizando WebCT. E- Learning*. Recuperado de <http://www.um.es/ead/red/9/SGA.pdf>
- [101] Zabalza, M. (2006). *Competencias docentes del profesorado universitario. Calidad y desarrollo profesional*. Madrid: Narcea Ediciones.

Eight years into career after business degree
– Influence of gender and personality on career success

*Piia Edinger, pked@uva.fi,
Vesa Routamaa, vmr@uva.fi
Tiina Brandt, tiina.brandt@uva.fi
University of Vaasa, Finland*

Eight years into career after business degree – Influence of gender and personality on career success

Abstract

The aim of this study is to find recent information on how different personality preferences and gender are in relationship with career success. This topic is important also because shorter graduation times and yet longer productive work years are demanded by the society, thus more strategic career planning is needed.

The graduates (N=307) of a Finnish university have worked for an average of 8.3 years. The objective career success was measured with salary and position, and the subjective career success was measured with career satisfaction, satisfaction with employer and work relations, and work-life balance. Independent variables were personality and gender.

Some aspects of personality were impacted by gender others were not. The results show for example that extraverted men were in better positions and were earning more money than introverted men; they were also more satisfied with their career than introverted. Perceiving people overall are not as stressed over heavy work load, which indicates that spontaneity and flexibility is more preferable and should be developed in business life.

Introduction

The web of science finds 1047 articles and reviews for “career success” search and the topic has been studied throughout times because individuals’ career success reflects organizations’ success, thus researchers and managers need to know how to assist employees with this (Ng, Eby, Sorensen and Feldman, 2005). The developments in the world economy after 2008 may have altered people’s views of success. Unemployment rates have increased and managers’ bonuses decreased. How is career success viewed currently by Finnish business people? This updated information is needed to guide universities in their recruiting, and to give more specific reference to educational and career advisors on how business degree has served different personality types, for example.

Career success can be defined as positive work related outcomes, and psychological accomplishments that originate from individual’s work experiences (Judge et al., 1995; Seibert, Kraimer and Liden, 2001). Career success has been traditionally divided into objective and subjective categories. Objective career success is typically measured by “external indicators of career advancement or the accumulation of extrinsic rewards” (Feldman and Ng, 2007). Objective career success measurements have historically been more used in research: it is easy to collect information of salary and promotions, preferably from companies rather than self-report (Heslin, 2005).

Typically researchers have investigated individuals’ “attitudes, emotions, and perceptions of” their personal career accomplishments to determine the level of subjective career success (Feldman & Ng, 2007). Subjective career success is only based on a personal view of the person and can be measured with questions dealing with career satisfaction; it may include intangible desires such as work-life balance and fulfillment. (Heslin, 2005).

Researchers have been studying career success and predicting factors for a long time, and Ng et al. (2005) for example categorized influencing factors as following: 1) human capital, 2) organizational support, 3) socio-demographic variables, and 4) staple individual differences. All categories were found to be positively related to career success. Organizational support (such as career support, support of manager, and training and developmental possibilities) and individual differences (such as personality and proactivity) influenced more subjective career success. Meanwhile, objective career success was more related to socio-demographic variables (such as gender, age, and ethnic background) and social capital (such as work hours, work experience, educational level, political skills and knowledge). Women had a stronger relationship between salary and education, and salary and work hours, which indicates that they have to work harder to prove their competence. Educational level was related to work satisfaction more so in case of women than men. (Ng et al., 2005.)

Ng et al. (2005) suggested more studies regarding the differences between men and women. They were especially interested in seeing what kind of situations set an advantage for men or women when compared to one another regarding objective career success. They also encouraged finding other influential variables that were taken into account in their meta-analysis. Spurk and Abele (2011) encouraged to find more details of individual differences’

impact in career success. Other factors that have been found to be related to objective or subjective career success are the size of the organization (Judge et al., 1995), career mobility (Feldman and Ng, 2007) socio-economic background and education success (Childs and Klimoski, 1986; Furnham and Cheng, 2013) and intelligence (Hartmann, Larsen and Nyborg, 2009).

Judge and Kammeyer-Mueller (2007) proposed three reasons why personality does affect career success, first one being that personality influences what jobs [or educational fields] we are drawn to and who gets selected. Secondly personality influences job performance which leads to promotions and better salary and finally, personality influences our social interactions, which help to build networks, gain knowledge and help in one's career. So we can assume that personality and gender will be related to career success, in the next section we will briefly present other previous studies related to the subject.

Earlier studies

Individual traits have found to be impact on career by several studies. Moutafi, Furnham and Crump (2007) studied the relationship of personality and objective career success amongst British managers. They found that intuition correlated positively with the managerial levels, and introversion and sensing correlated negatively. These findings coincide with previous studies (see (Moutafi et al., 2007; Rahim, 1981; Rice and Lindecamp, 1989). Proactive personality (e.g. Challenging the status quo, managing one's career) was also found to be leading to a better career success (Maurer and Chapman, 2013; Seibert, Kraimer, and Crant, 2001). Also Spurk and Abele (2011), Furnham and Cheng (2013), and Boudreau et al. (2001) found indirect and direct influences of personality (Big five traits) on career success.

Judge and Kammeyer-Mueller (2007) conclude in their review of Big five traits' relationship to career success that extroversion tends to be positively related to career success both subjective and objective. In 1996, (Melamed) found that extroverted men had a higher career success than introverted men in UK. Boudreau, Boswell, and Judge's (2001) study supported this results but also found that there no such relationship amongst American executives. Openness to experience had no relationship, and agreeableness had a negative relationship to objective success but no connection to subjective success. Conscientiousness may have a positive relationship to both but the results are inconsistent, whereas emotional stability shows bit stronger relationship to both. (Judge and Kammeyer-Mueller, 2007.) Psychological aspects, like personality and psychological capital has been found to be positively connected with individuals' career mobility and success also, when the mobility is not physical but psychological (see e.g. Brandt and Järnlström, 2013; Verbruggen, 2012). Researchers have also found a relationship between personality types and higher education success (Routamaa, Koskinen and Koskinen, 2010; Hautala and Routamaa, 2007), which implies that this specific personality indicator may be a good predictor also regarding the careers.

Methods

Personality Indicator

Personality might be considered the one dominant trait a person displays, but usually it is defined as a distinctive pattern of traits or behavior in which thoughts and emotions are included (Mischel, 1986). In this study we used Myers Briggs Type Indicator (MBTI), which was develop to measure 16 personality types based on Carl Gustav Jung's theory (Jung, 1971). MBTI reveals person's habitual preference of orientation of energy (E/I), process of perception (S/N), decision-making function (T/F) and attitude of life (J/P) (Briggs Myers, McCaulley, Quenk, and Hammer, 1998). See descriptions below in table 1.

The MBTI's "...validity is determined by its ability to demonstrate relationships and outcomes predicted by [Jung's] theory" (Briggs Myers et al., 1985: 175). The MBTI's construct validity has been proven by independent studies that investigated whether type distributions coincide with the requirements of certain professions. Correlations of other measures with the MBTI's continuous scores and studies of behavioral differences between the types have also validated the system (see e.g., Briggs Myers et al., 1985 for more detail). Gardner and Martinko (1996: 77) considered whether the MBTI is "a reliable and valid instrument for studying relationships among managerial personalities,

cognitions, behaviors, effectiveness, and situational variables” and their thorough review suggested that it is. They did recommend some “refinements of type construct and its measures.” The construct validity and reliability of the Finnish form (F-version) have been proven during a validation process spanning several years (see e.g., Järnlström, 2000). Järnlström reported an internal consistency (Pearson’s correlation coefficients) of .65 to .76 and Cronbach’s coefficient alpha of .79 to .86.

TABLE 1: DEFINITIONS OF PERSONALITY PREFERENCES

Extraversion–Introversion Dichotomy <i>(attitudes or orientations of energy)</i>		Sensing–Intuition Dichotomy <i>(functions or processes of perception)</i>	
Extraversion (E) Directing energy mainly toward the outer world of people and objects	Introversion (I) Directing energy mainly toward the inner world of experiences and ideas	Sensing (S) Focusing mainly on what can be perceived by five senses; real facts	Intuition (N) Focusing mainly on perceiving patterns and interrelationships; possibilities
Thinking–Feeling Dichotomy <i>(functions or processes of judging)</i>		Judgment–Perception Dichotomy <i>(attitudes toward dealing with outer world)</i>	
Thinking (T) Basing conclusions on logical analysis with a focus on objectivity and detachment	Feeling (F) Basing conclusions on personal and social values with a focus on understanding and harmony	Judging (J) Preferring the decisiveness and closure that result from dealing with the outer world using one of the Judging processes	Perceiving (P) Preferring the flexibility and spontaneity that result from dealing with the outer world using one of the Perceiving processes

Questionnaires

The participants were send paper and online surveys that included questions about satisfaction to career related issues. They could choose between 1-7 Likert scale, one being disagree completely, and seven being agree completely, or one being very weak, and seven being very good. Out of the 18 questions three factors were formed which described different aspects of satisfaction levels.

The *Career satisfaction* describes persons’ happiness with their career so far and also includes the confidence level of the future career. This is different from job satisfaction that focuses on the current job as suggested by Judge and Kammeyer-Mueller (2007). This factor includes 3 items: ”How has your career been so far in your opinion?”, ”How has your career been when comparing to your peers from university?”, and ”How do you estimate your career success to be in ten years when compared to others in the similar position?” Cronbach’s alpha was 0.834.

Satisfaction with employer and work relations factor includes also three items ($\alpha=.744$), ”I am satisfied with my employer”, ”I am satisfied with the actions of my closest supervisor”, and ”I am happy with my colleagues”.

In the third factor, *Work load* also three item loaded cleanly, reliability test was again satisfactory ($\alpha=.783$). This factor describes the persons’ satisfaction with the amount of work work-life balance. Items included two items that were reversed: ”My job is mentally too straining”, ”I have too much work”, and ”I am able to keep my personal life and work in balance”.

Participants

The data consists of people who graduated from a Finnish university in 2005 or 2006 and had worked in the job that fits their degree for the average of 8.3 years. Their personality types were determined during their studies, and were contacted again last year in 2013 with a paper survey and an online survey. The respondent rate was acceptable 31%, and total amount of respondents was 307. 52% of them were men. In some of the cases we did not have all the required data of them to include them in the analysis thus the number of people vary between different tests, N being between 176 and 293. The respondents have worked an average of 8,7 years after graduation of which average 8,2 years were in a job that was appropriate to their degree. They have worked for 2,5 different employer after graduation on average. Most often mentioned fields were industrial (13,9%), information and communication (15,9%), finance and insurance (10%), b2b sales (7,1%), public sector (6,8%), education (12 %), and other services (9,4%).

Data analysis

Chi-square tests were run to find any significant differences between gender and personality preferences regarding objective career success measurements. Further Cramer's V was analyzed to investigate the strength of the association. Since subjective career success variables were continuous, t-tests and one-way anova were run in those cases and Cohen's effect sizes were calculated and evaluated.

Results

Objective career success – salary

In this section we will explore the results regarding objective career success, both salary and position. First we will view the crosstabulations of salary, starting with just gender, then by personality, finally addressing the comparison between genders with similar personality preferences, for example, a comparison of woman and man introverted leaders, woman and man extraverted leaders. And within gender comparisons are made with opposite personality preferences, for example are there differences between man extraverts and man introverts, or woman intuitivist and woman sensing types. Then the same approach is taken with position.

Women are 29,7% more likely to receive a monthly salary of 3999 euros than men, while men are 36% more likely to receive a monthly salary of over 5000 euros when compared to women. A chi-square test confirms that the men are likely to be more successful than woman when considering salary, $\chi^2(3) = 42.188$, $p = .000$. All expected cell frequencies were greater than five, this was the case in all performed tests in this study except of one exception that will be mentioned later. The association is very strong Cramer's V = 0.383, $p = .000$. In a similar longitudinal study in Germany, amongst medical professionals, men were also found to have earnings much higher to women (Evers and Sieverding, 2013).

The test indicates that there is no statistically significant relationship $\chi^2(2) = 5.771$, $p = .056$ between extraversion-introversion and salary. There is however a trend indicating that extraverts earn more money. A chi-square test reveals there is no relationship between sensing-intuition and salary $\chi^2(2) = 1.115$, $p = .561$. No relationship was found between thinking-feeling variable and salary either $\chi^2(2) = 2.869$, $p = .238$. And finally there was no relationship between judging-perceiving and salary variables $\chi^2(2) = 0.779$, $p = .677$.

A chi-square test was conducted to determine if interaction of gender and personality preference (extraversion – introversion) is in relationship with salary differences. The test indicates that there is a relationship $\chi^2(6) = 25.421$, $p = .000$, and it is very strong $\phi = 0.263$, $p = .000$. As can be seen in table 2 below, extraverted men have a bigger salary than introverted men, and a similar trend is visible with women. Men earn more than women independent of this particular personality preference. Thus gender has a bigger influence on how successful one is when considering objective career success measured with salary only.

TABLE 2: SALARY * E/I*GENDER CROSSTABULATION

		E/I*gender				Total	
		Extraverted men	Extraverted women	Introverted men	Introverted women		
Salary (euros/month)	3999 or lower	Count	10	23	10	13	56
		% within E/I*gender	16,7%	38,3%	27,0%	48,1%	30,4%
	4000-4999	Count	10	17	11	10	48
		% within E/I*gender	16,7%	28,3%	29,7%	37,0%	26,1%
	5000+	Count	40	20	16	4	80
		% within E/I*gender	66,7%	33,3%	43,2%	14,8%	43,5%

Total	Count	60	60	37	27	184
	% within E/I*gender	100,0%	100,0%	100,0%	100,0%	100,0%

A chi-square test was conducted to determine if interaction of gender and personality preference (sensing – intuition) is in relationship with salary differences. The test indicates that there is a relationship $\chi^2(6) = 20.8$, $p = .002$, and it is strong $\phi = 0.238$, $p = .002$. Intuitive women earn more money than women with sensing preference, but in men this personality preference does not seem to have such a strong relationship, see table 3 below.

TABLE 3: SALARY * S/N*GENDER CROSSTABULATION

		S/N*gender				Total	
		Sensing men	Sensing women	Intuitive men	Intuitive women		
Salary	3999 or lower	Count	12	19	8	17	56
		% within S/N*gender	21,8%	50,0%	19,0%	34,7%	30,4%
	4000-4999	Count	10	11	11	16	48
		% within S/N*gender	18,2%	28,9%	26,2%	32,7%	26,1%
	5000+	Count	33	8	23	16	80
		% within S/N*gender	60,0%	21,1%	54,8%	32,7%	43,5%
Total	% within S/N*gender	55	38	42	49	184	100,0%

The relation between thinking-feeling*gender variable and salary was significant $\chi^2(6) = 20.18$, $p = .003$, and it is strong $\phi = 0.234$, $p = .003$. The test's reliability a bit questionable since one cell did not meet the requirements of expected count being more than have. The minimum expected count is 4.43. We did decide to still make careful discoveries of these results. Women who make decision based on values and feelings are more likely to earn more money when considering women with thinking preference, that is logical and objective decision making. While amongst men it is the opposite, as can be seen in table 4 below.

TABLE 4: SALARY* T/F*GENDER CROSSTABULATION

		T/F*gender			Total		
		Thinking men	Thinking women	Feeling men	Feeling women		
Salary	3999 or lower	Count	15	18	5	18	56
		% within T/F*gender	18,8%	40,9%	29,4%	41,9%	30,4%
	4000-4999	Count	17	16	4	11	48
		% within T/F*gender	21,2%	36,4%	23,5%	25,6%	26,1%
	5000+	Count	48	10	8	14	80
		% within T/F*gender	60,0%	22,7%	47,1%	32,6%	43,5%

	Count	80	44	17	43	184
Total	% within T/F*gender	100,0%	100,0%	100,0%	100,0%	100,0%

As can be seen by the frequencies cross tabulated in table 5, there is a significant relationship between judging-perceiving*gender variable and salary $\chi^2(6) = 18.603$, $p = .005$, and it is strong $\phi = 0.225$, $p = .005$. In this case the personality preference does not have any influence on salary differences but it is clearly the gender; men have higher salary women, and within gender the personality has no influence.

TABLE 5: SALARY * J/P*GENDER CROSSTABULATION

		J/P*gender				Total	
		Judging men	Judging women	Perceiving men	Perceiving women		
Salary	3999 or lower	Count	14	27	6	9	56
		% within J/P*gender	21,9%	42,9%	18,2%	37,5%	30,4%
	4000-4999	Count	13	18	8	9	48
		% within J/P*gender	20,3%	28,6%	24,2%	37,5%	26,1%
	5000+	Count	37	18	19	6	80
		% within J/P*gender	57,8%	28,6%	57,6%	25,0%	43,5%
Total	Count	64	63	33	24	184	
	% within J/P*gender	100,0%	100,0%	100,0%	100,0%	100,0%	

Objective career success – position

The test indicates a strong relationship ($\phi = 0.221$, $p = .000$) between gender and position $\chi^2(1) = 13.424$, $p = .000$. In this sample 21,3 % of top and middle managers were men.

Regarding personality differences; extraverted became top- or middle managers more often than introverted, while introverted were experts or clerks more often, $\chi^2(1) = 5.918$, $p = .015$. The association is moderate $\phi = 0.183$, $p = .015$. Sensing-Intuition $\chi^2(1) = 1.229$, $p = .268$, and Thinking-Feeling $\chi^2(1) = 0.600$, $p = .439$ preferences did not show any statistically significant influence to differences in positions of the participants. Frequencies in cross-tabulation indicate that perceiving was related to Top –and middle management position while people with judging preference became expert and clerks more often than Perceiving people. Yet there was no statistical relationship between these variables $\chi^2(1) = 2.729$, $p = .099$.

A chi-square test was conducted to determine if interaction of gender and personality preference (extraversion – introversion) is in relationship with position differences. The test indicates that there is a relationship $\chi^2(3) = 11.153$, $p = .011$, and it is very strong $\phi = 0.252$, $p = .011$. Only in case of extraverted men, the bigger portion is in managerial position; all other groups have more people in expert or clerical position. Introverted women are not well represented amongst Finnish managers. Interpreting the trends, it appears that extraversion is more important than being a man when hiring managers, see table 6.

TABLE 6: POSITION * E/I*GENDER CROSSTABULATION

		E/I*gender				Total	
		Extraverted men	Extraverted women	Introverted men	Introverted women		
Position	Top/MiddleManager	Count	29	20	10	5	64
		% within E/I*gender	52,7%	33,9%	28,6%	18,5%	36,4%
	Expert/clerk	Count	26	39	25	22	112
		% within E/I*gender	47,3%	66,1%	71,4%	81,5%	63,6%
Total	Count	55	59	35	27	176	
	% within E/I*gender	100,0%	100,0%	100,0%	100,0%	100,0%	

As can be seen by the frequencies cross tabulated in table 7 there is no significant relationship regarding position $\chi^2(3) = 5.888$, $p = .117$. Intuition is highly valued personality preference in managers.

TABLE 7: POSITION * S/N*GENDER CROSSTABULATION

		S/N*gender				Total	
		Sensing men	Sensing women	Intuitive men	Intuitive women		
Position	Top/MiddleManager	Count	21	8	18	17	64
		% within S/N*gender	39,6%	22,2%	48,6%	34,0%	36,4%
	Expert/clerk	Count	32	28	19	33	112
		% within S/N*gender	60,4%	77,8%	51,4%	66,0%	63,6%
Total	Count	53	36	37	50	176	
	% within S/N*gender	100,0%	100,0%	100,0%	100,0%	100,0%	

Thinking-feeling preference interacting with gender does not seem to be in relationship with position $\chi^2(3) = 3.918$, $p = .270$. Men are in higher position regardless the personality preference. See details below in table 8.

TABLE 8: POSITION * T/F*GENDER CROSSTABULATION

		T/F*gender				Total	
		Thinking men	Thinking women	Feeling men	Feeling women		
Position	Top/MiddleManager	Count	32	13	7	12	64
		% within T/F*gender	43,2%	30,2%	43,8%	27,9%	36,4%
	Expert/clerk	Count	42	30	9	31	112
		% within T/F*gender	56,8%	69,8%	56,2%	72,1%	63,6%
Total	Count	74	43	16	43	176	
	% within T/F*gender	100,0%	100,0%	100,0%	100,0%	100,0%	

Judging-perceiving preference interacting with gender does not seem to be in relationship with position $\chi^2(3) = 6.899, p = .075$. The frequencies indicate that perceiving women do have higher positions than judging women, see table 9. But more data is perhaps needed to confirm this.

TABLE 9: POSITION * J/P*GENDER CROSSTABULATION

		J/P*gender				Total
		Judging men	Judging women	Perceiving men	Perceiving women	
Position	Count	25	15	14	10	64
	% within J/P*gender	41,7%	23,8%	46,7%	43,5%	36,4%
Expert/clerk	Count	35	48	16	13	112
	% within J/P*gender	58,3%	76,2%	53,3%	56,5%	63,6%
Total	Count	60	63	30	23	176
	% within J/P*gender	100,0%	100,0%	100,0%	100,0%	100,0%

Subjective career success

There were no statistically significant differences between men and women and how they feel about their career success subjectively. Both genders were equally satisfied with their work relation and workload, and even though men are more successful in their career when concerning objective factors, there is no difference between men and women in their career satisfaction $t(275) = 1.470, p = .143, d = .18$, men scoring only slightly higher ($m=5.06\pm.98$) than women ($m=4.89\pm.96$).

Extraverted ($m=5.12\pm.92$) are more satisfied with their career when compared to introverted ($m=4.79\pm.94$). There was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .893$). There was a statistically significant difference in mean satisfaction with career satisfaction score between extraverts and introverts, with extraverts scoring higher than introverts, 0.33 ± 0.15 [mean \pm standard error], $t(176) = 2.218, p = .028, d = .35$. There were no other differences regarding work relations or workload.

Sensing-intuition and thinking-feeling preferences did not differ from each other regarding any of the subjective career success measurements.

Perceiving people ($m=4.65\pm 1.15$) are more satisfied with work-life balance and feel that work load is not overtly heavy when compared to judging ($m=4.24\pm 1.41$). There was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .089$). There was a statistically significant difference in mean satisfaction with work-life balance score between perceiving and judging, with perceivers scoring higher than judging, 0.41 ± 0.21 [mean \pm standard error], $t(178) = -1.911, p = .058, d = .31$. No other differences were detected between perceiving and judging. A one-way anova between subjects was conducted to compare the effect of extraversion – introversion personality differences on subjective career success when gender acts as an interaction term. There was a significant differences between the groups at the $p < .05$ level in case of satisfaction with the employer and work relation [$F(3, 176) = 2.67, p = 0.049$] and satisfaction with career [$F(3, 178) = 2.76, p = 0.044$], but no differences in satisfaction to workload [$F(3, 177) = 1.50, p = 0.212$]. As stated above the only important findings regarding extraverted-introverted difference was in career satisfaction, extraverted being more satisfied than introverted. When gender is added as an interaction term, it was found that this finding is true only in case of men. Post hoc comparisons using the Tukey HSD test indicated that extraverted men ($m=5.22\pm.99$) are more satisfied with their careers than introverted men ($m=4.65\pm 1.10$). Extraverted men ($m=5.38\pm 1.09$) were also more satisfied with their employer and work relations than introverted men ($m=4.72\pm 1.08$). It is to be noted that there was no significant difference in any other comparisons, including extraverted men and introverted women.

A one-way anova between subjects was conducted to compare the effect of other personality differences on subjective career success when gender acts as an interaction term. First, regarding sensing – intuition, there was no significant differences between the groups at the $p < .05$ level regarding satisfaction with employer and work relations [$F(3, 176) = .24, p = 0.867$], or satisfaction with workload [$F(3, 177) = 1.68, p = 0.173$], or satisfaction with career [$F(3, 178) = .13, p = 0.941$]. The effect of thinking – feeling revealed no significant differences between the groups at the $p < .05$ level regarding satisfaction with employer and work relations [$F(3, 176) = .11, p = 0.952$], or satisfaction with workload [$F(3, 177) = 1.37, p = 0.255$], or satisfaction with career [$F(3, 178) = .26, p = 0.855$]. And finally, no significant differences were found between the groups at the $p < .05$ level regarding satisfaction with employer and work relations [$F(3, 176) = .37, p = 0.773$], or satisfaction with workload [$F(3, 177) = 2.52, p = 0.059$], or satisfaction with career [$F(3, 178) = .26, p = 0.854$] when judging – perceiving preference was tested.

Discussion

The results show that men were more successful in their career when looking at objective career success measurements. Yet women were just as satisfied with career when looking subjective measurements. Within gender, extraverted men were in better positions and were earning more money than introverted men; they were also more satisfied with their career than introverted. There was no statistical difference amongst women extraverts and introverts.

The results are somewhat surprising, since Finland is quite egalitarian country yet such big differences were found in these recent work entrances' positions and salary. In a Finnish business context it appears to be very important for men to be extraverted to achieve the best positions and salary. Since introverted men are less satisfied with their career we could assume that they are not in expert positions and on lower salary by choice. The results also implicate that in some cases women just have to work harder to achieve the same salary or position as men, but in some cases it is the personality that is more important when making recruitment decisions.

Based on earlier studies regarding job performance, the results regarding personality's impact in career success are not applicable across cultures. Being extraverted and/or Intuitive manager correlated positively in European sample while in China the correlation was negative (Furnham and Stringfield, 1993). Being introverted does not appear similarly in individuals or might not be evaluated in same way when promoting people in Finland as it does in U.S. or China. Then again, similar results were found amongst British managers (Melamed, 1996) regarding extraverted and introverted men, thus it may be safe to assume that this results may be relevant in other countries as well. Europe is a very distinctive area from other continents and it would be beneficial to do comparative studies with other European countries to further career research (Mayrhofer and Schneidhofer, 2009). Of course the results may be also influenced by the answering tendencies that may differ between personalities, that is one of the limitations in this study. Other limitations include the lack of other moderating variables.

Positive psychology term, psychological capital has been recently connected to career success. It has also been found that extraverted, intuitive and thinking people regarded themselves higher in psychological capital than their counterparts introverted, sensing and feeling people (Brandt, Gomes, and Boyanova, 2011). Additionally several studies indicate that the extraversion is related to many of qualities that are close to the dimensions of psychological capital, which are optimism, self-reliance, hope and persistence. For example extraversion is related to optimism (Williams, 1992), self-esteem (Briggs, Cheek and Buss, 1980; Cheng and Furnham, 2001), sense of self-worth (Cheng and Furnham, 2001) and positive self-evaluation (Cheng and Furnham, 2001). Further, several studies indicate that extraverted people have tendency to appraise themselves higher as a leaders than introverts (Brown and Reilly, 2008, Carroll, 2010; Van Velsor and Fleenor, 1997). Thus this study confirms earlier results where extraverted have tendency to overrate themselves and have positive self-evaluations. This extraverts' high positive psychological capital actually may concretize in higher positions and better wage than with introverts with lower psychological capital. As a result this is seen also in satisfaction with employer and working relations.

In practice, the career planning and educational instructors should pay more attention to the introverted men: they are far less satisfied with their career. They have done wrong education or career decisions or they need specific training

to achieve the goals they have in their career. Or perhaps they would benefit from positivity training as the findings regarding psychological capital suggest.

Perceiving people were not as stressed over heavy work load as judging types. Traditionally judging types have dominated leadership positions due to their skills to organize and make fast decisions. As the working loads are heavily growing there may be more demand for perceiving leaders. Perceiving types are spontaneous, flexible, risk-tolerant, and they are tolerant to unambiguity. These are qualities that are needed more and more in future working life.

Overall, this study indicates that personality and gender do influence career success, both on objective level and also with satisfaction in one's career. Men are more successful than women, and this is especially in case of extraverted men. Perceiving people, regardless gender, do not stress at work as much as judging types. In this more complicated changing working life with less people to contribute, it is increasingly important to have or to develop the perceiving abilities so that one is able to work with heavy work load without stressing out about it too much.

References

- [1] Boudreau, J. W., Boswell, W. R., & Judge, T. A. (2001). Effects of Personality on Executive Career Success in the United States and Europe. *Journal of Vocational Behavior*, 58(1), 53–81.
- [2] Brandt, T., Gomes, J., & Boyanova, D. (2011). Personality and psychological capital as indicators of future job success? A multicultural comparison between three European countries. *Finnish Journal of Business Economics*, 3(11), 263–289.
- [3] Brandt, T. & Järnlström, M. (2013). Psychological capital and career mobility, British Academy of Management Conference, September 10th-12th, in Liverpool, UK.
- [4] Briggs, S.R.; Cheek, J.M., & Buss, A.H. (1980). An analysis of the self-monitoring scale. *Journal of Personality and Social Psychology*, 38(4), 679-686.
- [5] Briggs Myers, I., & McCaulley, M., (1985). *MBTI Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator*. 2nd Ed. Palo Alto: Consulting Psychologists Press Inc.
- [6] Briggs Myers, I., McCaulley, M., Quenk, N., & Hammer, A. (1998). *MBTI Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator* (3rd ed.). Palo Alto: Consulting Psychologists Press, Inc.
- [7] Brown, F.W., & Reilly, M.D. (2008). The Myers-Briggs Type Indicator and transformational leadership. *Journal of Management Development*, 28(10), 916-932.
- [8] Carroll, G.K. (2010), *An Examination of the Relationship between Personality Type, Self- Perception Accuracy and Transformational Leadership Practices of Female Hospital Leaders*, Dissertation, Bowling Green State University and OhioLINK.
- [9] Cheng, H., & Furnham, A. (2001). Attributional style and personality as predictors of happiness and mental health. *Journal of Happiness Studies*, 2, 307-327.
- [10] Childs, A., & Klimoski, R. J. (1986). Successfully predicting career success: An application of the biographical inventory. *Journal of Applied Psychology*.
- [11] Evers, a., & Sieverding, M. (2013). Why do Highly Qualified Women (Still) Earn Less? Gender Differences in Long-Term Predictors of Career Success. *Psychology of Women Quarterly*, 38(1), 93–106.
- [12] Feldman, D. C., & Ng, T. W. H. (2007). Careers: Mobility, Embeddedness, and Success. *Journal of Management*, 33(3), 350–377.
- [13] Furnham, A., & Cheng, H. (2013). Factors influencing adult earnings: Findings from a nationally representative sample. *The Journal of Socio-Economics*, (44), 120–125.
- [14] Furnham, A., & Stringfield, P. (1993). Personality and work performance: Myers-Briggs type indicator correlates of managerial performance in two cultures. *Personality and Individual Differences*, 14(1), 145–153.
- [15] Judge, T., & Kammeyer-Mueller, J. (2007). Personality and career success. *Handbook of Career Studies*, 59–78. Retrieved from http://www.sagepub.in/upm-data/15766_Chapter_4.pdf

Note: Contact author for the list of references

Constructing leadership with Generation Y¹

*Susanna Kultalahti, susanna.kultalahti@uva.fi
University of Vaasa, Department of Management
Finland*

Constructing leadership with Generation Y

Abstract

The aim of this study is to examine what kind of leadership Generation Y, or Millennials, construct when referred to positive and negative outcomes of a subordinate. In the data collection process, the method of empathy-based stories (MEBS) and social media were harnessed to reach the informants. Leaning on discourse analysis, this study recognized one meta-level discourse and four sub-discourses from altogether 504 narrations from 252 Millennials. The main voice of the informants called for acknowledgement as an individual. It can be reached through knowing the subordinate and their job; respecting them; hearing them out; and helping them to develop themselves. These findings indicate that supervisors have to stay alert to the needs of their Millennial subordinates, and balance between individual preferences, equality, and, for example, legislation.

Introduction

By the year 2020, Generation Y, or Millennials as the members of this generation are often referred to as, will be the dominant generation in working life (Erickson, 2008). However, there seems to be a call for research concerning the working preferences of Millennials. Many streams of research have been involved in generational discussion and provided their own contribution. Nevertheless, contributions are scattered, and there is a need to create more understanding on the matter. (Joshi, Dencker, Franz & Martocchio 2010.) Further, the lack of empirical data and a wide variety of normative, non-academic texts (e.g. blogs, Internet sources) weaken the reliability and usefulness of this information (Myers and Sadaghiani, 2010).

The purpose of this study is to gain more understanding on what kind of leadership Millennials construct when referred to positive and negative outcomes of a subordinate. The study follows the social constructivist view (Berger and Luckmann, 1994). This study interprets Generation Y and leadership as socially constructed phenomena. Also the research design and the researcher's relationship to the data, as well as the perception of language, resembles with the social constructivist view. These are discussed more in the section of research design.

Generation Y

Regardless of the many efforts by different studies, there is no unanimous view of the definite birth years of Generation Y, or any other generation for that matter. Smola and Sutton (2002) have used the timespan from 1979 to 1994; Arsenault (2004) and Kupperschmidt (2006) on the other hand, have defined Generation Y to have been born in 1981–2000, to mention a few categories.

Generational characteristics, and thus generational differences, are tracked to the events in childhood and early adulthood that shape the generation's mind-set (Parry and Urwin, 2011). However, there are differing views when examining the generational characteristics, *i.e.* do generations differ from each other to a great extent (see e.g. Giancola, 2008), even though some scholars have identified the differences (e.g. Gibson et al., 2009; Sullivan et al., 2009; Chen and Choi, 2008; D'Amato and Herzfeldt, 2008).

Generation Y is born and raised in the times of dual-career families and protective parenting, but, on the other hand, they have also seen lives ending unexpectedly, e.g. in natural disasters, school shootings, and terrorist attacks (Welsh and Brazina, 2010). These have all shaped the beliefs, values, perceptions, and attitudes of Generation Y (Macky *et al.*, 2008; Smola and Sutton, 2002). Also the advancements in technology have shaped Millennials to be competent when it comes to using technology in various ways (Arsenault, 2002). This uniquely created mind-set is reflected in the leadership preferences as well (Arsenault, 2002).

Nevertheless, Millennials are said to appreciate social connections and social working (Myers and Sadaghiani, 2010), flexibility (Behrstock-Sherratt and Coggshall, 2010), work–life balance (Cennamo and Gardner, 2008), training and development (Sturges *et al.*, 2002) and a job description that suits their needs (De Hau and De

Vos, 2010). Further, they would like to work in a supportive environment that offers them feedback (Martin, 2005) and lets them feel appreciated (Hurst and Good, 2009). They are not afraid of seeing changes around them, on the contrary, they are afraid that things do not change (Martin, 2005). It has also been proposed that Millennials are seen as demanding and high maintenance employees (Zopiatis *et al.* 2012; Hira, 2007), although Weyland (2011) concluded that engaging and managing Generation Y requires only new ways of thinking.

These preferences are heavily affected by the actions of the supervisor, especially the closest supervisor. Jamrog (2002) has even stated that Millennials are not afraid of the supervisor being too close, and the supervisor plays an important role for Millennials (*e.g.* Smith, 2010; Hurst & Good, 2009; Martin, 2005; Jamrog, 2002). Overall generational characteristics have been neglected and underappreciated both in research and in practice (Westerman and Yamamura, 2007; Arsenault, 2004; Kupperschmidt, 2000), and Millennials in Finland have not gained too much attention. Also the normative nature of the literature on Generation Y needs to be strengthened with empirical evidence. Thus, this study seeks to contribute to generational studies and especially provide new information on the leadership preferences of Generation Y.

Research design

This study utilizes the method of empathy-based stories (MEBS) in the data collection process. Also the term passive role-playing has been used when referring to MEBS (Eskola, 1991). MEBS utilizes the same patterns people use in their everyday actions (consideration, speculation), as the method sees the informant as an active individual. (Eskola, 1997: 12–14.) By enhancing these patterns, and because the reactions of an individual are not random but based on one's own experiences, beliefs, expectations, and perceptions, MEBS is aiming to reveal how informants construe the topic at hand. (Eskola 1997: 15.)

In MEBS, the cores of the data gathering process are the scripts. Usually there has to be at least two different scripts, as one crucial factor is varied between them. However, the frame of the script and other issues that are mentioned in them should stay relatively stable in order for the researcher to be able to concentrate on the variation between the stories. (Eskola 1997: 16–18.) MEBS was a suitable choice in this data gathering process, as it has advantages in mapping out a research area or conducting more or less exploratory research (Tuorila and Koistinen, 2010; Juntunen and Saarti, 2000).

Regarding the scripts in this study, there are two that concern leadership and supervisory issues. Quite often it is justified to vary positive and negative aspects in the study (see *e.g.* Juntunen and Saarti, 2000).

Positive script: Imagine that one day Sanna comes home from work. She feels herself energetic. She is happy and glad that she has her job, just the way it is, and she is not considering applying for some other job. She feels truly engaged to her employer and it is always nice to go to work in the mornings. What has happened between Sanna and her supervisor, when Sanna is feeling like this and she likes her work?

Negative script: Imagine that one day Sanna comes home from work. She is really irritated and bored. She does not feel like working at all, and she has started to look for some other job, as it feels difficult to go to work in the mornings. What has happened between Sanna and her supervisor, when Sanna is feeling like this and her work is like watching paint dry?

The data were gathered in 2012. They are consisted of altogether 504 short stories written by 252 Millennials. In order to reach the informants, social media (namely Facebook) has been utilized. The scripts were created to an electronic platform, and the link to this questionnaire was shared in Facebook altogether three times. In addition, some e-mailing lists were used as well. The study uses also snowball method, since the link was asked to share forward. The responses took place in an external platform, hence the informants were not able to see each other's stories.

Analyzing process and background perceptions

At first and as a starting point for the analysis, the answers, which varied from one short sentence to approximately 150 words in length, were coded with NVivo and analyzed using the traditional content analysis method. Thus, the main themes and issues became apparent. At second, the longest stories were selected for closer look. This sample

included 19 positive stories and 17 negative stories. These stories were further coded and marked using different colors. Based on this phase of the analysis and careful reading and consideration, five discourses were finally distinguished from the stories (please see the next chapter).

I decided to concentrate to examine *how* the informants write about supervisor issues rather than to evaluate the level of truth as such (see Eskola 1997: 96–97 or Eskola 1991: 20–21). Further, the interest is not merely in similarities or patterns in the material, but also in dissimilarities between the informants' stories (i.e. multi-voiced view).

I lean on the social constructionism view (see Berger and Luckmann 1967), in a sense that in this study the language is seen as a part of the reality rather than only a mediator of reality or a reflection of it (Eskola: 1995: 288). Additionally, I apply here discourse analysis as a research method that is more like a loose framework or a guiding principle instead of strict regulations (Potter and Wetherell, 1990). I further relate to the views concerning discourse analysis and the use of language by Alvesson and Kärreman (2000). They call for a “*discourse-near*” approach, which they further identify as discursive pragmatism. It does not diminish the meaning of language or language use, but it takes a step towards more speculative nature of discourse analysis, which allows discussing indications and conclusions behind the discursive material. Moreover, the roots and antecedents of this particular approach are the same as in any discursive view. The authors call for pragmatism in methodological issues, and they remind that, in the end, the research interest defines the most suitable approach. (Alvesson and Kärreman, 2000.)

Adopting the views by Alvesson and Kärreman (2000) lead to interpret the possible meanings behind the actual language (text) the informants used. However, the main interest concerns the texts themselves, but I have tried to work towards interpretations and conclusions based on the material. In relation to this approach, I respect the richness of social reality and, thus, will not try to underestimate it. On the contrary, one of the objectives is to aim to capture the different viewpoints, contradictions, and tensions. This led me to reflect upon the narrations and adopt a speculative view when presenting the findings. Overall, I am giving voice to Millennials' narrations in this study, but I take the next step as well when analyzing, interpreting, and concluding. I consider this as the relationship between me as a researcher and the material for Millennials.

Discourses

In this study, I wanted to examine the perceptions of especially the closest supervisor and supervisor work as well as the relationship between Millennial and her/his supervisor, and how these are construed according to the stories. Thus, mentioning the supervisor in the scripts was intentional and considered. In fact, it was the purpose of this study to see, what kind of issues the informants attach to the supervisor and how they narrate supervisor's actions both in good and bad. All of the informants treated the scripts the way I expected them to, *i.e.* referred to supervisor and explained her/his actions, such as receiving feedback, respect, or rewards (both material rewards such as pay rises, salary, and bonuses; and non-material like career opportunities and more responsibilities) from the supervisor. Also, especially in based on the negative scripts, unevenly distributed workload was pointed out as a negative action of the supervisor. Only a few informants mentioned straightforwardly that the protagonist's feelings are a result of something other than the actions of the supervisor, for example the work itself.

In the next section I present the strongest discourses: one meta-level discourse and four other discourses that complement each other. They are somewhat overlapping, but I consider it as a natural consequence, as the themes the informants mentioned are complex, as is the supervisor work in practice, too.

Acknowledge me as an individual!

The strong meta-level discourse deals with acknowledgement. A story-line in the narrations more or less handled how feeling acknowledged was the key for the protagonist to feel herself well and happy. This was demonstrated with the supervisor's ability to offer tailor-made solutions based on the protagonist's capabilities, desire, and life situations. There is a need to feel special in the supervisor's eye, and have a feeling that the supervisor can be trusted to take care of the protagonist.

“The relationship between Sanna and her supervisor is between two adults rather than between a boss and a subordinate. They both respect each other and the other person’s viewpoints, wishes, expectations, and suggestions. Communication between Sanna and her supervisor is open and confidential; the supervisor is easy to approach and precise. The supervisor seizes on problems and keeps her/him promises, and does not diminish them. The supervisor is skillful on knowing people, recognizes Sanna’s personality and can thus give Sanna right kind of feedback and opportunities for development. The supervisor is also genuinely keen on the well-being of Sanna and other employees, and sees the personnel as one of the most important resources in the company.”

Further, the supervisor was described to be interested in the protagonist’s life and well-being, and showed that by discussing with the protagonist, encouraging her, and ensuring that everything was fine with her. Giving recognition of her efforts and being equal with all of the employees was also a matter that was relatively often discussed. In the case of the protagonist feeling unwell or being disappointed or bored with her job, it is, according to the stories, in the concern of the supervisor to provide help and some kind of solution. This was assumed rather automatically, as it was an obvious duty of the supervisor.

“Sanna feels that she is drudging and drudging, but the employer/supervisor does not notice her efforts enough. She feels she is doing useless work, “it doesn’t matter whether I’m here or not”, or she might be bitter to the employer “they don’t even realize that they couldn’t cope without me” “.

The next four discourses further develop and illustrate the meta-discourse.

Know me and my job!

Some of the narrations describe how the supervisor knows the subordinate and has personal ties with her. In these cases, the relationship is described as informal, and that the supervisor and the subordinate might even be friends. Further, the personal life and family matters are in these cases taken into account and the connection between work and private life is catered by the supervisor, or at least the supervisor is considering the individual matters (skills, family, different situations at work etc.) when making decisions. However, there are also differing views. Some of the informants write how the supervisor and the subordinate are not too close and the supervisor should take her/his position as a true leader. Nevertheless, the view that these parties are close and know each other also in a personal level is more commonly used and stronger.

In order for the supervisor to be able to allocate the resources of every individual in a fair and suitable manner, it is highlighted in the stories that the supervisor is, first of all, interested in the subordinate and, second, is willing to sacrifice some time to get to know the work, the person, and the way she/he works and performs. Interestingly, the stories describe how the supervisor has given interesting tasks to work with, and that the supervisor has targeted the skills and resources correctly. Some of the informants have mentioned that this is the responsible way to act.

According to the stories, the wrong kind of allocation might also lead to the resources and skills going to waste in case the supervisor lets this to happen. On the other hand, the informants also write about uneven workload and too many tasks and responsibilities, which may result in stress or intention to quit. In relation to knowing the subordinate not only in a personal level but professionally as well, the informants wrote relatively lot about work allocation. The tone of these stories was that the supervisor has given the tasks or has ignored this, or that the protagonist has gotten suitable tasks from her supervisor. This might indicate that the level of self-direction could be relatively low. At the same time, the informants might also mean that they consider work allocation as a task that the supervisor is responsible of. It seems that in the stories the protagonist is happy to receive help and instructions from her supervisor, and that she is not afraid of even direct orders. In fact, they have led to positive outcomes according to the stories.

“The supervisor is responsible as a boss and knows not only their own field, but has had the ability to structure Sanna’s job description clearly and has let Sanna to have an influence on her own work. In the end the supervisor is responsible. The supervisor genuinely cares about how Sanna is managing her work and knows if there is something in other parts of her life that has an effect on taking care of the work. The fine balance between the freedom of the employee and the responsibility of the supervisor or, the other extreme, neglect, is in order in this case.”

Respect me!

The informants discuss a lot about being respected, heard, and appreciated not only as an employee but also their efforts should be noted. They mention both material (*e.g.* pay rises, bonuses) as well as non-material (*e.g.* career development, new tasks) rewards, but the mainly discussed issues emphasize the meaning of thanking and encouraging feedback. In fact, thanking played a big role in this particular discourse. When considering the demands or wishes in the narrations, the informants were really modest. They were not expecting big rewards, at least not in monetary terms. They described how plain “thank you” might be sufficient. It was also a matter of recognizing the efforts and results, but they were merely expecting the supervisor to make clear that the protagonist’s work has been noted.

The informants refer to respecting on a relatively abstract level. It might also indicate that they automatically expect to receive respect from their supervisor, although they emphasize this matter heavily in their stories. For the informants, it is not enough to know in their heart how they are performing, but they want to hear and feel it from the supervisor in a genuine and honest way. Thus, this particular discourse is probably the most overlapping with the meta-level discourse.

Overall, respecting also deals with knowing what you are doing, *i.e.* that the subordinate is on the right track and is doing what is expected from her/him. The narrations imply that when the supervisor is giving feedback and showing respect in any way, it is a clear hint for the subordinate regarding her/his performance. However, this process seems problematic, as the informants were not able to concretely identify, what makes the supervisor respectful in the end, even though they mention thanking, giving feedback, but also showing genuine respect. Nevertheless, especially based on the negative scripts, unfair comments, inappropriate supervisor behavior, or treating the protagonist only as a “robot”, causes feelings of disrespect.

Nevertheless, some kind of multi-voiced view can be recognized in this discourse as well. Some of the informants mention sufficient salaries and salaries overall, as well as pay rise. However, there is another opinion relatively heavily emphasized, according to which the informants are stating that the salary or money overall does not have an effect on how person perceives her work, and that money is not an issue when considering positive and negative aspects of one’s work. However, in some cases the mentions of money had to do with, for example, pay rises that were promised but never conducted, or otherwise unfairly low salary.

“The supervisor does everything they can for Sanna and that is why Sanna feels herself precious and significant as an employee.”

“Sanna feels that she is dignified and doing an important job, the supervisor enables proper mental and physical conditions at work.”

“Employees’ strengths or skills are not being utilized, neither does the supervisor respect the employees or not at least all of them. Sanna does not feel she is receiving respect, help or encouragement, on the contrary, only negative feedback and the supervisor keeps hurrying her up.”

Hear me say!

Open and regular communication played a big role in the Millennials’ narrations. The narrations referred to both formal and informal discussions with the supervisor. There seems to occur some kind of reciprocity, where both of the parties listen to each other and try to understand the other person’s point of view, as the stories strongly described. Even though the views might not be unanimous, there is mutual respect between the parties: the protagonist is able to speak her mind and she knows that she will be heard. On the other hand, a challenging dialogical connection or an ignorant supervisor might lead to, according to the stories, a situation where the protagonist feels unhappy and this unsatisfying relationship with the supervisor results in feelings of insecurity, unreliability, and almost betrayed.

“The supervisor and Sanna have an open and free dialogical connection, and they both appreciate each other as an employee. The both trust that what has been agreed on, stays, and both of them take care of their own duties. Sanna and her colleagues have an influence on the decisions made in the work community and regarding its development.”

The informants keep mentioning being in good terms with the supervisor and having a pleasant relationship with the supervisor. However, there exists some kind of multi-voiced view. On the one hand, some of the informants

wrote about having personal ties with the supervisors and talking about private life as well. They also mentioned that the supervisor talks about her/his own life, so it is easier for the protagonist to tell about hers. As a result, these informants wish that their private life and the changing situations are taken into account in the workplace. These informants would like to see the relationship with their supervisor as an “*equal relationship*”, or “*between two adults, not with a supervisor and a subordinate*”. On the other hand, a few of the respondents are describing somewhat an opposite relationship, where the ties are not too close and the supervisor remains more distant.

Help me to develop myself!

The stories quite often mentioned opportunities for development. This might indicate that the informants reflect on their fear of stagnation. It seems that the informants see the supervisor as a coach or a personal trainer, who provides them with enough challenges and helps them to gain skills as well as opportunities for career advancement. These stories also reveal the informants’ perceptions and expectations concerning the working life. It might seem that they would like to take advantage of their supervisor’s experience and skills in leading people, and thus require more hands-on management. Moreover, in their stories the informants see the supervisor as a career facilitator, and that the supervisor should take this responsibility serious. In fact, they seem to take this for granted, as an automatic process embedded in the relationship with the supervisor. Also, according to the stories, in a situation of too much routine work and boring tasks, the supervisor should act and exploit the capabilities of the subordinate more efficiently in order to prevent too much stress or haste.

Based on the stories, assistance in development is required from the supervisor and that the supervisor takes responsibility of the development issues. The threat of getting bored with the job or getting stuck on the whole seems to be threatening. The balance between too less or too much challenges seems to be delicate, and the supervisor really has to know what the subordinates want. In the tailpieces, the protagonist was disappointed in case there were no equal opportunities to receive training or if the supervisor was not interested in taking responsibility of the development of the subordinates. The protagonist was also described frustrated when her skills and capabilities go to waste in too easy work. Concrete instructions and feedback, discussions, flexibility, and attention from the supervisor are mentioned in the stories. Based on them, neglect from the supervisor and supervisor not being keen on the development of the subordinate, are referred in the negative stories.

“Sanna’s supervisor saw potential in the employee and suggested special training for her alongside her work. It was a training that would last for a year, after which Sanna would get a special certificate for new duties. Sanna got some time to think about it, discuss about it at home and then she decided to take part in the training alongside the work as her supervisor suggested. Now the training is completed and the new duties that require this certificate seem to be very interesting and challenging”.

“Sanna feels that she is not getting clear instructions from the supervisor, no responsibilities and she is not appreciated as an expert in her field.”

Discussion

Even though the data gathering method in this study was rather innovative and somewhat experimental, the stories provided were rich and interesting. The discourses presented in this paper were expected to some extent, but the level of discussion was rather straightforward and clear. As described in the previous section, there were altogether five discourses found from the stories, out of which one was identified as the meta-level discourse. Some of the discourses are partly overlapping, as they deal with same kind of issues: the main voice from the stories repeated acknowledgement and attention. The discourses were, a bit surprisingly, relatively unanimous. Figure 1. illustrates the discourses and their relationship to the meta-level discourse. The four sub-discourses could be seen as well as overlapping with each other. However, in this study they are seen as building the meta-level discourse concerning acknowledgement.

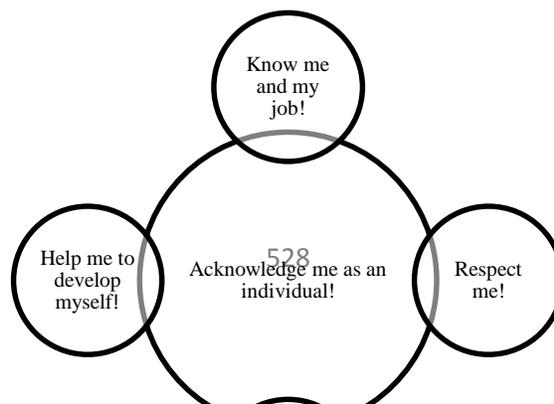


FIG 1. ILLUSTRATION OF THE DISCOURSES.

Regardless of the relatively innovative research setting when studying Generation Y, the findings were in line with previous studies. For example, recognition is important for Millennials (Gursoy *et al.*, 2008) and they value respect (Eisner, 2005) as well as personal attention from the supervisor (Gursoy *et al.*, 2008). Further, Zopiatis *et al.* (2012) concluded that while Millennials enjoy social activities and relationships, they still want to remain a high level of individuality. Further, the need for constant feedback was found also by Martin (2005).

However, there were some multi-voiced views as well. The strongest ones dealt with salary and knowing the supervisor personally. When describing motivating supervisory work, monetary issues did not gain a lot of attention from the informants, but there were some contradictory notions. A few of the stories heavily emphasized the inferior meaning of salary and money, but some single informants mentioned pay rises, monetary perks, and salaries. On the other hand, the opposite views were strongly saying that money is not an issue in motivating people, and that it does not have an effect on how one perceives her/his work. Further, there was discrepancy regarding the depth of relationship with the supervisor. On the one hand, the issues the informants discussed were in a level where the supervisor really has to know the subordinate on a personal level and regarding the performance and the work tasks as well. Without this kind of affection or interest, it is not possible to allocate the tasks in a way that would consider the skills, competences, and the situation in the personal life of the subordinate. On the other hand, some single answers pointed out that there does not have to occur this kind of deep relationship in order for the protagonist to feel good, and that the supervisor and the subordinate cannot be that close.

Further, the informants seem to write in a humble and modest way. In fact, they do not demand extraordinary solutions or extreme things. They even mention how receiving a simple recognition, such as thanks, from the supervisor is enough. Also the supervisor being in a good mood was sufficient for some. This might indicate that the informants reflect on the behavior of the supervisor, and that it has an effect on their spirit as well. Thus, the supervisor should have to be really alert to and sensitive to the messages the subordinate is sending.

The meta-discourse *Acknowledge me as an individual* might seem trivial at first. However, the material and this discourse strongly manifest that supervisors should pay attention to individual traits, efforts, experiences, and expectations. It is not an easy task, but it is what Generation Y needs. It might lead to a situation where we cannot take generational stereotypes for granted, as there is heterogeneity in the group. However, the almost collective opinion of Generation Y seems to be that they should be taken as individuals, *i.e.* as they are. The four other discourses support this view and further are in line with the meta-discourse. The different voices are relatively few but strong. This multi-voiced view inside Generation Y is highly interesting, as media, for example, has tried to put all of the Millennials in one group with several strong stereotypes.

Overall, most of the informants seem to be saying that the supervisor needs to be interested in the subordinate. Even though the views were not unanimous all the way, the message is quite clear. *Acknowledging one as an individual* is a difficult and time-consuming task. However, it leaves some room for the individual characteristics of the Generation Y, as it cannot be assumed that every Millennial would like to be treated in the same way. In fact, the supervisor needs to be really alert and sensitive in listening to the millennial subordinate: is it the pay or the amount of holidays that is in the interest of the subordinate? What is the voice of this particular subordinate? Does the supervisor have to stay distant or open up also her/his own private life in order to get close to the one of the subordinate? The voice of Generation Y is somewhat united in this discourse. In order to be fulfilled, it requires consideration, time, and efforts from the supervisor to get to a level where she/he can genuinely treat the subordinates the way they prefer. On a more practical level, it demands first of all conversations with the subordinates and careful listening and understanding, not to mention that it takes time to get to the core.

The narrations that built this paper were relatively expected. However, there was one voice that was a bit surprising, and which is scattered in different discourses. The informants were concerned about equality and fair treatment between each other. It cannot be concluded for sure whether they value even opportunities and possibilities, or are they plainly selfish and looking after their own interest or even evaluate their performance higher than anyone else's. Thus, they might feel obliged to rewards and further feel different perks as important. Interestingly, they did not describe solely the protagonist, but placed her in the wider work community. This was seen in the stories, where the informants wrote about the whole work community and how the supervisor treats all of the employees, not only the protagonist in the stories. It, on the other hand, seems very unselfish. This might be due to Millennials being very social and appreciating a pleasant work community (Eisner, 2005; Smola and Sutton, 2002). Nevertheless, they want to be acknowledged for their real efforts and do not want to suffer from someone else's mistakes or poor performance. They were not discussing a scenario, where the protagonist was underperforming or someone was saving her skin. Thus, the root cause for this view remains blurry.

Conclusions

The leadership that the informants constructed is about being interested in the subordinate and listening to her/him carefully. The supervisor as her/his best knows the Millennial subordinate personally, or more like how personally the Millennial wants to be known. It all comes down to individual characteristics and preferences that the supervisor needs to be aware of. The supervisor should take care of the development needs of the subordinate by giving encouraging and constructive feedback, and distributing duties that suit the needs of the employee. This should occur in an open and pleasant atmosphere, for which the supervisor should have a special interest in: a willingness to create a work community that is supportive, nurturing, and safe. Overall, the supervisor is sort of a catalyst or a personal trainer in the Millennial's career that the Millennial is willing to respect and appreciate. Supervisor's actions are also manifested in equal and fair treatment

This is probably the first study to take a look at how the Millennials construe leadership and how they actually describe positive and negative actions of the supervisor. The five discourses shed a light on Millennials' preferences and expectations concerning their supervisor. The discourses, based on the stories by 252 Millennials, quite clearly state that the most of all the supervisor has to build the level with the Millennial subordinate based on individualism and individual consideration. This leads to somewhat tailor-made relationship between the subordinate and the supervisor.

This meta-discourse, *Acknowledge me as an individual*, becomes even more meaningful when considering the inevitable consequences where this voice of Generation Y leads. Further, when placing this to a larger picture, the supervisor needs processes and systems that support these actions. Discussing and getting into the roots of the subordinate's behavior takes time, which is usually non-existing in today's working life. Also rewarding systems and work time allocations should leave room and flexibility for the supervisor's consideration. However, the voice of Millennials also calls for equality and fairness. Where is the balance between individual wishes and treating everyone fairly? Millennials might give the answer themselves: they clearly voice open communication and communality.

Some previous studies (*e.g.* Gursoy *et al.* 2008; Martin, 2005) have concluded that the supervisor is important for the Millennials and that they demand different things from the supervisor than older generations. As qualitative research concerning Generation Y has been scarce, future research could take a look at to which extent the Millennials pay attention to supervisor's role. However, there are no studies that map out the working life as a whole from the Generation Y's point of view. Thus, it would be beneficial to see, what are the issues the Millennials actually see important regarding working life. Also the inevitable effects on HR should be noted. This study suggests that HR should provide supervisors processes and tools that fit the organization's needs, and that supervisors should also be trained for their supervisor duties. Further, recruiting and selecting supervisors becomes even more important task and responsibility of HR.

After this mapping of the territory, more information is needed concerning the Millennials' expectations for leadership. This study could be further developed by in-depth interviews. It would also be relevant to study Millennials' supervisors and their perceptions of what they think Millennials need. This would take the field forward and offer more empirical evidence on Generation Y.

References

- [1] Alvesson, M. & Kärreman, D. (2000). Taking the linguistic turn in organizational research: challenges, responses, consequences. *The Journal of Applied Behavioral Science*, 36(2), 136–158.
- [2] Arsenault, P. M. (2004). Validating Generational Differences. A Legitimate Diversity and Leadership Issue. *The Leadership & Organization Development Journal* 25(2), 124–141.
- [3] Behrstock-Sherratt, E. & Coggshall, J. G. (2010). Realizing the promise of Generation Y. *Educational Leadership*, 67(8), 28–34.
- [4] Berger, P. L. & Luckmann, T. (1966). *The Social Construction of Reality. A Treatise in the Sociology of Knowledge*. Doubleday & Company, Inc., Garden City, New York, USA.
- [5] Cennamo, L. & Gardner, D. (2008). Generation differences in work values, outcomes and person-organisation values fit. *Journal of Managerial Psychology*, 23(8), 891–906.
- [6] Chen, P. and Choi, Y. (2008). Generational differences in work values: a study of hospitality management. *International Journal of Contemporary Hospitality Management*, 20(6), 595–615.
- [7] D’Amato, A. and Herzfeldt, R. (2008). Learning orientation, organizational commitment and talent retention across generations: a study of European managers. *Journal of Managerial Psychology* 23(8), 929–953.
- [8] De Hau, S. & De Vos, A. (2010). Millennials’ Career Perspective and Psychological Contract Expectations: Does the Recession Lead to Lowered Expectations??. *Journal of Business Psychology*, 25, 293–302.
- [9] Eisner, S. P. (2005). Managing Generation Y. *Sam Advanced Management Journal*, 70(4), 4–15.
- [10] Eskola, J. (1997). *Eläytymismenetelmäopas [Guide to method of empathy-based stories]*. University of Tampere, Tampere, Finland.
- [11] Eskola, J. (1995). Diskurssianalyysi – uusi paradigma? [Discourse analysis – a new paradigm?]. In: Eskola, J., Mäkelä, J. & Suoranta, J., Eds., *Ihmistieteiden 1990-luvun metodologiaa etsimässä [Searching for the 1990’s methodology in anthropology]*. University of Lapland’s pedagogical publications C 8. Rovaniemi, Finland.
- [12] Eskola, J. (1991). *Eläytymismenetelmän käyttö sosiaalitutkimuksessa [Using the method of empathy-based stories in social research]*. Working reports, B:35. The department of Sociology and Social psychology, University of Tampere, Finland.
- [13] Giancola, F. (2008). Should Generation Profiles Influence Rewards Strategy?. *Employee Relations Law Journal*, 34(1), 56–68.
- [14] Gibson W. J., Greenwood, A. R. and Murphy Jr, F. E. (2009). Generational differences in the workplace: personal values, behaviors and popular beliefs. *Journal of Diversity Management*, 4(3), 1–7.
- [15] Ginsburg, G. P. (1979). The effective use of role-playing in social psychology research, In: Ginsburg, GP, Ed., *Emerging Strategies in Social Psychological Research*, Wiley, New York.

Contact author for the full list of references.

End Notes

¹ The article is proof-read if accepted.

**To Study the Concept of Transformational and Transactional Leadership on Employees
with Special Reference to Hindustan Computer Limited (HCL) Noida**

*Rajeshwari Narendran(Associate Professor), rajeshwari18@yahoo.com
Shreshtha Dabral(Research Scholar), shreshtha.dabral@gmail.com
Mohan Lal Sukhadia University Udaipur, India*

To Study the Concept of Transformational and Transactional Leadership on Employees with Special Reference to Hindustan Computer Limited (HCL) Noida

Abstract

This study evaluates that the criteria of transformational and transactional leadership which was explained by Bass (1985) earlier and how these criteria, their role have influence on select outcome variables and employee attitudes with special reference to HCL Noida. Using Multifactor Leadership Questionnaire (MLQ 5x) the data was collected from a sample of 255 employees from a large multinational organization in India. The research results show that transformational and transactional leadership have significant influence with extra effort of subordinate, effectiveness of the leadership, satisfaction with the leader and attrition rate of employees. The 2 factor active-passive model of leadership is being supported by this research which will also help to different researchers in coming time. This research has also tried to clear out the concept of transformational and transactional leadership in simple manner and how these leaderships can influence the morale of employees which can in turn lead to the overall growth of the organization.

Keywords - Transformational leadership, transactional leadership, active leadership, passive leadership, leader effectiveness.

Introduction

Transformational leadership has become the most important foundation of efficient leadership in the organizational structure. Burns (1997) gave the concept of transforming and transactional leadership was introduced for the treatment of political leadership. Furthering the concept of Burns, Bass (1985) has given an inclusive theory of leadership using transformational term, he anticipated that such leaders are change agents and they rise and change the attitudes, beliefs and motives of followers to a higher level.

But transactional leaders are different; they centered on exchange of resources for valuable results. But Bass has different view; transformational and transactional leaders are dissimilar but not mutually exclusive and the best leaders are both transformational and transactional. Full-range leadership theory (FRLT) [Bass et al. (1978); Bass et al. (1997)] was suggested after several changes in the theory of Bass (1985). Later Bass and Avolio [Bass et al. (1995); Bass et al. (2004)] together developed Multifactor Leadership Questionnaire to calculate leadership proportions and results.

In today's business scenario the need of research on leadership has witnessed the importance of transformational leadership. Research shows that retaining human resource has become a very important concern in today's business situation and the transformational leadership may initiate the development of intellectual capital required to meet organizational changes [Bass et al. (1997); Drucker et al. (1999); Herman et al. (1997); Hitt et al. (2000); Ireland et al. (1999)]

Several researches have shown that transformational leadership gives rise to higher effectiveness and thus satisfaction of subordinates than any other leadership styles Hater et al. (1988). Lower employee attrition rate comes when satisfaction factor of subordinate increases as well as trust in leadership also shows an increase Burns (1978), as a group the performance also shows an increase. Subordinates also start putting their complete efforts Seltzer et al. (1990).

In Indian context the research material related to transformational and transactional leadership model of Bass (1985) is rare. So the main objective of this paper is to analyze the relationship between transformational and transactional leadership and their effect on employees with special reference to HCL Noida.

1. The Research Hypotheses

On the basis of above statements following hypothesis have been taken as the base for the empirical study:

Hypothesis-1(a): Transformational leadership will have significant positive influence when the follower puts extra effort, the effectiveness of the leader and follower's satisfaction with the leader and negative influence on the attrition rate of the employees.

Hypothesis-1(b) The four criteria of transformational leadership will have significant positive influence on extra effort of the follower, leader's effectiveness and follower's satisfaction with the leader and significant negative influence

on the attrition rate of the employees. One more objective of this research was to illustrate the relative importance of leadership criteria to elucidate the selected outcome variables with special reference to HCL Noida

Hypethesis-2: That Transformational leadership will have significant impact of leadership criteria (extra effort of subordinates, effectiveness of leader, and satisfaction of subordinate with the leader) in controlling the transactional leadership.

Hypotesis-3: The Active leadership will have significant influence of leadership outcome variables (extra effort of subordinates, effectiveness of leader, and satisfaction of subordinate with the leader) in controlling the passive leadership.

2. Methods

Data for this study was collected from a large technology based multinational organization located at Noida, operating in India and overseas for over two decades. Respondents in the sample were selected predominantly on convenience method of sampling though attention was paid to include respondents from major divisions of the company. Data was collected from 255 employees working in different divisions of the organization. The sample consisted of 141 male and 114 female respondents with an average age of 26 years and average work experience of 3 years and 8 months. This study satisfied the rules proposed by Thorndike Seltzer et al. (1990) with regard to the sample size.

3. Measures

3.1. Leadership dimensions and outcome variable

In this research we have used the Multifactor Leadership Questionnaire (MLQ 5x-Short) which was developed by Bass (1995) and Avolio (2004). It is made of 45 items which are used to measure transformational leadership, transactional leadership and leadership outcome variables.

This Questionnaire also helped to find out the four dimensions of transformational leadership which are: Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized consideration; and the three components of transactional leadership: Contingent Reward, Management-by-Exception-Active, and Management-by-Exception-Passive; and a non-leadership dimension – Laissez-faire leadership. Major part of the questionnaire consisted of those questions which tried to measure the above points. The minor part of the questionnaire measured the following outcome variables: Extra Effort of the subordinate, Effectiveness of the leader, and Satisfaction of subordinate with the leader.

The range for the reliability leadership factor scale is from 0.75 to 0.95. To maintain the internal consistency the reliability for all scales have exceeded the standard cut offs. As per the given calculations the Cronbachs alpha reliability coefficients for transformational leadership scale in this research are 0.92 and for transactional leadership it is ranged between 0.68 and 0.81, and for laissez-faire leadership it is 0.78 for the overall transformational leadership scale the Cronbach alpha reliability coefficients are 0.92.

3.2. Attrition rate criteria

Attrition rate criteria of employees were measured by a 3-item 7-point scale developed by Camman et al. (1983). For this scale this research reported a Cronbach alpha reliability coefficient of 0.88.

3.3. Analysis of the Data

To evaluate the reliability of instruments used in this study Cronbach alpha coefficient of internal consistency has been used. To understand the criteria of leadership Exploratory factor analysis was done. For studying the relationships between variables Correlation and regression analysis were used. The amplification effects of transformational and transactional leadership were analyzed by Hierarchical regression analyses.

4. Results Discussion

4.1. Leadership criteria's and their relationships

Correlation relationship between eight leadership criteria and their reliabilities and descriptive statistics are given in Table-1.

The analyzed results below show that all the transformational leadership factors and two factors of transactional leadership (contingent reward and management-by-exception-active) were having significant correlation with each other. ($p < 0.01$)

TABLE-1: DESCRIPTIVE STATISTIC DATA, RELIABILITIES AND CORRELATIONS FOR LEADERSHIP VARIABLES

S No.	Variables	Mean	S.D	1	2	3	4	5	6	7	8	9	10
1	Idealized influence	2.62	0.74	(.81)									
2	Inspirational Motivational	2.74	0.79	0.80**	(0.73)								
3	Intellectual Stimulation	2.58	0.76	0.76**	0.65**	(0.66)							
4	Individual Consideration	2.48	0.87	.78**	0.65**	0.72**	(0.69)						
5	Transformational leadership	2.60	0.71	0.94**	0.87**	0.87**	0.88**	(0.92)					
6	Contingent reward	2.66	0.80	0.81**	0.72**	0.72**	0.70**	0.86**	(0.73)				
7	Management by exception (Active)	2.66	0.78	0.58**	0.55**	0.44**	0.46**	0.57**	0.56**	(0.63)			
8	Management by exception (passive)	1.66	0.96	-0.09	-0.15*	-0.1	-0.07	-0.10	-0.05	0.07	(0.67)		
9	Transactional Leadership	2.34	0.58	0.62**	0.52**	0.51**	0.50**	0.61**	0.72**	0.76**	0.58**	(0.59)	
10	Laissez – Faire Leadership	1.38	1.09	-0.20**	-0.22**	-0.20**	-0.24**	-0.22**	-0.20**	0.02	0.70**	0.31**	(0.79)

See Cronbach's alpha reliabilities in parentheses along the diagonal.

** Note $p < .01$

From the above table it can be observed that the Management-by-exception-passive was sharing a positive correlation only with laissez-faire leadership. A positive correlation was seen between Laissez-faire leadership with the overall transactional leadership and which had a significant ($p < 0.01$) negative correlation with all the factors of transformational leadership and also with contingent reward dimension of transactional leadership whereas it was not correlated with management-by-exception-active. The reliability of all the sub-constructs is also within medium to high (0.59 to 0.81). The components of transformational leadership shared the correlation coefficients between the range of 0.65 to 0.81 and an overall reliability coefficient of 0.92 was calculated after all the four dimensions were clubbed together forming a measure of transformational leadership. Similarly after clubbing the overall transactional leadership dimensions a combined reliability coefficient of 0.59 was observed. The two dimensions – contingent reward and management-by-exception-active is not significantly correlated with the management-by-exception-passive dimension which provides an indication towards two factor model discussed in hypothesis 3. This could be the reason for the reliability coefficient not being high for transactional leadership.

4.2. Exploratory factor analysis of leadership variables

One of the objectives of this study was to evaluate the dimensionality of transformational and transactional leadership in the Indian context and accordingly hypothesis-2 was formulated and tested. In order to examine the factors underlying the eight dimensions an exploratory factor analysis of the scores of all dimensions of transformational and transactional leadership was conducted. In the common factor analysis only 2 factors had latent root or eigen value greater than 1. Since the latent root criterion generally results in conservative estimate of the number of factors to be

extracted in the case of common factor analysis in comparison with principal component analysis a scree test Harman (1976) was conducted. In the procedure of Scree test latent roots are plotted against the number of factors in their order of extraction, and the point at which the curve first begins to straighten out, giving the maximum number of factors to extract Cattell (1978). From the eight dimensions two factors were extracted out through the common factor analysis. The minimum factor loading for interpretation Harman (1976) is generally considered as absolute value of .32. On the first factor out of the eight dimensions; six dimensions (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, contingent reward and management-by-exception-active) had a factor loading higher than 0.71. Five dimensions had factor loadings of 0.85 to 0.95 on first factor and one dimension (management-by-exception-active) had a loading of 0.71 on the first factor. Two dimensions (management-by-exception-passive, and laissez-faire leadership) had factor loadings of 0.94 and 0.93 on factor 2 and less than 0.22 loadings on factor one. The two factors that emerged after varimax rotation were labeled based on the content analysis of the dimensions and findings of earlier studies [(Bycio et al. (1985); Judge (2004); Srinivas et al. (2006))]

Active leadership was labeled on the first factor consisting of six dimensions (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, contingent reward, and management-by-exception-active). The second factor, which consisted of two dimensions (management-by-exception-passive, and laissez-faire leadership) was termed as **passive leadership**. These two factors (active leadership and passive leadership) were used to examine their relations with outcome variables and also to test the augmentation hypothesis.

4.3. Leadership dimensions and outcome variables

Tabel-2 shows the correlations between eight leadership dimensions, active-passive leadership and outcome variables of extra effort, effectiveness of the leader, satisfaction with the leader, and intention to quit are provided in table-2 below:

TABLE-2: CORRELATIONS OF LEADERSHIP VARIABLES WITH LEADERSHIP OUTCOME VARIABLES.

Leadership Variables	Extra Effort	Effectiveness of the Leader	Satisfaction with the Leader	Intention to Quit
Transformational Leadership	0.71**	0.82**	0.74**	-0.16*
Idealized Influence	0.67**	0.76**	0.73**	-0.09
Inspirational Motivation	0.60**	0.72**	0.68**	-0.11
Intellectual Stimulation	0.63**	0.64**	0.64**	-0.16**
Individual Consideration	0.65**	0.69**	0.69**	-0.22**
Transactional Leadership	0.43**	0.52**	0.43**	0.06
Contingent Reward	0.67**	0.76**	0.68**	-0.15*
Management-by-Exception (Active)	0.47**	0.57**	0.45**	-0.02
Management-by-Exception (Passive)	-0.18**	-0.20**	-0.20**	0.26**
Laissez-faire Leadership	-0.32**	-0.30**	-0.29**	0.26**
Active Leadership	0.75**	0.80**	0.77**	-0.15*
Passive Leadership	-0.28**	-0.28**	-0.26**	0.27**

** $p < .01$. * $p < .05$.

Transformational leadership and all the factors related to it were significantly ($p < 0.01$) correlated with extra effort, effectiveness of the leader and satisfaction with the leader. From these results it can be seen that hypotheses 1(a) and 1(b) are accepted.

4.4. Relative importance of leadership variables

In order to test the hypothesis that transformational leadership is responsible for a greater proportion of variance in outcome variables a hierarchical regression analysis was conducted. In the first analysis, transactional leadership was entered as predictor in step-1 and transformational leadership in step 2. In the second analysis, the order of entry was reversed.

Table -3 represents the changes in R^2 at each step. In the three leadership outcomes – extra effort, effectiveness of the leader, and satisfaction with the leader Transactional leadership accounted for 17, 27, and 18 percent of the variance respectively – when entered first and when entered second there was no account for additional percent of variance for all the three outcome variables. Transformational leadership accounted for 52, 62 and 58 percent of the variance in the three leadership effectiveness criteria of extra effort, effectiveness of the leader and satisfaction with the leader, respectively when entered first, and when entered second an additional 33, 39 and 42 percent of the variance respectively was accounted.

TABLE-3: HIERARCHICAL REGRESSION ANALYSES: PREDICTING OUTCOMES FROM TRANSACTIONAL AND TRANSFORMATIONAL LEADERSHIP

	Extra Effort		Effectiveness of Leader		Satisfaction with the Leader	
	R^2	R^2	R^2	R^2	R^2	R^2
Order 1						
Step1						
Transactional Leadership	0.17**		0.27**		0.18**	
Step 2						
Transformational Leadership	0.52**	0.33**	0.62**	0.39**	0.58**	0.42**
Order 2						
Step1						
Transformational Leadership	0.51**		0.63**		0.58**	
Step 2						
Transactional Leadership	0.52**	0.01	0.62**	0.01	0.58**	0.01

** $p < .01$

This shows that transformational leadership variables are more significant than transactional leadership. Thus hypothesis-2 is supported and therefore steps were taken for leadership outcomes by using the explanatory power of active and passive leadership.

Table 2 shows the following:

Active leadership was significantly ($p < 0.01$) positively correlated whereas Passive leadership was significantly ($p < 0.01$) negatively correlated with extra effort, effectiveness of leader, satisfaction with the leader. Active Leadership was significantly ($p < 0.01$) negatively correlated whereas Passive leadership was significantly ($p < 0.01$) positively correlated with intention to quit.

Hypothesis: As compared to passive leadership, active leadership would contribute higher proportion of variance in outcome variables.

Hierarchical regression analyses was conducted and the results of which are presented in Table-4 below:

TABLE 4: HIERARCHICAL REGRESSION ANALYSES: PREDICTING OUTCOMES FROM PASSIVE AND ACTIVE LEADERSHIP

	Extra Effort		Effectiveness of Leader		Satisfaction with the Leader	
	R ²	R ²	R ²	R ²	R ²	R ²
Order 1						
Step1						
Passive Leadership	0.07**		0.08**		0.08**	
Step 2						
Active Leadership	0.55**	0.46**	0.69**	0.64**	0.59**	0.53**
Order 2						
Step1						
Active Leadership	0.55**		0.69**		0.59**	
Step 2						
Passive Leadership	0.55**	0.04**	0.69**	0.03**	0.59**	0.03**

* $p < .05$ ** $p < .01$

In the first analysis, passive leadership was entered as predictor in step-1, and active leadership in step-2. In the second, the order of entry was reversed.

Table 4 reports the change in R² at each step in these analyses. In the three leadership outcomes – extra effort, effectiveness of leader, and satisfaction with the leader, Passive leadership accounted for 7, 8 and 8 percent of the variance, respectively, when entered first, and on the second entry no additional percent of the variance was accounted for all the three outcome variables. Active leadership accounted for 55, 69 and 59 percent of the variance in the three outcomes of extra effort, effectiveness of leader and satisfaction with the leader, when entered first, and accounted for an additional 46, 64 and 53 percent of the variance respectively, when entered second. Therefore the active leadership explains leadership outcome variables significantly more than passive leadership. Thus hypothesis-3 is supported. These findings support prior research on augmentation effect of transformational leadership over transactional leadership [Bycio et al. (1985); Judge (2004); Gorsuch (1985)]

5. Conclusion

This research shows that there is a significant link of leadership criteria with extra effort of the subordinates, how they take the effectiveness of their leader, satisfaction of the subordinates with the leader and their attrition rate from the organization.

The research result tells that extra variance can be justified only by transformational leadership. Also transformational leadership and contingent reward criteria has significant influence on employees attitude and their extra effort.

Satisfaction of employees, extra effort of subordinate and their commitment to the organization are positively correlated with the concern, inspiration and direction received by employees from their superior.

This research establishes the significance of transformational leadership in impacting employee attitudes as well as their attrition rate, hence the two factor model of leadership may provide a better and in depth understanding this variance. These contributions have important connotation for practice and value addition to further leadership research.

6. Limitations of the Study

The limitations of the above research are:

- i. Cross-sectional design of the research due to which underlying relationships cannot be examined.
- ii. Also the causality between leadership factors and the outcome variables can not be determined by this research

- iii. There was a limited possibility of getting a totally different factor structure underlying transformational and transactional leadership in the HCL Noida.

7. Implications for the Future Research

Culture specific model of leadership can be proved helpful if future research with wider sample is done on the same. This could also help to identify and give guidance to future transformational leaders. Also a view of longitudinal research may help assess the casual relationships. In future Efforts can be made to discover more leadership criteria in the Indian context.

References

- [1] Bass, B.M. (1985). *Leadership and performance beyond expectations*, New York: Free Press.
- [2] Bass, B.M., and Avolio, B.J. (1994). *Improving organizational effectiveness through transformational leadership*, Newbury Park, CA: Sage.
- [3] Bass, B.M. and Avolio, B.J. (1995). *MLQ Multifactor leadership questionnaire for research*, Redwood City, CA: Mindgarden.
- [4] Bass, B.M., and Avolio, B.J. (1997). *Full range leadership development: Manual for the multifactor leadership questionnaire*, California: MindGarden.
- [5] Bass, B.M. (1997). Does the transactional-transformational paradigm transcend organizational and national boundaries? *American Psychologist*, 22, 130-142
- [6] Bass, B.M. and Avolio, B.J. (2004). *MLQ Multifactor leadership questionnaire for research*, California: MindGarden.
- [7] Burns, J.M. (1978). *Leadership*, New York: Harper & Row.
- [8] Bycio, P., Hackett, R.D., and Allen, J.S. (1995). Conceptualization of transactional and transformational leadership. *Journal of Applied Psychology*, 80, 468-478
- [9] Cammann, C., Fichman, M., Jenkins, Jr., G.D., and Klesh, J.R. (1983). *Assessing the attitudes and perceptions of organizational members, Assessing Organizational Change: A guide to methods, measures and practices*, New York: John Wiley & Sons, 71-138.
- [10] Cattell, R.B. (1978). *The scientific use of factor analysis in behavioral and life sciences*, New York: Plenum Press.
- [11] Drucker, P. (1999). *Management challenges for the 21st century*, New York: Harper Collins.
- [12] Gorsuch, R.L. (1983) *Factor Analysis*, Hillsdale, NJ: Lawrence Erlbaum Associates.
- [13] Harman, H.H. (1976). *Modern factor analysis*, Chicago: University of Chicago Press,
- [14] Herman, R. (1997). Reducing costly employee turnover. *HR Focus*, 74(6), 15-16.
- [15] Hitt, M.A. (2000). The new frontier: Transformation of management for the new millennium: *Organizational Dynamics*, 28(3), 6-18.

Note: Please contact the authors for full reference list

Perspective of American Students after the Deep Recession of 2008

*Harbans Singh, Singh@montclair.edu
Montclair State University (USA)*

Perspective of American Students after the Deep Recession of 2008

Abstract

This paper, through an opinion survey conducted in October 2012, provides a snapshot of the perspective of American college students after the great recession and the global financial crisis of 2008. Students were asked to rank six highly pertinent issues. Family obligation emerges as the highest ranking issue and career advancement opportunities comes out as a close second. Both male and female students, students of different age groups, students of different major disciplines and different political affiliation have a similar response to these two high ranking issues. Environmental issues receive low ranking among important issues. However, when asked as a free standing independent question an overwhelming proportion of students chose their response to environmental protection as very important. Students studying business, mathematics, computer science and natural sciences are more confident of getting a job in their field shortly after graduation. Two third of all students aspire to pursue graduate studies. Overall, students show a high level of confidence and aspiration.

Introduction

The deep recession of 2008, that was a result of the bust of the housing bubble and the subsequent global financial crisis, caused high rates of unemployment throughout the industrialized countries. After more than 5 years, the United States' economy was still reeling from its effects. Students seeking jobs after graduation are expected to face two challenges. First, the weak economy, with a high rate of unemployment, makes it harder to get a job. Second, the increasing inequality of income limited chances of upward economic mobility (Piketty 2014, Krugman 2014). In this harsh economic environment, what is the perspective of students as to their prospects and the issues that will affect their life, family and society?

Methodology

This research project involved an opinion survey in the first week of October 2012 just before the U.S. presidential election. 503 students at Montclair State University, New Jersey, where I teach, were the respondents. The survey was conducted by the graduate students in my Research Methods course in the program Environmental Management and Science. Care was taken to have a random sample. Students were approached to complete the survey at different sites, different times and classes at different schools and colleges at the University. A copy of the questionnaire is attached. SPSS was used to analyze survey data. Statistical results, such as, frequencies, cross tabulations and chi square were calculated for all pertinent combinations of responses. Interpretation of these results is the core of this research paper.

Analysis and Interpretation

Students were asked to rank order 6 issues on a scale of 1 to 6, 1 being most important and 6 being least important. These issues are: career advancement opportunities, sustainable resources use, health insurance cost, family obligation, environmental pollution and outsourcing.

Family obligation has the highest mean rank with a value of 2.42. Career advancement opportunity with a mean rank of 2.61 is the close second. Health insurance comes out third with a mean rank of 3.52. Sustainable resource use and environmental pollution, with a mean rank of 3.58 and 3.83 respectively, have a lower priority. Outsourcing of jobs to other countries is the least important with a mean rank of 5.04 (Table I).

The importance of these six issues can be further illustrated by the ranking value students have given to the issue. 62.4 percent of the students have ranked the issue of family obligation with a value of 1 and 2 i.e., the most important. 60.4 percent of the students have given the same two highest ranking to the issue of career advancement opportunities.

The identical 1 and 2 ranking values for other issues are: 25 percent of students for health insurance, 23.5 percent for sustainable resource use, 22 percent for environmental pollution, and 7.8 percent for outsourcing.

The issues of family obligation and career advancement opportunities emerge as the most important issues. Nearly 75 percent of students give these two issues the combined ranking of 1, 2, and 3. More than half the students, 52.5 percent, give health insurance the combined priority ranking of 1, 2 and 3.

TABLE 1: RANKING OF ISSUES

1=Highest Rank. 6= Lowest rank.							
Issue	Mean Rank	Percent Respondents Who Gave 1,2 Ranking			Percent Respondents Who gave 1,2,3 Ranking		
Family Obligation	2.42	62.4			74.6		
Career Advancement Opportunities	2.61	60.4			74.8		
Health Insurance	3.52	25.0			52.5		
Sustainable Resource Use	3.58	23.5			43.9		
Environmental Pollution	3.83	22.0			39.8		
Outsourcing	5.04	7.8			14.9		

For further explanation, the statistical procedures, the crosstab and the chi-square test, was performed on the data set selecting the most important variable family obligation with gender, with age groups and with the school or college the student is enrolled in. This analysis produced three crosstabs with chi-square values. The similar analysis was performed for the variable, career advancement opportunities, with the above three variables one at a time.

The chi-square p-values for all the six combinations were statistically insignificant. That is the p-values were higher than 0.05 levels. This reveals that both male and female students have similar responses to the issues of family obligations as well as concerns about career advancement opportunities. Different age groups have similar responses towards these two important issues. The response to these above two important issues is similar irrespective of the school or college that the student is attending. Montclair State University constitutes five major academic units: School of Business, College of Arts, College of Education and Human Services, College of Humanities and Social Sciences and College of Science and Mathematics. The analysis shows unanimity in identifying important issues irrespective of gender, age or subject discipline.

Additional Results of the Survey

In addition to the principle question of ranking the most important issues, students were asked about the health insurance they rely on, climate change, time spent on electronic gadgets, job opportunities after graduation, pursuing higher education, hours of work to earn income and the political party that reflects their personal philosophy. A snapshot of student's perspective is developed from their responses to the above questions (see questionnaire).

In the presidential campaign of 2012, health insurance was one of the major issues. Under the then prevailing law, students up to the age of 22 years were covered by their parent's health insurance plan. Among the respondents, 64 percent of the students are covered under their parents' plan. The new healthcare law extended this coverage up to the age of 27 years. A sizeable proportion of students, 18 percent, buy health insurance provided by the University. 10 percent of the students are covered by their employers. 7.5 percent of the students have to buy their own insurance.

Environmental issues have a lower importance in terms of rank order. However, 77 percent of the students responded that climate change is harmful in its impact. At present, climate change as it is interconnected with global warming, greenhouse gases and clean energies is the pressing environmental issue. The overwhelming proportions of students are aware of its harmful effect. This will certainly have a corrective impact on climate change policy in the near future.

On average students spent 3.4 hours daily using electronic devices. Median time spent is 3 hours. 44 percent of students spent between 5-10 hours daily. A sizeable 25 percent spent between 10-15 hours daily.

To the question, "How confident are you that you will find a job in your chosen field within a year of graduation?" a high 40 percent are moderately confident and 19.2 percent are very confident. Two thirds of the students want to pursue higher education. This high level of confidence and aspiration indicates a positive and optimistic attitude towards the future.

To the question, "Which political party reflects your personal philosophy?" 48 percent of the students selected the Democratic Party and 21 percent selected the Republican Party. A sizeable proportion, 27 percent, chose other.

Females are the majority of the student body at Montclair State University. New Jersey has a tradition of sending sons to out of state or distant colleges and universities but prefer that daughters to stay closer to home and attend a local college. There are financial benefits associated with nearness. The survey reflects overall enrollment by gender in the University. 55 percent of students in the survey are females and 44 percent are males.

The interpretation of chi-square test for selected pairs of variables contributes in important ways to understanding the perspectives of students. For the variable, confidence of finding a job within a year after graduation, the chi-square p-values are statistically significant (lower than 0.049) with the college that the student is attending, with age and with hours of work. Students majoring in mathematics and sciences and business are more confident of job prospects than students in other disciplines. Older students are more confident in comparison to the younger students. The higher the numbers of hours the students work, the more confident they are about their job prospects. The chi-square p-values were statistically insignificant for confidence in finding a job with gender and with political party. This is interpreted as there are no differences in the confidence in finding a job among male and female students as well as between the democratic and republican students.

One of the negative aspects of students working a high number of hours is that it takes longer to graduate than the conventional four years. The chi-square p-values are statistically significant for number of hours students work only with gender. That means there are real differences in working hours among male and female students. More female students work in each category of hours worked.

Chi-square p-values were statistically insignificant (higher than 0.05 levels) for the variable number of hours worked with the college a student is attending and with political affiliation of the student. This demonstrated that there is no relationship of working hours with the college student is attending or their political affiliation.

The survey was conducted in October 2012 during the heightened interest of the Presidential Campaign. How do students of different political affiliation and philosophy relate with other variables? The chi-square p-values are statistically significant for the variables, political affiliation with gender and with the college attended. Consistent with the national trend, more females affiliate with the Democratic Party. Similarly, students attending different colleges have different political affiliation. Students attending the Business School are overwhelmingly conservative and republican. On the other hand, students attending the College of the Arts and the College of the Humanities and Social Sciences are more liberal and democrats. However, students of different political affiliations have no difference of

attitude towards pursuing higher education, importance of family obligations, career advancement and environmental pollution.

References

- [1] Piketty, Thomas, *Capital in the Twenty-First Century*. The Belknap Press of Harvard University Press, Cambridge, Massachusetts; London, England; 2014.
- [2] Krugman, Paul, a Nobel Laureate in Economics is a columnist for The New York Times. He has been consistently writing about rising income inequality and high unemployment in the United States and in Europe. He has argued for policy change to reverse these trends. For example see his recent op. ed piece of June 2, 2014.

Questionnaire

1) Please rank the following from 1-6. 1 being most important, and 6 being least important to you.

- _____ Career Advancement Opportunities
- _____ Sustainable Resource Use
- _____ Health Insurance Cost
- _____ Family Obligation
- _____ Environmental Pollution
- _____ Outsourcing

Please circle your response

2) What type of health insurance do you currently rely on?

- 1- Job Provider Insurance 2 - Montclair State University Student Insurance
- 2-Parents' Insurance 4- Privately Purchased Insurance

3) What will climate change have?

- 1-Beneficial 2- Harmful Impact 3- No impact

4) How many total hours a day do you use electronic devices?(computers, smart phones, tablets, video games, etc.)

- 1-None 2- less than 5 hours 3- 5 to 10 hours 4-10 to 15 hours 5- more than 15 hours

5) How confident are you that you will find a job in your chosen field within a year of graduation?

- 4-Very Confident 3- Moderately Confident 2-Somewhat Confident 1- Not Confident

6) After graduation, do you plan on pursuing a higher degree in you chosen field?

- 1-Yes 2-No

7) Which political party reflects your personal philosophies?

- 1-Democrat 2- Republican 3- Other: please specify _____

8) What is your age?

- 1-Under 20 years old 2- 20-24 years old 3- 25-30 years old 4- over 30 years old

9) Which Montclair State University college or school do you belong to?

- 1- College of the Arts 4- College of Science and Mathematics
- 2- College of Education and Human Services 5- School of Business
- 3- College of Humanities and Social Services

10) How many hours a week do you work to earn income?

- 1-Do not work 2- 0 to 10 hours 3- 10-20 hours 4-20-30 hours 5- Full Time

11) What is your gender?

- 1-Female 2- Male 3-Other

How Sensitive Is Schooling Achievement to Instructional Time?

Derek D. Wu, derekwudanke@gmail.com

Ithaca S+R, USA

Ying Wu, yxwu@salisbury.edu

Salisbury University, USA

How Sensitive Is Schooling Achievement to Instructional Time?

Abstract

Policy makers at the highest level have recently called for broad increases in instructional time to improve student achievement in the United States. Nevertheless, previous empirical research on the effectiveness of expanding instructional time has produced largely mixed and inconclusive results. This paper investigates the effects of changes in instructional hours per day and days per year (and, by extension, the distribution of instructional time) on eighth-grade student achievement using the international TIMSS Assessments. We find that the relationship between student achievement and instructional time follows a nonlinear, concave specification: student achievement is maximized at 179 days in the average American school open for 5.9 hours per day and at 7.6 hours in the average American school open for 179 days per year. Extending the length of the school day also appears to be more effective than extending the length of the school year.

Introduction

In light of recent concerns about the declining performance of American students on internationally standardized assessments, policy makers at the highest level have called for extending the amount of time that students spend learning in school. While increasing instructional time may allow students to digest more material in an academically conducive environment, doing so might also incur substantial costs without assurances that the existing level of instructional time has been optimally distributed (to maximize student test scores) and that the effects of additional time have been properly disentangled from those of other inputs.

Indeed, the empirical research done on this issue to date has not produced a consensus regarding the true effects of instructional time on student achievement, given considerable disparities in these studies' methodologies and focuses. One set of studies examines the effects of instructional time *within* countries, capitalizing on the ability to avoid cross-country variations that may lead to imprecise estimation of such effects but sacrificing sufficient variability in the independent variable and/or the capacity to generalize results to other settings and populations. Some of these earlier studies (Card and Krueger 1992, Pischke 2007) analyzed the effects of instructional time on outputs not solely restricted to student achievement, while more recent studies (Farbman 2009, Dobbie and Fryer 2011, Hansen 2011, Goodman 2014) focused attention on student achievement as the intended outcome of changes in instructional time. Another set of studies (Lee and Barro 2001, Baker et al. 2004, Lavy 2010, Rivkin and Schiman 2013) focuses on the effects of instructional time *across* countries, thereby capturing significant variations in the independent variable (and increasing their external validity) but being more prone to suffer omitted variable bias stemming from heterogeneity between countries. While most results from these studies illustrate either an insignificant or slightly positive effect of increased instructional time on student achievement, there exists little evidence of a settled consensus on this topic.

In this paper, we exploit variation in instructional time across countries and years to examine the relationship between eighth-grade student achievement on the international TIMSS (Trends in Mathematics and Science Study) Assessments and the amount of instructional time offered by a student's school. Unlike prior literature, this paper divides aggregate instructional time (hours per year) into separate indicators for days per year and hours per day to investigate the effects of how instructional time is distributed within a school. Moreover, this study merges achievement data from four quadrennial testing cycles between 1995 and 2007 (covering more than 800,000 student observations across seventy unique countries) with student-, teacher-, and school-level data gathered from background questionnaires accompanying the assessments. As school- and student-level observations within a country are randomly sampled for every testing cycle, we treat countries (which are measured longitudinally) as panel data units. Consequently, this study's empirical framework controls for country- and year-fixed effects in addition to a broad range of student- and school-level covariates.

After analyzing a number of plausible functional forms, this paper finds that the association between student achievement and instructional time is best demonstrated through a nonlinear specification. In particular, we find that student achievement can be maximized at particular levels of instructional time, with hours and days having

substitutable effects on student achievement. As a result, this study provides evidence that merely increasing instructional time – without accounting for other important factors – cannot be assumed to automatically increase student achievement.

The remainder of this paper is organized as follows. Section 2 presents a framework of empirical specification to understand the relationship between instructional time and student achievement. Section 3 describes the data, and Section 4 analyzes the results. Section 5 discusses the implications of the results and concludes.

Empirical Specifications and Hypotheses

Introductory Framework and Linear Specifications

A simple, general form of the education production function – using measures of instructional time as the primary inputs and student achievement as the output – can be formalized in the following Cobb-Douglas functional form:

$$A_{isct} = BH_{sct}^{\tau\omega} D_{sct}^{\tau(1-\omega)} \quad (1)$$

Here, A_{isct} refers to the educational outcome (represented by test score) of student i in school s and country c at year t . The function supposes that A_{isct} can be determined by the number of instructional hours per day (H_{sct}) and days per year (D_{sct}) mandated by student i 's school s in country c and time t . All other inputs that influence student achievement – including other school-level inputs (e.g. teacher quality), peer effects, and external influences – are captured within B . The inclusion of τ reflects the possibility of first-order non-homogeneity for the production function (assuming that $\tau < 1$), with $\tau\omega + \tau(1-\omega) < 1$ implying decreasing returns to scale.¹ Such an assumption is reasonable, as academic achievement depends on more than instructional time and previous empirical studies suggest that simply doubling the number of days and hours would be unlikely to actually double student achievement.

It is useful to further separate the “catch-all” term B into a constant C (representing determinants of A uncorrelated with H and/or D) as well as a variable ε (representing a vector of variables affecting A and correlated with H and/or D):

$$A_{isct} = C\varepsilon^\gamma H_{sct}^{\tau\omega} D_{sct}^{\tau(1-\omega)} \quad (2)$$

Taking the logarithm of both sides and simplifying, we obtain the following derivation:

$$\ln(A_{isct}) = \ln(C) + \tau\omega\ln(H_{sct}) + \tau(1-\omega)\ln(D_{sct}) + \gamma\ln(\varepsilon) \quad (3)$$

Rewriting some terms and letting $\alpha = \tau\omega$ and $\beta = \tau(1-\omega)$, we obtain:²

$$\ln(A_{isct}) = \text{Constant} + \alpha\ln(H_{sct}) + \beta\ln(D_{sct}) + u_{isct} \quad (4)$$

Equation (4) presents a basic linear regression model of the logarithm of student achievement on the logarithms of instructional hours and days. The error term u_{isct} in Equation (4) can be further subdivided as follows:

$$u_{isct} = \rho'X_{isct} + \theta'X_{sct} + \kappa'X_{esct} + \eta'X_{ct} + \varepsilon_{isct} \quad (5)$$

Here, X_{isct} refers to a vector of student-background controls with coefficient ρ' , X_{sct} designates a vector of school-level controls with coefficient θ' , X_{esct} denotes a set of teacher- and classroom-controls with coefficient κ' , X_{ct} indicates a set of country-level controls with coefficient η' , and ε_{isct} represents the unobserved error term. Substituting Equation (5) into Equation (4) and inserting country- and year-fixed effects denoted respectively by δ_c and γ_t , we obtain:

$$\ln(A_{isct}) = \delta_c + \gamma_t + \alpha\ln(H_{sct}) + \beta\ln(D_{sct}) + \rho'X_{isct} + \theta'X_{sct} + \kappa'X_{esct} + \eta'X_{ct} + \varepsilon_{isct} \quad (6)$$

Equation (6) thus presents our most robust linear specification.

Nonlinear Specifications

Having outlined specifications that assume a linear relationship between instructional time and student achievement, we now consider the possibility of a nonlinear relationship. In particular, we begin by estimating a generalized, trans-log form of the production function in Equation (6). Such a specification allows us to test the robustness of the linear Cobb-Douglas results and analyze the factor substitutability between hours and days by calculating the elasticity of substitution between hours per day and days per year. Thus, we consider the following trans-log specification:

$$\ln(A_{isct}) = \delta_c + \gamma_t + \alpha_H\ln(H_{sct}) + \alpha_{HH}\ln(H_{sct})\ln(H_{sct}) + \beta_D\ln(D_{sct}) + \beta_{DD}\ln(D_{sct})\ln(D_{sct}) + \lambda_{HD}\ln(H_{sct})\ln(D_{sct}) + u_{isct} \quad (7)$$

To evaluate the robustness of this nonlinear functional form against that of the strongest linear specification, one can compare the statistical significance of the coefficients α_{HH} and β_{DD} in Equation (7) against the statistical significance of the coefficients α and β in Equation (6).

Using the results of the trans-log estimation in Equation (7), we can then calculate the elasticity of substitution – denoted σ – between days per year and hours through the following formula (Sato and Koizumi 1973, Chambers 1988):

$$\sigma = \frac{\sum_{i=1}^2 x_i f_i}{x_1 x_2} \frac{F_{12}}{F} = \frac{-f_1 f_2 (x_1 f_1 + x_2 f_2)}{x_1 x_2 (f_{11} f_2^2 - 2f_{12} f_1 f_2 + f_{22} f_1^2)}$$

Here, F is the determinant of the bordered Hessian matrix and F_{12} is the cofactor of f_{12} , while σ is evaluated at the values of $\ln(H)$ and $\ln(D)$ averaged across all observations.³ Hours and days can be described as imperfect complements with $\sigma < 1$ and as imperfect substitutes with $\sigma > 1$. These designations should also correspond, respectively, with positive and negative signs on the coefficient λ_{HD} for the interaction term in Equation (7).

If Equation (7) indeed establishes a robust nonlinear relationship between instructional time and student achievement, then – assuming this relationship is continuous and concave and that the sets of hours and days are closed and bounded – there must be unique levels of hours and days for which student achievement can be maximized. Conditional on these assumptions, we introduce a final specification that eliminates logarithmic terms while adding quadratic terms for the measures of instructional time and an interaction term between hours and days:

$$A_{isct} = \delta_c + \gamma_t + \alpha_1 H_{sct} + \alpha_2 H_{sct}^2 + \beta_1 D_{sct} + \beta_2 D_{sct}^2 + \lambda H_{sct} D_{sct} + u_{isct} \quad (8)$$

Compared to the trans-log functional form, this specification provides a more manageable way to calculate both critical values and the marginal effects of extra hours and days. Taking partial derivatives of A_{isct} with respect to H_{sct} and D_{sct} , the marginal effects of an extra instructional hour and day on student achievement (holding constant the levels of instructional days and hours, respectively) are given as follows:

$$\begin{aligned} \frac{\partial A_{isct}}{\partial H_{sct}} &= \alpha_1 + 2\alpha_2 H_{sct} + D_{sct} \\ \frac{\partial A_{isct}}{\partial D_{sct}} &= \beta_1 + 2\beta_2 D_{sct} + H_{sct} \end{aligned}$$

Equating these partial derivatives to zero, one can also solve for the optimal levels of H_{sct} and D_{sct} , conditional on the respective levels of D_{sct} and H_{sct} .

As a result, while this paper assumes the possible existence of imperfect factor substitutability between hours and days, decreasing returns to scale for achievement, and a nonlinear relationship between instructional time and achievement (all of which contradict some aspects of the classic Cobb-Douglas specification with constant elasticity of substitution), we nevertheless find that the Cobb-Douglas functional form provides a firm foundation on which to build and adjust this paper's models.

The Data

The TIMSS Dataset

This paper's dataset of interest encompasses the TIMSS Assessments, which measures standardized mathematics and science achievement at the fourth and eighth grades in participating countries on a quadrennial basis and collects a wealth of background information on students, teachers, and schools (through individually administered questionnaires). Within the realm of international surveys, the TIMSS data provide a stronger foundation for analyzing the impact of instructional time on student performance than those of PISA (the other primary internationally standardized assessment program), as the measure by which TIMSS respondents report instructional time remains consistent throughout the testing cycles (unlike that of PISA). Using an international dataset like the TIMSS also circumvents several challenges that would otherwise be associated with utilizing a domestic dataset, including the dearth of nationally standardized assessments within the United States that are administered to a randomized and nationally representative subset of students.

While TIMSS uses previous assessments to inform future testing designs, it does not readily invite the consolidation of data from different testing cycles into one panel data set. As a result, the process required to assemble

a workable dataset was both exhaustive and complex, and no study before this had comprehensively compiled the TIMSS datasets across multiple testing cycles.⁴ Within each year, the data are originally stratified by country and by unit of analysis (school, student, or teacher). Thus, for each testing cycle, we append the country-level data files at the same unit of analysis before merging between units of analysis to create a student-level, year-specific dataset (with background information on teachers, classrooms, and schools). After importing country-level data from the World Bank, we merge the consolidated year-specific datasets to form the final dataset.⁵ The final dataset contains approximately one hundred variables and more than 800,000 student observations comprising four testing cycles from 1995 to 2007.

Descriptive Statistics

There seems no readily discernible pattern in how the amount of instructional hours is distributed internationally. We also see evidence of hours and days serving as both substitutes and complements. As a result, one cannot readily discern an international pattern for instructional-time distribution between such measures.

It is difficult to descriptively establish even a broad relationship between the amount of instructional time offered and student achievement. While it is true that the highest-achieving East Asian countries have the longest school years, they also have shorter school days. On the other hand, some of the countries in the Western Hemisphere with scores nearly as high as those of the East Asian countries have among the shortest school years in the world and longest school days. Consequently, one must ultimately take into account other possible confounding factors (both within and across countries) to determine the true effects of instructional time on student achievement.

To account for omitted variable bias – which potentially skews the independent effect of instructional time on student achievement – we control for variables that are correlated with at least one of the measures of instructional time (days per year or hours per day) and student test score. These covariates are broadly categorized into four levels: (1) student, (2) school, (3) teacher/classroom, and (4) country.

Table 1 lists these variables, along with their average values for schools in the highest and lowest quartiles for instructional days per year and hours per day. Schools with the most instructional time tend to have students with only marginally greater beliefs in their academic ability and expectations for applying academic learning to future jobs, with these students also more inclined to spend less time watching television. Schools with the most instructional time also tend to have fewer computers and larger class sizes (in line with the theory of a fixed budget), as well as greater problems with student absenteeism and vandalism. Nonetheless, there appears to be an ambiguous tradeoff between instructional time and both the presence of enrichment activities and college-certified teachers. Furthermore, schools with the greatest amount of instructional time tend to have more students begin homework in class (along with a smaller probability of homework per class taking less than a half-hour) as well as more uninterested students and pupils with differing academic abilities. Finally, schools with the most days per year appear to be in countries that are slightly poorer and less developed (compared to those with the fewest days), while schools with the most hours per day tend to be in countries that are slightly richer and more developed (compared to those with the fewest hours).

TABLE 1: SAMPLE MEANS FOR SCHOOLS IN THE TOP AND BOTTOM INSTRUCTIONAL TIME QUANTILES

	Days Per Year (DPY)		Hours Per Day (HPD)		T-statistic for diff. in sample means*
	Top 25% (>200)	Bottom 25% (<180)	Top 25% (>6)	Bottom 25% (<5)	
<u>Student Characteristics</u>					
Average TIMSS Score	482	482	484	478	0.27, 18.82
% Do Well	81%	77%	83	78	26.51, 44.57
% Important for Job	83%	80%	85	81	18.83, 33.17
% Watch TV > 1 hr/day	70%	72%	70	71	8.67, 7.59
<u>School Characteristics</u>					
No. of Computers	22	25	23	21	34.04, 18.86
% Absenteeism Problem**	54%	48%	54	43	38.08, 69.64
% Vandalism Problem**	40%	31%	47	28	65.32, 130.0
% W/ Enrichment Activ.	53%	49%	48	52	28.81, 28.38

<u>Teacher/Classroom Char.</u>					
Class Size	36	28	34	29	202.0, 102.0
% Teachers w/ Coll. Deg.	84%	85%	86	87	7.90, 4.86
% Begin HW in class	36%	31%	47	26	31.81, 150.0
% Students Uninterested	52%	45%	56	42	42.80, 94.52
% HW < 30 mins/class	37%	53%	42	55	110.9, 80.04
% Stud. w/ Diff. Aca. Abil.	58%	43%	54	45	96.92, 60.10
<u>Country Characteristics</u>					
GDP Per Capita	\$13,780.97	\$15,528.44	\$15,942.27	\$14,749.04	37.41, 21.90
% Developed	42%	53%	50%	40%	69.58, 56.86
Sample Size	230,182	206,722	204,675	206,635	

* A t-statistic greater than 1.96 allows one to reject the null hypothesis at the 95% confidence level that the difference in sample means is equal to zero.

** Defined as whether or not this problem occurs on at least a monthly basis

Results

Linear Specification

The results in Table 2 present linear OLS regressions on the main data. Column (1), which corresponds to Equation (4) in Section 2 and controls only for dummy variables specifying missing data for the instructional time measures (before imputation), indicates that a 1% increase in instructional days per year and hours per day respectively decreases student achievement by 0.05% and increases achievement by 0.007%. The effect of hours per day is both extremely small and statistically insignificant, but the negative and statistically significant effect (at the 99% level) of days per year – while tiny – seems counterintuitive at first glance.⁶

TABLE 2: MAIN LINEAR REGRESSION RESULTS (OLS AND FIXED-EFFECTS)

Variables	(1) <i>ln(Score)</i>	(2) <i>ln(Score)</i>	(3) <i>ln(Score)</i>	(4) <i>ln(Score)</i>	(5) <i>ln(Score)</i>	(6) <i>ln(Score)</i>	(7) <i>ln(Score)</i>
<i>ln(Days Per Year)</i>	-0.0512*** (0.0160)	-0.0318** (0.0149)	-0.0372*** (0.0141)	0.00647 (0.0142)	0.0389*** (0.0138)	-0.00712 (0.0118)	-0.0122 (0.0119)
<i>ln(Hours Per Day)</i>	0.00730 (0.00882)	0.0224*** (0.00835)	0.0143* (0.00815)	0.0513*** (0.00825)	0.0208** (0.00818)	0.0134** (0.00628)	0.0123** (0.00627)
<i>Do Well</i>		0.0176*** (0.00136)	0.0132*** (0.00132)	0.0183*** (0.00127)	0.0199*** (0.00125)	0.0851*** (0.000775)	0.0850*** (0.000770)
<i>Important for Job</i>		-	-0.0460***	-0.0335***	-0.0191***	0.00631***	0.00609***
		0.0532*** (0.00112)	(0.00110)	(0.00111)	(0.00119)	(0.000690)	(0.000690)
<i>Watch TV</i>		0.113*** (0.00195)	0.103*** (0.00178)	-0.0921*** (0.00153)	-0.0787*** (0.00146)	0.0397*** (0.000875)	0.0397*** (0.000875)
<i>Computers</i>			0.000985*** (3.73e-05)	0.000842*** (3-.58e-05)	0.000307*** (3.29e-05)	0.000167*** (2.34e-05)	0.000209*** (2.48e-05)
<i>Absence</i>			-0.0567*** (0.00299)	-0.0488*** (0.00288)	-0.0514*** (0.00288)	-0.0278*** (0.00176)	-0.0285*** (0.00178)
<i>Vandal</i>			0.00516 (0.00362)	0.00669* (0.00352)	-0.00480 (0.00358)	-0.00874*** (0.00196)	-0.00944*** (0.00197)
<i>Enrich</i>			0.0151*** (0.00329)	0.0186*** (0.00329)	0.0323*** (0.00358)	0.0148*** (0.00226)	0.0150*** (0.00226)
<i>Class Size</i>				-0.00302*** (0.000189)	-0.00186*** (0.000186)	0.000683*** (0.000126)	0.000629*** (0.000125)
<i>Teacher Education</i>				0.0602***	0.0402***	0.0204***	0.0216***

				(0.00424)	(0.00385)	(0.00256)	(0.00265)
<i>Begin Homework</i>				-0.0391***	-0.0438***	-0.0286***	-0.0292***
				(0.00154)	(0.00153)	(0.000848)	(0.000837)
<i>Uninterested</i>				-0.0599***	-0.0508***	-0.0325***	-0.0321***
				(0.00275)	(0.00285)	(0.00169)	(0.00169)
<i>Limited Homework</i>				-0.0140***	-0.0332***	-0.00992***	-0.0100***
				(0.00261)	(0.00251)	(0.00165)	(0.00165)
<i>Different Abilities</i>				-0.00828***	-0.0101***	-0.0212***	-0.0206***
				(0.00264)	(0.00261)	(0.00166)	(0.00166)
<i>ln(GDP Per Capita)</i>					0.0356***	0.00776***	0.0331***
					(0.00376)	(0.00286)	(0.00474)
<i>Developed</i>					0.0478***	-0.0278***	-0.0278***
					(0.00706)	(0.00438)	(0.00449)
Constant	6.406***	6.229***	6.257***	6.052***	5.591***	6.001***	5.814***
	(0.0838)	(0.0778)	(0.0734)	(0.0742)	(0.0841)	(0.0673)	(0.0717)
Missing Value	Y	Y	Y	Y	Y	Y	Y
Dummy	N	N	N	N	N	Y	Y
Country-Fixed	N	N	N	N	N	N	Y
Effects	848,357	848,357	839,597	825,395	816,518	816,518	816,518
Year-Fixed Effects							
Observations							
R-squared	0.005	0.056	0.118	0.170	0.216	0.522	0.522

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Column (2) in Table 2 expands on Column (1) by controlling for a set of student-level covariates equivalent to X_{isct} in Equation (5). A 1% increase in days per year now translates to a 0.03% decrease in achievement, and a 1% increase in hours per day is now associated with a 0.02% increase in test score (with both effects statistically significant at the 95% level). The effect of days per year on achievement in Column (2) has become less negative than in Column (1) and the effect of hours per day has also become greater, as controlling for important student-level factors removes some of the previously uncaptured bias in these coefficients. Column (3) builds on previous regressions by including school-level covariates equivalent to X_{sct} in Equation (5). The effects of instructional time have marginally decreased relative to those in Column (2), with a 1% increase in days per year and hours per day respectively associated with a 0.04% decrease and 0.01% increase in student test score.

Column (4) further controls for a vector of teacher- and classroom-level covariates represented by X_{esct} in Equation (5) – all of which are statistically significant at the 99% level. A 1% increase in days per year now results in an increase in test score by 0.006%, which – while statistically insignificant – is now positive compared to analogous effects in Columns (1) – (3). A 1% increase in hours per day has also become larger, resulting in a statistically significant increase in student achievement by 0.05%. The most robust OLS regression specification can be found in Column (5), which includes a set of country-level covariates equivalent to X_{ct} in Equation (5). Column (5) indicates that a 1% increase in days per year – holding hours per day constant – increases student achievement by 0.04%, and a 1% increase in hours per day – holding days per year constant – increases student achievement by 0.02%. Before proceeding, it is important to notice that these effects – while statistically significant – are still quite small.

Incorporating covariates into the regression specification does much to circumvent omitted variable bias, but the OLS regression models in Columns (1) – (5) cannot fully control for unobserved heterogeneity across observations, which are likely greatest between countries. As a result, Column (6) employs a fixed-effects regression model that controls for effects varying across countries but not over time.⁷ The within-country effect of a 1% increase in instructional days per year is now associated with a statistically insignificant 0.007% decrease in test score, while a 1% increase in hours per day is associated with a statistically significant 0.01% increase in test score. Column (7) adds to Column (6) by including year-fixed effects that do not vary across countries. It appears that the results change only

marginally, with a 1% increase in days per year resulting in a statistically insignificant 0.01% decrease in test score and the effect of hours per day remaining largely unchanged from Column (6).

Trans-Log Specification

To test for nonlinearity, Column (1) in Table 3 displays the regression results from the trans-log estimation in Equation (7), which illustrate positive coefficients for the linear terms and negative coefficients for the quadratic terms – all of which are statistically significant at either the 90% or 95% significant levels. These results imply a robust, concave relationship between student achievement and both measures of instructional time. Given that the coefficient on the interaction term is only marginally insignificant at the 90% significance level, the optimal level of instructional days per year – as well as the marginal effect on achievement of an extra day – may very well be dependent on the existing level of instructional hours per day (and vice-versa). Furthermore, the implication of the negative sign on the interaction term (that days and hours have substitutable effects on student achievement) is confirmed by calculating the elasticity of substitution, which is equal to 3.40 and implies that days and hours are imperfect substitutes.

TABLE 3: MAIN NONLINEAR REGRESSION RESULTS (TRANS-LOG AND QUADRATIC)

Variables	(1) <i>ln(Score)</i>	(2) <i>Score</i>
<i>ln(Days Per Year)</i>	1.084** (0.438)	
<i>[ln(Days Per Year)]²</i>	-0.0929** (0.0401)	
<i>ln(Hours Per Day)</i>	0.461* (0.236)	
<i>[ln(Hours Per Day)]²</i>	-0.0238* (0.0122)	
<i>ln(Days) * ln(Hours)</i>	-0.0702 (0.0449)	
<i>Days Per Year</i>		0.411** (0.206)
<i>(Days Per Year)²</i>		-0.000779* (0.000459)
<i>Hours Per Day</i>		9.693*** (3.288)
<i>(Hours Per Year)²</i>		-0.374*** (0.137)
<i>Days * Hours</i>		-0.0225 (0.0156)
Constant	2.541** (1.230)	247.4*** (31.65)
Covariates	Y	Y
Country-Fixed Effects	Y	Y
Year-Fixed Effects	Y	Y
Observations	816,518	816,518
R-squared	0.523	0.500

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Quadratic Specification

Having confirmed that the relationship between both measures of instructional time and student achievement follows a robust nonlinear relationship, we analyze the regression results of the quadratic specification – equivalent to Equation

(8) – that eliminates the logarithmic terms from the previous trans-log estimation. These results are found in Column (2) of Table 3. Substituting these coefficients into Equation (8), we obtain:⁸

$$A_{iset} = 247.4 + 0.411D_{set} - 0.000779D_{set}^2 + 9.693H_{set} - 0.374H_{set}^2 - 0.0225D_{set}*H_{set} + u_{iset}$$

Taking partial derivatives with respect to both days per year and hours per day produces the following first-order conditions:

$$\partial A_{iset} / \partial D_{set} = 0.411 - 0.001558D_{set} - 0.0225H_{set} = 0$$

$$\partial A_{iset} / \partial H_{set} = 9.693 - 0.748H_{set} - 0.0225D_{set} = 0$$

Using the second partial derivative test, we find that all critical values of this quadratic specification serve as local maxima. Because the critical value for days per year is dependent on a given value for hours (and vice-versa), we take as fixed the existing average values for instructional time in the United States. As a result, given an average school day length of 5.9 hours, we find that student achievement is maximized at 179 days per year. Coincidentally, this also happens to be the length of the average school year in the United States. On the other hand, given an average school year length of 179 days, we find that student achievement is maximized at 7.6 hours per day. This is significantly higher than the length of the average school day (5.9 hours) in the United States.

Because the marginal effects of an extra unit of instructional time depend on the original amount of days or hours, schools in different countries will experience different marginal effects of increasing instructional time. Table 4 presents these effects for the average school in a sample of countries, given the average country-level data for instructional time compiled from the most recently available source – the 2011 TIMSS dataset.⁹ As expected, the marginal effects of an extra day – holding constant hours per day – are statistically insignificant for all of the selected countries in Table 4. These trivial effects can be contrasted with the more significant effects of an extra hour per day. In the United States, an extra instructional hour per day – controlling for days per year – increases test score by 1.3 points (0.016 standard deviations), with this effect rising to 1.5 and 2.4 points (0.020 and 0.032 standard deviations) in Japan and Hungary, respectively.¹⁰ Even in Israel, with one of the longest school years in the world, an extra hour per day increases student achievement by 1.2 points (0.014 standard deviations), *ceteris paribus*.

TABLE 4. MARGINAL EFFECTS OF TIME INCREASE IN DIFFERENT COUNTRIES

Country	Days Per Year		Hours Per Day	
	2011 Avg. Level	Marg Eff: +1 Day	2011 Avg. Level	Marg Eff: +1 Hr
United States	179	-0.000947	5.9	1.256**
Japan	201	-0.0128	4.9	1.510***
Hungary	183	0.0310	4.2	2.438***
Israel	211	-0.0306	5	1.210**

Note: These marginal effects assume that the other measure of instructional time (e.g. hours when analyzing days and vice-versa) is fixed to the existing 2011 average of the relevant country.

*** p<0.01, ** p<0.05, * p<0.1

Discussion

While this study finds that increasing instructional time – in particular, hours per day – until a threshold produces small, positive effects on student achievement, it remains to be seen whether or not such results warrant the passage of policies increasing the time that students spend learning in school. Indeed, there are two broad limitations to such policies: (1) the diminishing marginal returns of student achievement to instructional time and (2) the presence of significant monetary and opportunity costs to increasing instructional time.

Studies have shown that a ten percent increase in instructional time leads, on average, to a six to seven percent increase in monetary cost (Silva 2007). There also exist substantial non-budgetary costs to increasing instructional time, as altering school schedules produces wide-ranging consequences (especially with regard to extending the school year). Parents may be unwilling to sacrifice family vacations and independent out-of-school activities, and teacher unions may also be reluctant to accept the burden of longer schedules for teachers (even if salaries are concomitantly raised).

Furthermore, there remain nontrivial opportunity costs associated with allocating more resources to expanding time in school, as spending money towards increasing instructional time might take away from funds that could be distributed towards other inputs with beneficial effects on student achievement. As a result, the effects of added instructional time should be evaluated alongside those of other inputs to properly ascertain its benefits.

In particular, the achievement impact analysis of instructional time could also be sensitive to heterogeneous groups of students. Dobbie and Fryer (2011) find that urban charter schools that add 25 percent or more instructional time (comparable to an increase of 1.5 to 2 instructional hours) have annual gains that are 0.059 standard deviations higher in math. On the other hand, research by Dee and West (2011) shows that a decrease in class size by 10 students increases test scores for urban students, on average, by 0.12 standard deviations. It has also been found urban schools providing feedback to teachers ten or more times per semester have annual math gains that are 0.038 standard deviations higher than those of other schools, while schools that tutor students at least four days a week in small groups have annual math gains that are 0.044 standard deviations higher than those of other schools (Dobbie and Fryer 2011). While slightly smaller, the effects of an extra instructional hour found in this study lie within the same general range as those of the aforementioned schooling inputs. As a result, increasing instructional time (over other inputs) may only be prudent if the target population is particularly amenable to benefiting and the costs of doing so are less than those associated with the other inputs.

Given the high costs of increasing instructional time, schools might also consider increasing the utility of available time before increasing the length of the school day or year. With research suggesting that the quality of instructional time matters at least as much as the quantity (Silva 2007, Baker et al. 2004), it is conceivable that some schools could match or exceed the academic gains from increasing instructional time merely by making their current schedules more efficient.

Consequently, there are several important policy implications that can be drawn from this paper's findings and the discussion above. First, policymakers deciding between which measure of instructional time to increase would be wise to extend the length of the school day rather than (or before) expanding the length of the school year. Furthermore, the effectiveness of instructional time reforms depends greatly on the context within which such changes are proposed. Finally, policymakers should balance the benefits of increasing instructional time against (1) corresponding pecuniary and non-pecuniary costs and (2) the benefits attained from investing in other resources and/or the utility of available time.

There are several important areas of further inquiry that future studies are encouraged to tackle. It would be worthwhile to examine the possibility of heterogeneous effects of instructional time between other groups – for instance, do students in elementary school benefit more from increased time than those in middle or high school? Furthermore, what are the effects of variations in instructional time on outcomes other than student achievement? Finally, are there ways to increase instructional time such that the quality of time is maximized in the process? Answers to these sorts of questions are important in fully understanding not just the effectiveness of policies that increase instructional time (as this paper examines) but also the measures needed to implement such policies on the ground.

References

- [1] Baker, D. P., Fabrega, R., Galindo, C., & Mishook, J. (2004). Instructional time and national achievement: cross-national evidence. *Prospects*, 34 (3), 311–334.
- [2] Card, D., and Krueger, A. B. (1992). Does school quality matter? Returns to education and the characteristics of public schools in the United States. *The Journal of Political Economy*, 100 (1): 1–40.
- [3] Chambers, R. (1988). *Applied Production Analysis: A Dual Approach*. Cambridge University Press.
- [4] Dee, T. S., & West, M. R. (2011). The non-cognitive returns to class size. *Education Evaluation and Policy Analysis*, 33 (1), 23–46.
- [5] Dobbie, W., and Fryer, Jr., R. G. (2011). Getting beneath the veil of effective schools: Evidence from New York city. *NBER Working Paper 17632*.
- [6] Farbman, D. A. (2009). *Tracking an Emerging Movement: A Report on Expanded-Time Schools in America*. National Center on Time and Learning.
- [7] Goodman, J. (2014). Flaking out: Student absences and snow days as disruptions of instructional time. *NBER Working Paper 20221*.
- [8] Hansen, B. (2011). School year length and student performance: Quasi experimental evidence. *Working Paper*.
- [9] Lavy, V. (2010). Do differences in schools' instruction time explain international achievement gaps? Evidence from developed and developing countries. *NBER Working Paper 16227*.
- [10] Lee, J. W., and Barro, R. J. (2001). Schooling quality in a cross-section of countries. *Economica*, 68(272), 465–468.
- [11] Pischke, J. S. (2007). The impact of length of the school year on student performance and earnings: Evidence from the German short school years. *The Economic Journal*, 117(523), 1216–1242.
- [12] Rivkin, S. & Schiman, J. (2013). Instruction time, classroom quality, and academic achievement. *NBER Working Paper 19464*.
- [13] Sato, R. and Koizumi, T. (1973). On the elasticities of substitution and complementarity. *Oxford Economic Papers*, 25(1), 44-56
- [14] Silva, E. (2007). *On the Clock: Rethinking the Way Schools Use Time*. Washington, D.C.: Education Sector.

End Notes

¹ However, this production function still assumes diminishing marginal returns to each parameter of instructional time, given that $\tau\alpha$ and $\tau(1-\alpha)$ are both assumed to be less than one.

² This assumes that $Constant = \ln(C)$ and $u_{isct} = \gamma \ln(\varepsilon)$ in Equations (4) and (5).

³ More precisely, the terms in this equation can be denoted – per the coefficients in Equation (7) – by the following:

$$\begin{array}{ll}
 x_1: \ln(H) & x_2: \ln(D) \\
 f_1: \frac{\partial \ln(A)}{\partial \ln(H)} = \alpha_H + 2\alpha_{HH} \ln(H) + \lambda_{HD} \ln(D) & f_2: \frac{\partial \ln(A)}{\partial \ln(D)} = \beta_D + 2\beta_{DD} \ln(D) + \lambda_{HD} \ln(H) \\
 f_{11}: \frac{\partial f_1}{\partial \ln(H)} = 2\alpha_{HH} & \\
 f_{12}: \frac{\partial f_1}{\partial \ln(D)} = \lambda_{HD} & \\
 f_{22}: \frac{\partial f_2}{\partial \ln(D)} = 2\beta_{DD} &
 \end{array}$$

⁴ Because the 1999 TIMSS testing cycle omitted fourth grade students from the study, this paper uses only eighth-grade data for purposes of data continuity.

⁵ In doing so, we had to address the following caveats: (1) Questionnaires differed in structure from year to year, (2) Answer choices followed different scales between years, and (3) Variables were often labeled differently between testing cycles.

⁶ Throughout these regression specifications, we also assume that standard errors are clustered at the school level. Because the regressions analyze the effects of school-level measures of instructional time on the achievement of each student in a particular school, one can expect the errors to be correlated within each school. Thus, given the non-independence of each student-level observation within a school, clustering standard errors accounts for the fact that the effective sample size is lower than what it appears to be.

⁷ These effects may include – among others – attitudes toward the importance of education as well as various cultural and institutional factors.

⁸ Here, the constant 247.4 essentially captures the sum of the country-fixed and year-fixed effects intercepts.

⁹ These marginal effects assume that the other measure of instructional time (e.g. hours when analyzing days and vice-versa) is fixed to the existing 2011 average of the relevant country.

¹⁰ When describing the change in student achievement in terms of standard deviations for a particular country, we divide the change in test score by the standard deviation from the achievement mean *for that country's sample*. When describing the change in student achievement in terms of standard deviations cross-sectionally, we divide the change in test score by the standard deviation from the achievement mean for the dataset's entire population.

Innovation capital, spin off, start up and incubators

**How do SMEs appropriate the value from the innovation? An empirical analysis in
medium high-tech industries**

Lara Agostini, agostini@gest.unipd.it

Anna Nosella, anna.nosella@unipd.it

Benedetta Soranzo, soranzo@gest.unipd.it

Dipartimento di Tecnica e Gestione dei sistemi industriali

Università degli Studi di Padova, Italia

How do SMEs appropriate the value from the innovation? An empirical analysis in medium high-tech industries

Abstract

Innovation is assuming increasing relevance in the actual economic context, but being able to complete the innovation process is not enough for firms if they could not appropriate the value of their investments. Since, the relationship between appropriability regimes and firm performance has not received the attention it deserves, the present paper aims to narrow this gap.

To this end we used a panel regression model on secondary data related to balance sheets and patent portfolios of 559 Italian SMEs belonging to medium high-tech industries, but it showed no relationship between patent portfolios and economic and financial performance. Thus, we performed a cluster analysis on primary data collected through a survey in order to gather useful insight regarding the effect that other appropriability mechanisms might have on firm ability to profit from their innovation. Results suggest that the cluster preferring informal mechanism, in particular lead time, secrecy, skilled employees and control of distribution network, over patents registers superior performance.

1. Introduction

In the present-day economy, intangible assets have become more important than physical ones to succeed (Chen and Chang, 2010) and innovation has increasingly acquired a central role in developing and establishing a firm competitive advantage (du Plessis, 2007; Eppinger and Vladova, 2013). However, being able to generate new products and process, or to improve existing ones, is not a sufficient condition to maintain a superior competitive position over time (Neuhäusler, 2012): in fact, it has long been recognized that many innovative firms face difficulties in gaining the expected economic returns from its investments in innovation due to the presence of potential imitators (Arrow, 1962; Teece, 1986). For this reason, the activities related to the management of innovation, in terms of its exploitation and protection, might have a deep influence on firm profitability (Teece, 1986). To exclude third parties from the exploitation of their innovations, firms can put in practice several mechanisms, that generally are classified into two macro categories: formal regimes, such as patents or other kinds of Intellectual Property Rights (IPRs), and informal ones, more related to firm exploitation strategic choices (Milesi *et al.*, 2013), such as keep the innovations secret or devolving them faster than competitors.

A broad branch of the literature has focused on the means that firms can use to appropriate the value of their innovations; however, despite the fact that small and medium enterprises (SMEs) are often seen as important innovators in the economy (Kitching and Blackburn, 1998), few empirical researches are addressed to study the association between the appropriability strategy chosen by SMEs and their performance (Helmets and Rogers, 2008; Leiponen and Byma, 2009; Thomä and Bizer, 2013).

This issue seems particularly relevant in the Italian context, where 35% of SMEs, more than the European average rate, have introduced product or process innovations and, in recent years, have shown a positive trend in patent registration, more than large firms do (Hollanders and Es-Sadki, 2013).

To this end our aim is to better investigate the relationship between patents and SMEs economic and financial performance of Italian manufacturing SMEs belonging to medium high-tech industries. Additionally, to gain a deeper insight on the impact that also other appropriability regimes might have on firm performance, we identify clusters of firms having different innovation behaviours with particular reference to appropriation strategies and the generation of incremental and radical innovation. This clusterization allows to test whether there is a significant difference in terms of profitability between the identified groups of SMEs.

This paper is structured as follows: section 2 presents an analysis of the literature on the influence that patent and the choice of other appropriability regimes might have on SME economic and financial performance; section 3 describes the methodology of both the analyses carried out in this study; section 4 illustrates the result obtained from the two analysis before presenting the conclusions and suggestions for future research in section 5.

2. Literature review

2.1 Patents and firm performance

In the last decades, a broad branch of scientific literature (e.g., Faems, de Visser, Andries, and Van Looy, 2010; Geroski, Machin, and van Reenen, 1993; Mansfield, Rapoport, Romeo, Wagner, and Beardsley, 1977) aimed to assess the relationship between innovativeness and firm economic and financial performance has developed. As patents can be considered a proxy of a firm innovative activities (Griliches, 1990; Haroff *et al.*, 2003; Lanjouw and Shankerman, 2004), many empirical works have focused on testing their specific association with firm economic and financial performance.

However, results of those studies are conflicting: some proved that there is no significant relationship between patents and firms performance measured in terms of Return on Assets (ROA), sales growth and market value (Griliches *et al.*, 1991; Rivette and Kline, 2000; Kretschmer and Soetendorp, 2001); instead, among those who found evidence of a significant association, a certain number of papers assert that patents have a strong positive effect on the above-mentioned firm performance (Andries and Faems, 2013; Austin, 1993; Bosworth and Rogers, 2001; Bessler and Bittelmeyer, 2007; Chen and Chang, 2010; Deng *et al.*, 1999; Ernst, 1995, 2001; Hall *et al.*, 2005; Nerkar and Roberts, 2004; Scherer, 1965; Teece, 1998), contrarily others found a negative influence (Artz *et al.*, 2010; Heimonen, 2012).

In addition, industry and nation peculiarities are claimed to influence the association between patents and firm performance (Ernst, 2001); as a consequence, some of the above-mentioned studies have been conducted in a specific country, principally U.S, U.K and Germany, and/or in a specific industry, above all the pharmaceutical (Mansfield, 1986; Narin *et al.*, 1987; Nerker and Roberts, 2004; Chen, 2011; Chang *et al.*, 2012; Demirel and Mazzucato, 2012), the mechanical (Rothwell, 1979; Ernst, 1995, 2001; Agostini *et al.*, 2013) the biotechnology (Arora *et al.*, 2008) and the nanotechnology (Fernandez-Ribas, 2010).

Within this context, the domain of SMEs is much less investigated. (e.g., Andries and Faems, 2013) Only few empirical works regarding the relationship between patenting activities and firm performance, mainly in terms of sales, have specifically taken into consideration the SMEs context, and again results are not so straightforward. Demirel and Mazzucato (2012) and Andries and Faems (2013) conclude that also SMEs benefit from their R&D activity, and in particular from patents, while on the other hand, Heimonen (2012) find that innovative small firms are less successful than non-innovative ones and Agostini *et al.* (2013) observe that for Italian SMEs, belonging to mechanical sector, there is no significant impact of patents on firm performance in the mechanical industry.

The literature recognizes that SMEs face relatively big challenges in capturing the value of their patenting activities because the patent system seems to be more appropriate for large firms, especially in the drugs industry (Brouwer and Kleinknecht, 1999). There are two main factors that might make patenting less effective for SMEs, and thus reduce their probability to obtain advantages from patents: the lack of economic resources as well as of the legal and procedural information about the IP systems (Masurel, 2002; OECD, 2004; WIPO, 2004). However, there are evidences of an increasing patent activity on the part of SMEs rather than of large firms, both in Europe and in the U.S (de Rassenfosse, 2012), and especially in high-tech industries (Burrone, 2005). For these reasons, it might be important to gain a deeper understanding of this controversial topic, trying to unveil whether SMEs can gain an economic benefit from their patents.

On these grounds, we formulate the first hypothesis.

H1: The number of patented invention is not associated with SME profitability in medium high tech industries.

2.2 Mechanisms to protect innovation

It is widely recognized that one of the main purposes when investing in innovative activities is to differentiate the firm offering and consecutively gain a profit increase. Indeed a novel product or service has few direct substitutes, and this should allow the innovator to benefit from a “quasi monopoly” position in the market (Milesi *et al.*, 2013). However, in practice, the possibility to establish a competitive advantage and gain significant economic returns from the successful innovation is reduced due to the presence of potential imitators (Galende, 2006).

The topic related to the means firms can use to capture the value of their innovations preventing or delaying imitation is broadly discussed in the stream of literature about the so called appropriability “regimes”, “mechanisms” or “strategies”, where these terms are used as synonyms.

There is general consensus among authors (i.e., Galliè and Legros, 2012; Milesi *et al.*, 2013) that appropriability regimes can be grouped into two macro categories: “formal” or “legal” mechanisms and “informal” or “strategic” ones. Legal appropriability regimes require the demonstration of the novelty/originality of the innovative output to an authorized external authority (Laursen and Salter, 2005) which, in case of approval, grants the innovator the exclusive right to exploit it (Rammer, 2002). Formal means coincide with the Intellectual Property Rights (IPRs), so they include mechanisms such as patents, trademarks, utility models, industrial designs and copyrights, that aim to protect different kind of new knowledge.

With regard to the second category of informal appropriability regimes, the most relevant are trade secret, technological complexity, lead time advantage, complementary assets and skilled employees.

- *Trade secret* consists in undisclosed knowledge that provides an actual or potential competitive advantage over firms that lack of those information (Galliè and Legros, 2012). The efficacy of this means of protection is related to the efforts to exclude third parties to capture the knowledge developed by the innovative firm in form of products, processes, techniques, methods, devices, or *formulae*; however secrecy does not protect from “reverse engineering” (Rammer, 2007; Milesi *et al.*, 2013; Galliè and Legros, 2012) or independent discoveries (Galliè and Legros, 2012).
- *Technological complexity* of goods or production processes can reduce the risk of being copied, thanks to the difficulties faced by potential imitators to put in practice “reverse engineering” and “invent-around” strategies (Rammer, 2007; Galliè and Legros, 2012). Moreover, nowadays, many products are based on the integration of different technologies and pieces of knowledge; this means that a competitor should acquire sufficient knowledge to understand and manage all of them in order to replicate a someone else’s innovation (Brusoni *et al.*, 2001). In fact, the human capital plays a fundamental role in innovative activities: having a group a of qualified and experienced technicians that embody the knowledge of the firm have a positive influence on innovations (Galende, 2006; Gonzalez-Alvarez and Nieto-Antolin, 2007), and might help to respond to specific customer needs developing highly tailored solutions that are difficult to imitate (Thomä and Bizer, 2013).
- *Lead time or “first mover” strategy* is related to the ability of a firm to routinely develop innovations more quickly than competitors (Galliè and Legros, 2012). Rapid innovation rate gives to a firm the opportunity to benefit from a “quasi-monopoly” period between the launch of its innovation to the market and the introduction of substitute goods developed by imitators (Milesi *et al.*, 2013). In addition, due to the constant accumulation of knowledge over time, the innovative firm might have achieved a more advanced technological step than its potential imitators, allowing it to achieve a position of technical leadership for a period of time in its competitive environment (Galende, 2006; Delerue and Lejeune, 2011; Gonzalez-Alvarez and Nieto-Antolin, 2007). Other potential benefits arising from the “continuous innovation strategy” consist of the possibility to acquire a significant market share, establish technological co-operation networks (Gonzalez-Alvarez and Nieto-Antolin, 2007) and rise “entry barriers” to potential imitators thanks to high imitation cost and time (Harabi, 1995; Milesi *et al.*, 2013; Gonzalez-Alvarez and Nieto-Antolin, 2007; Lawson *et al.*, 2012)
- *Complementary assets* are key factors in determining how economic benefits are distributed between the innovative firm and its imitators. In fact, they represent the set of different capabilities difficult to imitate that used together with the core technological ones contribute to appropriate the profits of innovative activities, especially when imitation is inevitable (Teece, 1986). Complementary asset have a technical, commercial and organizational nature because they comprise different resources like complementary technologies, control of distribution channels, service capacity (e.g., after-sales support) and relationship with customers and suppliers (Teece, 1986; Galende, 2006; Lawson *et alt*, 2012; Milesi *et al.*, 2013).

2.2.1 Appropriability regimes and innovative behaviour of firms

Although in the literature the definition and the description of the means for protecting and capturing economic benefits of innovative activities are quite homogeneous, the results of empirical studies about their efficacy and usefulness are not directly comparable. This may be due to the difference in the period of analysis, the characteristics of the sample, and the used methodological approach (Milesi *et al.*, 2013).

Overall, most of the empirical studies analyse how the perceived importance of appropriation regimes changes according to one or more factors among industry characteristics, type of innovation (process vs product innovation) and firm size.

As far as sector of activity is concerned, firms belonging to industries with low levels of technological opportunities tend to resort less to appropriability regimes; informal appropriability mechanisms are more used by firms in medium-tech sectors and formal ones are preferred in medium-high tech and knowledge intensive industries (Levin et al., 1987; Harabi, 1995; Arundel and Kabla, 1998; Arundel, 2001; Laursen and Salter, 2005; Jensen and Webster, 2006; Leiponen and Byma, 2009; Olander et al., 2009; Milesi et al., 2013). In particular, patents are found to be important for those firms whose products are expensive to develop but that are, at the same time, easy and cheap to imitate, like chemical compounds, mechanical equipments, electrotechnical instruments, semiconductors (Brower and Kleinknecht, 1999; Cohen, 2000; Arundel, 2001; Harabi, 1995; Kumar and Vedmani, 2007).

From the point of view of the kind of innovation to be protected, generally informal appropriability regimes seem to be perceived as more valuable, both for product and process innovations (i.e. Levin et al., 1987; Harabi, 1995; Arundel, 2001; Cohen *et al.*, 2002). Process innovations can be kept within the firm and protected through secrecy more effectively than product innovations; in addition, for process innovations, the disclosure of information required in a patent application might not be worth the legal protection offered by this kind of mechanisms (Harabi, 1995). Although informal methods are overall preferred, in case of product innovations, firms show a higher inclination towards the use of patents than for process innovations: in fact, when a product is launched to the market, it might be subject to reverse engineering (Leiponen and Byma, 2009).

Regarding the last of the above-mentioned factors, firm size, most of the studies highlight that strategic mechanisms are viewed as more valuable than formal ones both from large and small firms (Levin et al., 1987; Cohen, 2000; Arundel 2001; Neuhäusler, 2012). However, firm size could be an inhibiting factor (Leiponen and Byma, 2009; Galliè and Legros, 2012; Thomä and Bizer, 2013) particularly for patent activities due to the resource constraints, more difficulties in dealing with patent process and legal activities, non-familiarity with patent information that SMEs, rather than large firms, face (Kumar and Vedmani, 2007). Despite this issue, not all small firms follow the same patterns to protect their innovations (Olander *et al.*, 2009) and, as stated in the previous paragraph, the literature presents evidence of the increasing use of IPRs, especially patents, by small and medium enterprises.

Furthermore, most of empirical studies agree upon the fact that firms generally employ a variety of means to protect their inventions (Choen, 2000; Olander *et al.*, 2009; Galliè and Legros, 2012; Neuhäusler, 2012). In fact, as stated by Hurmelinna-Laukkanen *et al.* (2008 p. 281), it is a “combination of mechanisms that at its best enables protecting innovations and the increased rents due to R&D needs to be used strategically”.

Despite the fact that the aim of appropriability regimes is to protect and capture the value of innovative activities of the firms, and even if the literature available on this issue is extensive, little research, to the best of our knowledge, concentrates on how the choice of a specific or a set of mechanisms influences firms performance. Within the few empirical contributes that shed light on the effects that the efficacy of the appropriability regimes has on firm performance, Laursen and Salter (2005) analyse the relationship between the importance attributed by a sample of 2707 firms to legal and informal mechanisms to “innovative performance”, measured as the rate of firms sales related to new products on the global market. Results from their regression models show that the strength of both sets of approaches are curvilinearly associated to innovative performance, with an inverted “U-shape”.

Similarly, Hurmelinna-Laukkanen *et al.* (2008) tries to link the perceived strength of appropriability regimes, both formal and informal, to the percentage of firms turnover related to new products launched in the preceding three years, defined as “innovative performance”. A positive effect of the strength of the appropriability mechanisms is found when innovations are incremental, but not when they are radical.

Those results are also supported by Ceccagnoli (2009); his work concludes that the strength of appropriability means has a positive impact on firm performance, estimated as Tobin’s q value, in particular when patents are used to protect incremental innovations rather than radical ones.

Some studies focus on the moderating role that different kinds of appropriability regimes play on the association between innovation capability and business performance: Lawson *et al.* (2012) find that both legal and informal mechanisms positively moderate the relationship between innovation capability and the global business performance, measured in terms of financial and nonfinancial aspects, as customer retention, employee productivity,

market share growth and rate of return on capital. The regimes, except the ones related to technological capabilities, are found to have a positive influence on the overall firm performance.

Since most of the above-mentioned studies focus on large firm innovative performance, disregarding the economic performance, our aim is to test whether there is a significant difference in terms of SMEs profitability between clusters defined according to firm appropriation strategies and propensity to generate both incremental and radical innovation.

3. Methodology

The sample of analysis is identified according to some considerations that reflect the aim of our research. The sampling technique adopted is defined as “purposive”; it allows to draw samples including specific areas or groups identified in a population, in order to satisfy certain conditions (Kerlinger, 1986; Short *et al.*, 2002).

In particular, we select firms which match the following *criteria*:

- micro firms and SMEs: with a turnover higher than 1 million of Euros;
- belonging to manufacturing medium-high tech industries [1];
- located in the Veneto region, where, although the economic context is constituted mainly by SMEs, the mean number of workers employed in R&D (Regione Veneto, 2011) and private investment in R&D are one of the highest in Italy (Regione Veneto 2013).

Based on these conditions, a final sample of 559 firms is obtained.

To carry out the data analysis, we use a two steps methodology. Firstly, we employ a panel analysis on a set of secondary data in order to estimate the relationship between patents and SME economic and financial performance. Secondly, a cluster analysis on primary data, obtained through a questionnaire, is performed. In the following paragraphs we describe the two methodologies in deep details.

We employed the softwares Stata and SPSS.

3.1 First step: panel analysis

The impact of patents on firm economic and financial performance is investigated using a panel data set of 559 Italian SMEs belonging to the three industries described before which span the period from 2000 to 2012.

Independent variables

In this study, data for patents are drawn from Thomson innovation, a database with global coverage provided by Thomson Reuters.

In line with previous researches (Putnam, 1996; Harhoff *et al.*, 1999; Belderbos *et al.*, 2010; Agostini *et al.*, 2013), we rely upon patented invention, which refers to a patent family instead of a single patent. A patent family comprises all patents, filed in different countries, which protect the same invention disclosed by a common inventor (OECD, 2009). Technically, it represents the set of patents, or applications, filed in several countries that are related to each other by one or more common priority filings.

Patent families can be considered as a measure of firm innovative activities since, in combination with early priority date, allows to identify the original protected invention that in consecutive years, might have been filed in the patent offices of other countries, and thus, avoid the risk to count more than one time the same protected invention. For this reason the earliest priority date is considered as the reference date, because it best reflects the period of generation of the original invention (Schmoch *et al.*, 1988).

In particular, we use a stock measure instead of a flow one; this means that the iterative sum of patent families of two, three, four and five years is used to assess the impact on firm performance of the subsequent year. In fact the benefits deriving from patents are likely to persist in the future and may show a cumulative effect (Grabowsky and Mueller, 1978; Bloom and Van Reenen, 2002; Eng & Keh, 2007; Agostini *et al.*, 2013); furthermore, SMEs generally face resource constraints and might need more time to reap the benefits of their investments.

Dependent variables

The impact of patent families on economic and financial firm performance is assessed through two profitability indexes, Return on Assets (ROA) and Return on Equity (ROE).

Data from balance sheets, collected from AIDA database by Bureau Van Dijk, are used to compute the value of ROA and ROE.

Using these two indexes as a measure of firm performance, rather than sales, provides a more complete information about firm profitability: ROA represents the capacity of a firm to generate profits from its assets, while ROE shows how well investment funds are exploited in order to generate earnings growth. Table 1 reports the descriptive statistics for the initial entire sample of firms.

TABLE 1: DESCRIPTIVE STATISTICS

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
MEAN SALES [M€]	7786.4	7927.4	8645.7	9076.0	9451.9	9836.2	9250.0	9701.0	10128.2	10061.2
MEAN ROA	6.96%	7.02%	6.89%	7.90%	8.48%	6.39%	4.92%	5.41%	5.86%	4.22%
MEAN ROE	1.90%	7.08%	6.89%	6.47%	9.48%	7.56%	2.81%	4.40%	9.62%	11.80%

Control variables

Consistently with previous empirical studies on innovativeness and firm performance that used firm size (Lin and Chen, 2005; Chang *et al.*, 2012) and firm age (Demirel and Mazzucato, 2012; Kim *et al.*, 2012) as control variables, we include both of them in the first part of our analysis, in order to provide as much detail as possible.

In particular, we define SMEs size through firm total assets and firm age through the years since foundation. In our case, control variables have been log transformed because raw data were skewed.

Method of analysis

In line with our previous studies, we adopt cross-sectional time series-regression to investigate the association between patent families and firm profitability, in terms of ROA and ROE. After testing the assumption performing the Hausman test, we use the fixed effect model, instead of the random one, to remove all between-firm variance and thus controls for any time invariant unobserved heterogeneity among firms (Chang *et al.*, 2012). So, the fixed effect with firm and year dummy variables serves to control for multiple observations per firm and per year (Artz *et al.*, 2010).

Based on previous literature (Basberg, 1983; Schmoch *et al.*, 1988; Griliches *et al.*, 1991; Ernst, 2001; Agostini *et al.* 2014) which states that a time lag of up to five years is needed between first patent filing and its effect on firm performance, we use the following panel models, where each equations include four diverse models testing how different year aggregates impact on firm profitability of the subsequent year:

$$ROA_{i,t} = \beta_0 + \beta_1(\sum_{\tau} \text{Number of patent families}_{i,\tau}) + \beta_2(\text{Firm assets}_{i,\tau}) + \text{Error term} \quad (1)$$

$$ROE_{i,t} = \beta_0 + \beta_1(\sum_{\tau} \text{Number of patent families}_{i,\tau}) + \beta_2(\text{Firm assets}_{i,\tau}) + \text{Error term} \quad (2)$$

In particular $i = 1, 2, \dots, N$ represents the firm identifier, $t = 1, 2, \dots, T$ is the number of periods, $\tau = t-1, t-2, \dots, t-5$ is the year aggregates, β_0 is the intercept, while β_1 and β_2 are the regression coefficients.

3.2 Second step: cluster analysis

As underlined before, the aim of this second part of the analysis is to identify potential subsets of firms having different innovation behaviours with particular reference to appropriation strategies and the generation of incremental and radical innovation, and then test whether there is a significant difference in terms of profitability between these groups.

To this end, the 559 firms of the entire sample were invited to take part to an on-line survey that focused mainly on the overall firm approach in developing, exploiting and protecting innovations. 100 useful questionnaires were received, corresponding to a response rate of about 17.5%.

Combining part of the primary data from the questionnaires with the correspondent economic and patent information contained in the initial dataset, we then conduct a cluster analysis.

Cluster analysis represents one of the different statistical techniques that heuristically sort observations, in this case the firms who answered the questionnaire, into homogeneous sets or groups, called clusters, based on certain characteristics.

Clustering variables

The variables employed to define groups refer to the appropriation regimes and the innovation capability.

According to Ritala and Hurmelinna-Laukkanen (2013), we thus employ four variables related to the perceived effectiveness of different appropriability mechanisms: secrecy, lead time advantage, employee skills, control of distribution networks; these variables were evaluated on a 7-point Likert scale. Additionally we also use, as clustering variable, the total number of patent families own by a firm, because they reflect how much it is inclined to protect its innovations through patents. We also include the innovation ambidextrous capability (Lin and McDonough, 2011), measured as the product of the propensity of firms to develop incremental and radical innovation, since it leads to market opportunities that appropriability regimes might support to profit from (Lawson *et al.*, 2012). These last two variables are measured on a continuous scale.

Method of analysis

Since variables are measured on different scale levels, as just explained, the algorithm adopted to conduct the study is the “two step cluster analysis”, that has been specifically designed by Chiu *et al.* (2001) to handle categorical and continuous variables simultaneously. For the same reason, we use the Log-likelihood distance measure, instead of the Euclidean one.

After conducting the cluster analysis, a t-test is carried out in order to verify if the clusters of firms show significant difference in terms of profitability (ROA and ROE).

4. Results

4.1 First step: panel analysis

Tables 2 summarises the results of the panel analysis for the two dependent variables, ROA and ROE, for all year aggregates.

TABLE 2: RESULTS OF THE PANEL ANALYSIS

DEPENDENT VARIABLE: ROA				
	Model 1 (2Y)	Model 2 (3Y)	Model 3 (4Y)	Model 3 (5Y)
PAT	-0.0002 (0.768)	0.0001 (0.926)	0.0002 (0.805)	0.0008 (0.238)
FIRM SIZE	0.0677*** (0.000)	0.0677** (0.000)	0.0824*** (0.000)	0.0630*** (0.000)
FIRM AGE	-0.0018*** (0.000)	-0.0018*** (0.000)	-0.0018*** (0.000)	-0.0016*** (0.000)
R-SQUARED	0.68	0.68	0.69	0.71
NUMBER OF OBSERVATIONS	4725	4725	4360	3939
DEPENDENT VARIABLE: ROE				
	Model 1 (2Y)	Model 2 (3Y)	Model 3 (4Y)	Model 3 (5Y)
PAT	-0.0006 (0.765)	-0.0014 (0.400)	-0.0009 (0.567)	-0.0003 (0.830)
FIRM SIZE	0.0267** (0.031)	0.0268** (0.031)	0.0466*** (0.001)	0.0519*** (0.001)
FIRM AGE	-0.0063*** (0.000)	-0.0063*** (0.000)	-0.0070*** (0.000)	-0.0062*** (0.000)
R-SQUARED	0.33	0.33	0.36	0.39
NUMBER OF OBSERVATIONS	4622	4622	4268	3858

Table 2: panel regression models for the dependent variable ROE

** significance at 5% level

*** significance at 1% level

While both control variables, firm size and firm age, are positively associated to firm performance, proxied by ROA and ROE, on the other hand, results suggest that these profitability indexes are not positively influenced by patents families. Thus, H1, which predicts no impact of patents on firm performance, is supported.

4.2 Second step: cluster analysis

Then, in order to better investigate the association between firm ability to generate innovation and benefits arising from these activities, we perform a cluster analysis. The analysis highlights that, within the firm sample that answered the questionnaire, two different clusters can be identified. Some descriptive statistics of the variables used to define them are presented in Table 3

TABLE 3: DESCRIPTIVE STATISTICS OF THE CLUSTERING VARIABLES

	CLUSTER 1			CLUSTER 2		
	Obs	Mean	Std Dev	Obs	Mean	Std Dev
LEAD TIME	51.315%	5.308	1.260	48.684%	3.108	1.680
SKILLED EMPLOYEES	51.315%	4.820	1.667	48.684%	3.027	1.691
CONTROL OF DISTRIBUTION NETWORKS	51.315%	3.153	1.570	48.684%	3.513	1.938
SECRECY	51.315%	4.077	1.840	48.684%	4.729	1.557
PATENT FAMILIES	51.315%	0.487	1.374	48.684%	1.784	4.535
INN. CAPABILITY	51.315%	29.008	11.038	48.684%	23.675	10.739

Results of the analysis show that “Cluster 1” is characterised by a higher ability to develop both radical and incremental innovation than the other group of firms and rely more upon informal mechanisms of protection, especially lead time; on the other hand, “Cluster 2” although gives a certain importance to non-legal regimes, in particular to secrecy, it has a greater tendency to protect its innovations through patent than “Cluster 1”.

From the point of view of firm performance, the mean values for the two clusters are presented in Table 4.

TABLE 4: MEAN VALUES OF ROA AND ROE FOR THE TWO IDENTIFIED CLUSTERS

	CLUSTER 1		CLUSTER 2	
	Obs	Mean	Obs	Mean
ROA	53.521%	7.45%	46.479%	4.06%
ROE	53.521%	16.81%	46.479%	5.28%

Both ROA and ROE seems to be higher for the first cluster. In order to statistically verify this difference, we perform the t-test that confirms that the means of the two indexes are significantly different between the groups, as shown in Table 5 (first column).

TABLE 5. VALUES OF THE T-TEST

	T-TEST	(MEAN1 > MEAN2)	(MEAN1 < MEAN2)
ROA	2.0102*		

ROE	(0.0483)	0.0242*	0.9758
	2.4297*		
	(0.0178)	0.0089*	0.9911

*Level of significance < 0.05

Looking at the second and third columns, we understand that the mean values of ROA and ROE of SMEs belonging to the first cluster are significantly higher than those of SMEs belonging to the second cluster.

5. Discussion and conclusions

The aim of this paper was to investigate the impact of different appropriability regimes on firm economic and financial performance. Our results show that the number of patent families owned by a firm are not associated to its economic and financial performance; instead, firms characterised by higher innovation ambidexterity and relying upon time-to-market and human resource know-how register a higher profitability than firms with a higher tendency to rely upon patents and secrecy.

We argue the first evidence is mainly due to the lack of specific know-how regarding IPRs on the part of SME entrepreneurs who are too much involved in routine and operative activities, thus having no time to build a longer term strategy encompassing the IPRs. More frequently, not only entrepreneurs have time constraints, but also they would not even know how to exploit these assets, as some other authors argued (e.g., Agostini *et al.*, 2014). It must be recognized that the actual patent system is designed more for large firms than for smaller ones (Brower and Kleinknecht, 1999), which makes entrepreneurs argue whether the investment is worth doing.

On the other side, the second evidence confirms that more profitable firms have an inclination towards protecting their innovations through informal appropriability mechanisms. In particular, time-to-market and human resource know-how seem to be significantly different between the two clusters. This means that rapidly launching in the market an innovation which has been developed thanks to unique competencies of people working inside the firm leads to higher profits for SMEs. Actually, innovative SMEs are supposed to resist the pressure of large firms thanks to their high specialization and flexibility which allow them to be a pioneer/forerunner in the market and have some form of advantage in respect to larger firms (Olander *et al.*, 2007; Thomä and Bizer, 2013). These evidences are in line with Laursen and Salter (2005) stating that when firms put an over-emphasis on protection, especially through intellectual property or secrecy, rather than on the exploitation of their innovation, they might face a deterioration of innovative, and thus economic, performance. Results of this paper have useful implications both for the empirical research and management practice regarding the influence of patents and appropriability regimes on firm economic and financial performance.

From a managerial point of view, results suggest that, as patenting activity is expensive, especially for SMEs that face resource constrains, the nodal point is not to possess a patent portfolio, but to understand how to manage and exploit it strategically, in order to generate economic benefits from this kind of investment. Otherwise, the risk for SMEs is to spend large amounts of money in order to register and maintain patents, neither gaining an effective protection of their innovations, which is the primary driver towards SME patenting, nor reaping any economic benefit. Moreover, managers might face a tricky trade off, on how much disclosure or strictly protect the innovations, when defining the firm appropriation strategy (Laursen and Salter, 2005), which calls for attention and consciousness towards these topics.

From a theoretical viewpoint, our contribution builds upon previous literature in order to shed light on the under investigated issues regarding appropriation strategy and its effect on economic and financial performance in the micro and small-medium firm context. In addition, the combination of different statistical instruments proves particularly useful when addressing complex issues which need to be examined from different perspectives.

Our paper has also some limitations that could be overcome by further future research. Firstly, the little dimension of the sample used to perform the cluster analysis should be enlarged, e.g. through a new survey in other high-tech industries, in order to understand whether the results of this study can have a broader scope of validity. Secondly, the Italian context in which the analysis is embedded contains a number of specificities which prevents from generalizing our findings. Hence, the same analysis could be replicated in other countries. Thirdly, proving that

it is a multifaceted matter, this study suggests the use of case studies to explore the dynamics of SME appropriability regimes in deeper details.

References

- [1] Andries, P., & Faems, D. (2013). Patenting activities and firm performance: Does firm size matter? *Journal of Product Innovation Management*, 30(6), 1089-1098.
- [2] Arora, A., Ceccagnoli, M., & Cohen, W. M. (2008). R&D and the patent premium. *International Journal of Industrial Organization*, 26(5), 1153-1179.
- [3] Arrow, K. (1962). Economic welfare and the allocation of resources for invention. The rate and direction of inventive activity: Economic and social factors (pp. 609-626) Nber.
- [4] Artz, K. W., Norman, P. M., Hatfield, D. E., & Cardinal, L. B. (2010). A longitudinal study of the impact of R&D, patents, and product innovation on firm performance. *Journal of Product Innovation Management*, 27(5), 725-740.
- [5] Arundel, A. (2001). The relative effectiveness of patents and secrecy for appropriation. *Research Policy*, 30(4), 611-624.
- [6] Arundel, A., & Kabla, I. (1998). What percentage of innovations are patented? empirical estimates for european firms. *Research Policy*, 27(2), 127-141.
- [7] Austin, D. H. (1993). An event-study approach to measuring innovative output: The case of biotechnology. *The American Economic Review*, , 253-258.
- [8] Basberg, B. L. (1983). Foreign patenting in the US as a technology indicator: The case of norway. *Research Policy*, 12(4), 227-237.
- [9] Belderbos, R., Faems, D., Leten, B., & Looy, B. V. (2010). Technological activities and their impact on the financial performance of the firm: Exploitation and exploration within and between firms*. *Journal of Product Innovation Management*, 27(6), 869-882.
- [10] Bessler, W., & Bittelmeyer, C. (2007). Performance and survival of technology firms: The impact of intellectual property. *Empirical Entrepreneurship in Europe—New Perspectives*, Cheltenham, UK, Edward Elgar, , 155-176.
- [11] Bloom, N., & Van Reenen, J. (2002). Patents, real options and firm performance. *The Economic Journal*, 112(478), C97-C116.
- [12] Bosworth, D., & Rogers, M. (2001). Market value, R&D and intellectual property: An empirical analysis of large australian firms. *Economic Record*, 77(239), 323-337.
- [13] Brouwer, E., & Kleinknecht, A. (1999). Innovative output, and a firm's propensity to patent.: An exploration of CIS micro data. *Research Policy*, 28(6), 615-624.
- [14] Burrone, E. (2005). Intellectual property rights and innovation in SMEs in OECD countries. *Journal of Intellectual Property Rights*, 10(1), 34-43.
- [15] Ceccagnoli, M. (2009). Appropriability, preemption, and firm performance. *Strategic Management Journal*, 30(1), 81-98.

Please contact the authors for the complete list of references.

End notes

¹ Industries were selected on the basis of ATECO codes that are respectively: 2660, 298993, 3092, 32501, 32503, 46463, 4774 for biomedical, 1721, 2222, 282930, 2895, 2896 for packaging and 2825 for refrigeration.

Internationalization of Technology Startup Firms from Emerging Economies: Leveraging Intangible Assets in Turbulent Environments

Ricardo Arechavala-Vargas, arechavala@alumni.stanford.edu

Francisco Leonel-de-Cervantes, chopancho@gmail.com

Mónica García-Mora, pqnamony@hotmail.com

Universidad de Guadalajara, Mexico

Internationalization of Technology Startup Firms from Emerging Economies: Leveraging Intangible Assets in Turbulent Environments

Abstract

Rapidly internationalizing technology firms from emerging economies are a recent phenomenon. They are the result not only of efforts by governments to diversify and expand their economies, focusing on higher value added products, but also from a wider fields of technological business opportunities available to entrepreneurs. For these firms early internationalization is often not only an option, but a necessity. In those cases where technology is the foundation for developing high-value added products or services, it is frequently the case that startup firms cannot easily find domestic markets ready to pay higher prices for their products or services. In order to access more industrialized markets, technology firms from emerging economies need to be more skilled in leveraging their intangible assets. The challenge for them, however, is that usually the institutional context in which they work is not developed enough to support these efforts in the same way as they do in more industrialized economies. Emerging economies tend to present both institutional weaknesses and market failures that hamper the ability of firms to properly manage their knowledge assets. Intellectual property regimes are usually weaker, and knowledge sources tend to be scarce locally, for example. Thus, technology firms need to manage their assets wisely and with more agility, in order to survive in international markets. Knowledge management becomes a key issue for technology firms very early in their development. Using case studies from Mexico, we study the networking behavior that technology startup firms use in order to identify, assess and assimilate knowledge they need in order to succeed in international markets. For these firms, knowledge acquisition and management tends to be inextricably linked to adapting their business models rapidly in order to take advantage of local and global networking opportunities they need when entering international markets.

Research on Internationalization Processes: Where are We?

Research on internationalization processes has come a long way since the work of Johanson and Wiedersheim-Paul that has come to be known as the Uppsala Model (Johanson & Wiedersheim-Paul, 1975). Many research studies have contributed to our current understanding of the internationalization process of a firm. Some of them have established the specific traits of such a process for multinational corporations, while others have documented the particularities that it has for small and medium enterprises (Bell, Crick, & Young, 2004). Technology tends to be an important factor in internationalization processes (Gassmann & Keupp, 2007; Huan Zou, Xiaohui Liu, & Ghauri, 2010), since it enables greater ability to adapt to foreign markets, while at the same time it requires wider markets in order to recover investments in R&D that the firm makes.

Internationalization places severe demands on the firm's ability to learn and to adapt to new environments (Eriksson & Johanson, 1997), including the adaptation and reconfiguration of their business models (Casadesus-Masanell & Ricart, 2010; Onetti, Zucchella, Jones, & McDougall-Covin, 2012).

The emergence of firms that internationalize rapidly after their creation, without going through the phases that the Uppsala model posits, has been also studied, giving rise to the "born global" concept (Brännback, Carsrud, & Renko, 2007; S. Chetty & Campbell-Hunt, 2004; Knight & Cavusgil, 2004). Here, again, technological capabilities and opportunities play a strong role in shaping the rapid internationalization that these firms undergo (Freeman, Hutchings, Lazaris, & Zyngier, 2010; Lee Li, Qian, & Qian, 2012). Born global firms, however, do not operate by themselves, their internationalization process tends to depend heavily on networks of alliances that they rapidly build (Fernhaber & Li, 2013; Freeman, Edwards, & Schroder, 2006).

Technology-based Firms from Emerging Economies: A New Actor in Global Markets

Many forces explain the increase in the number of "born global" firms from advanced economies, including the increasing complexity and reach of global supply chains, the globalization of markets, and advances in transportation and communication technologies (Bell et al., 2004; S. Chetty & Campbell-Hunt, 2004; Knight & Cavusgil, 2004; Oviatt & McDougall, 2005; Shane, 2001). According to this view, international new ventures are

made possible when ownership of valuable assets, and technological assets in particular, provides a sustainable competitive advantage that is transferable to foreign locations (Oviatt & McDougall, 2005)

But these same factors do not necessarily explain the increasing number of “born-global” firms from emerging economies, particularly since resources are not as readily available to them. Since their creation, technology firms from emerging economies face competition from incumbent firms from advanced economies, and many institutional factors in their economies are much less favorable than those available to firms from industrialized economies (Zhu, Hitt, & Tihanyi, 2006). The usual explanations for the rise of technology-based new firm formation in advanced economies (Almus & Nerlinger, 1999; Collinson & Gregson, 2003; Ganotakis & Love, 2012; Shane, 2001a, 2001b) are not readily applicable to their counterparts from emerging economies, since the economic environments in both cases show strong differences.

In the last decade a growing number of start-up firms from emerging economies are entering international markets on the basis of stronger technological assets, and are finding opportunities by being highly creative in their business models, frequently relying in resources that lie in the networks they build, rather than undertaking internationalization processes on their own (Che Senik, Scott-Ladd, Entekin, & Adham, 2011; De Clercq, Danis, & Dakhli, 2010; Huan Zou et al., 2010; Zahra, Matherne, & Carleton, 2003). Particularly in Latin America, lack of international experience, and relative unavailability of technological knowledge, has had a strong impact on the business models and in the strategies available to entrepreneurs. Learning processes for entrepreneurs who venture into international markets have therefore been intensive, for they have to explore and exploit opportunities at an accelerated pace (Keen & Wu, 2011), and with relatively less resources than their counterparts from developed economies, in order to offset their late comer disadvantages (Yadong Luo & Huaichuan Rui, 2009).

In order to successfully enter international markets, startup firms from emerging economies have to contend with more resourceful competitors, and thus need to leverage their intangible assets and capabilities, adapting quickly to new circumstances. Since they do not have the same amount of R&D infrastructure (whether internally or in their immediate economic environment), they need to leverage their intangible assets by actively seeking resources and capabilities by building networks and alliances (Huan Zou et al., 2010; Zahra et al., 2003) that enable them to rapidly detect and exploit business opportunities.

Given that usually their resources (including infrastructure, financial and human capital, for example) are much fewer than those of their counterparts from developed economies, an important issue seems to be to understand the ways in which these firms identify technology-based entrepreneurial opportunities in international markets, and the ways in which they rapidly learn what they need, including the rapid adaptation of their business models, in order to successfully compete in them.

Even though there are significant differences between new technology-based firms in advanced economies and those from emergent economies, such as the availability of venture capital, the level of the technology, and R&D infrastructure, for example, it is important to understand the differences in business model design and adaptation between the two groups, and the strategies they follow as they endeavor to enter international markets.

We present results from a case study research project that aims to understand the processes through which entrepreneurs from Latin American economies search, identify, and take advantage of technology-based business opportunities in international markets, competing against firms that have access to considerably more technological resources and capital. We use case studies and in-depth interviews from twenty technology-based firms from several industries: veterinary pharmaceutical, biotechnology, food supplements, and embedded systems, in order to develop a model of these processes. Cases were selected among firms in Western Mexico that have undertaken rapid internationalization processes without having developed first a strong domestic market base. Even though in none of these cases technological assets are at the level of leading edge or disruptive technologies that are common in more industrialized economies, they have in common the fact that their business opportunities rely primarily on technological knowledge assets, rather than in production infrastructure, capital or extensive marketing capabilities.

Method

Technology-based firms are a recent phenomenon in emerging economies. Relatively few cases are available, and there is therefore little basis on which to attempt generalizations. We present results from a multiple case study research project that aims to understand the processes through which entrepreneurs from Latin American economies search, identify, and take advantage of opportunities in international markets, competing against firms that have access to considerably more technological resources and capital. We use a grounded theory approach in order to map the ways in which entrepreneurs search for technology-based economic opportunities, and the ways in which they build and adapt their business models in order to compete internationally.

We use case studies and in-depth interviews from nine technology-based firms from several industries: veterinary pharmaceutical, biotechnology, food supplements, and embedded systems, in order to develop a model of the technological knowledge space in which entrepreneurs search for opportunities, the rules they use to decide upon those opportunities and the business models they use to exploit them, and upon collaboration opportunities they encounter in their environment. Cases were also selected on the basis of their variability as to their technology sources, business models and internationalization strategies, in order to highlight the similarities and differences in the ways entrepreneur detect, realize (enact) and take advantage of business opportunities in international markets. Appendix 1 presents a summary table of the cases' characteristics.

To our knowledge, there is little prior research in this area. We therefore have decided to use a grounded theory approach (Corbin & Strauss, 1990; Glaser & Strauss, 1967), in order to constructively build a model of the process for firms from emergent economies, by identifying patterns that emerge in the data from different case studies (S. K. Chetty & Hamilton, 1993; S. Chetty, 1996; Eisenhardt, 1989).

With the objective of generating relevant theory, however, we have relied on the multiple case study approach (S. K. Chetty & Hamilton, 1993; S. Chetty, 1996; Yin, 2009). Case study design has been made with the general purpose of understanding: a) the role technology has in their business strategies, as an intangible asset; b) their motivation to enter international markets; c) the criteria they use in deciding to adapt their strategies and business models, as they face international competition and resource limitations, and d) the reasons and motivations they have for networking and collaborating with other organizations. In order to achieve this, several data sources have been used in each case: on-site visits and field observation, in-depth interviews with the entrepreneurs and their key managers (when applicable), content analysis of available documents (of business plans, websites, patents, business intelligence documents, for example), when available.

Results

Knowledge of previously existing technology as an intangible asset. A very salient feature of the companies participating in this study is that they do not work with radically new or disruptive technologies, but they rather exploit opportunities derived from available knowledge and technologies.

For firms operating in industries where the presence of MNC's has been strong in the country, it is usually a secure bet to rely on expired patents in order to develop products with reasonable presence in the market. The firms selected for this study, however, were firms unwilling to participate in such domestic markets, because profit margins are too small and successful products are usually copied very soon. These firms rather invest in rapid product improvement to the point that products cannot easily be copied, and soon realize they have a product with a viable international market.

A significant source of business opportunities is further development of commercially available technologies, frequently overcoming barriers that used to be considered insurmountable by pioneer firms (usually from advanced economies). In many instances these barriers are overcome by exploring avenues that were not considered worthwhile by companies that initially developed specific products.

"As a firm we have developed products and broken long standing paradigms. Some of the substances we work with were considered to be essentially non-soluble, and we have managed to make them soluble. Our key resource is our personnel problem-solving capabilities. We have a few people who are very adept at transforming information into knowledge in order to solve problems and in order to detect new product development opportunities. If we see an opportunity, and there are many of them, we look at the literature and find things that might not be new, but

that are not being used (...) Our main tool is information and knowledge management... to find whatever we need to go on with a project, and we collaborate with high-level university laboratories that have sophisticated equipment and researchers to do the science we need."

Entrepreneurs are well aware of scientific literature and the work at university labs in their product domains. Whether they have been able to identify a business opportunity from published research, or whether they systematically use it to develop new products, they are well aware of the economic value of specialized knowledge. Company B manufactures a product derived from agave, and initially identified the opportunity from results reported by public R&D labs:

"The original idea came from being aware of basic research reported by public R&D laboratories, in neighboring states and here in Jalisco. (...) they began to report on the existence, well the existence and some interesting effects of prebiotic substances in agave. We took that idea and applied it to our industrial project, looking to commercially exploit those products (...) but we did start from academic literature and began to make our own adaptations (...) we collaborate with them, since they do all the scientific validation that stays in publications. What we aim is to add value to scientific knowledge and to generate a value chain for industry, from the producer to the end product."

Company K has come to rely on their mastery of scientific and technical literature as their main line of business. Instead of directly commercializing its products, it has become a contract manufacturer for domestic as well as foreign markets.

"We can develop nutritional supplements to order. Our clients commercialize our products under their own brands, and request from us products with specific properties, in order to attend to needs they have identified in the market. We are able to use scientific and technical literature to develop tailor-made products, according to their specifications."

Whether working on the basis of expired patents, or directly from the scientific and technological literature, firms need to do in-house R&D. They usually resort to grants and funding from public economic development organizations. Although some of them have access to private capital, it is not venture or angel capital. Since they are not firms that already have a strong domestic market base, they operate on tight schedules and under pressure from funding agencies or private sources to deliver milestones and become profitable in the short run.

"The main problem I have had to deal with as an entrepreneur? ... to deal with our investors and get them to be patient, and maintain their confidence in our project."

"We will wait for public funding of our R&D project. We will try to advance on our own resources, but there's no way we can come up with that level of funding for the project."

Even though firms in our study do not yet have a strong domestic market base, they make extensive use of global networks and knowledge pipelines. They are able to do this mostly because of their background in multinational corporations, because of their business experience abroad, or because of having obtained graduate degrees in prestigious universities in other countries. They are able to leverage their technological assets by using their networking capabilities, both locally and abroad.

"We interact continually with researchers in other places, in other countries; we rely on communication technologies in order to maintain our contacts in other countries, and to collaborate with them. That is of the utmost importance."

Drive and strategy for internationalization. Since the sources of opportunities are technology based, and not built around traditional product or process knowledge, there is frequently no significant domestic market available, or its institutions and competition rules are not mature enough to make them worthwhile.

"We are not as interested in the domestic market as we are in the international one. Our challenge is to compete with multinational corporations. We are able to develop better products, by improving on what is available, and we have a cost advantage over them. We are not a significant threat for them, for our sales are less than one percent of theirs. They make their decisions globally, not locally. Locally we face copycats; they will copy our formulations, our products, even our labels. Sometimes they might even have stronger marketing capabilities, but we have the know-how."

"There is no significant domestic market for our product. Consumers are reluctant to change their purchasing behavior, so we have decided to better address foreign markets, where consumers are more educated as to the (health) benefits of our product, and willing to pay for it; foreign markets are much more lucrative."

“I have come to learn that organic products are heavily demanded in the world, and we have tried to learn more about it, getting information from different sources, and we have confirmed that there is no strong demand for organic fertilizers in the country, since there is little faith in organic products, so then, what we are doing is to export our product to Canada, and we are in the process of getting ready to do it, since over there they have a lot more faith in organic products, even knowing that in Mexico there will be a much stronger demand for them in one or two decades...”

Due to entry barriers being similar (because of domestic markets are being liberalized, but at the same time homologation with international regulations is taking place), or even harder to overcome, in many cases entrepreneurs prefer foreign markets, because they are more lucrative.

“We found that, in order to enter successfully in the domestic food ingredient market, we would need production and logistic capabilities far superior, by orders of magnitude, to what we have at this stage. The major market in this area is monopolistic, so their purchasing power enables them to require from their suppliers conditions that are far above those that we can deliver, so we have decided to address niche international markets, which are much more profitable.”

Entry barriers are not necessarily easier to overcome in international markets, but their attractiveness makes it worthwhile to invest time and resources in order to overcome them:

“Through our collaboration with (university institute) we began to find out that our product would be very well accepted in Europe and in the United States, if we can scientifically prove its value, which we can, but we have to wait for scientific validation of the product’s properties (...) we have partnered with a university in France and with the National Nutrition Institute, since we need that scientific publications validate the health properties of our product, because this is required by regulations in those markets (...) but we want our products to gain international recognition...”

Rather than limitations in the availability of technological knowledge, marketing capabilities tend to be the major constraints in the realization of knowledge-based entrepreneurial projects, which is only natural, given the fact that these firms do not have a strong domestic market base to use as a springboard into international markets. Since they also have little knowledge about foreign markets, they are forced to quickly change and adapt their business models in order to make their enterprises viable. Entrepreneurs quickly adapt their strategies accordingly.

“As I learned that the major domestic market for (my product) is monopolistic in the country, I also realized that, even though I can deliver a product of a much higher grade and quality, I could not possibly deliver the product in the quantities, places and financing conditions that customers demand, so I had to turn to other less profitable markets, such as animal feed producers. I decided I would do this in order to finance our growth into foreign markets.”

“We quickly found out that our product could not be nearly useful if sold on its own, since it needs to be used as part of a technological package that includes many other organic producing practices. So we learned to partner with organic produce firms, and share risks with them. Now that has become one of our major credibility sources. (...) But we found out that the product can easily be used by organic producers abroad, so exporting it has become an easy task.”

For firm C, who commercializes its product in bulk, mastering the technological aspects of its business has not been a big an issue as mastering the business aspects, and it has had to change its business model several times:

“I found out that I could easily control the technical aspects of production, being able to manufacture (the product) to specifications beyond any of my competitors (...) but I found no significant domestic market for such a product, so I began to attend fairs and exhibitions, and soon found foreign customers (...) I know they package and label (my product) under their own brand, and that they take away most of the profit, but I cannot do it. I wouldn’t know how to do it, since I do not know their market, their regulations, and so on.”

Company S started out doing contract manufacturing for domestic and multinational firms, but soon found out that it could help them to find needed technologies from local and foreign sources, so it started to change its business model in order to become a hub that connects demand and supply of innovations and technology in the veterinary pharmaceutical industry. As of this writing, it is also going into clinical research services for both foreign and domestic companies, with the aid of international partners.

It is not infrequent that opportunities are found only under the tutelage of business support organizations, that provide business and market intelligence to the entrepreneurs, and who work extensively with them in order to grow and strengthen their business networks.

Collaboration and networking

As in firms from advanced economies, the firms' limited resources are leveraged by networking and outsourcing, both locally and internationally. This is particularly true when research infrastructure is an essential tool.

As opposed to traditional firms, the possibility of forming joint venturing and partnering is not out of the question, when it is seen as convenient in order to achieve their business goals:

"In order to enter the shelf products for human consumption market, I must learn about foreign regulations on the matter, so we have turned for help to public and private organizations that help us in this matter. (...) We decided that Europe was the more attractive market for our product, so we are setting up a joint venture with European partners, in order to develop products appropriate to that market, and in order to learn about applicable regulations."

"Since we are a small company, we are not able to export on our own and have success in foreign market, so we have formed an exports consortium with firms in a situation much similar to ours (...) we like to say that here in the domestic market we are rivals and competitors, but in foreign markets we are partners."

"In order to grow our international operations we have understood that we need local (foreign) partners. They have helped us tremendously with their knowledge of local markets, frequently becoming also investors in our business."

Product development is one of the main issues in collaborating with foreign firms, and not necessarily on the receiving end:

"So we met these people from Canada and found that they were looking to develop a gel formulation of the product, and indeed we could help them with it, at a much lower cost than it would mean for them to develop it over there."

Leveraging technological capabilities through networking, partnerships and alliances is a given for those firms included in this study, as a radical departure from the typical behavior of traditional firms, where owner/founders are very oriented towards secrecy an isolation, and more akin to what happens with high technology new ventures from advanced economies:

"We still have a lot to do in new product development (...) in biotechnology (...) in bioremediation, and in other areas, because we have people who are well prepared to do so (...) there are people in the networks in which we work so that we can innovate in almost any product. Look, here in the network in which we operate there are more than a hundred people that are doing research or working to obtain their graduate degrees by developing vaccines, or biotechnology products, or new pharmaceutical products... What we do directly is very little, because we are few, but our connections with high-level researchers are extensive."

"(...) We know the best technical personnel in the country in the veterinary field, and in the R&D environments, we could say (...) we have developed the skill to connect with a group of high-level researchers, both at the national level and globally; that is what the Internet is useful for now, and what we want is to take advantage of all the resources that this makes available, right?"

These firms do not passively absorb knowledge from their partner institutions. Company B is well aware of this. The entrepreneur is very conscious about the flows of knowledge in the network, and about the roles different actors play in it:

"In terms of research protocols, our dealings with the National Nutrition Institute to bring, not to our firm, but to an institution in (our state), in this case university X, the ability to determine the presence of probiotic microorganisms. We worked as a liaison between laboratories, and now the laboratory in the state already has that capability (...) we are about to do the same with all of the protocols in development. That is to say, what we are looking for is applicable results for our product, but the research institutions we work with finally retain the knowledge, and that is fine with us."

In enacting the realization of the business opportunities they detect, entrepreneurs design their business models, and then change them in order to adapt them to newly discovered constraints and opportunities, and in order to ensure their firm's survival and growth. Opportunities are frequently discovered along the way, with many promising avenues turning out to be unsuccessful, and many good opportunities discovered and enacted. In this search, however, it is previously available knowledge itself the founding stone for the search for new knowledge. This is consistent with the much cited work of Cohen and Levinthal (Cohen & Levinthal, 1990).

The fact that many of the firms participating in the study are able to identify opportunities by being aware of the scientific and technical literature underscores Shane's assertion (Shane, 2000) that the identification of an opportunity is dependent on the entrepreneur's prior knowledge is clearly borne out in the cases studied. Many of our interviewees explicitly acknowledge the fact that it is their previous background in MNC's and their post graduate studies that have enabled them to recognize and evaluate business opportunities.

However, in the cases studied we notice a significant difference in the general pattern that opportunity discovery and enactment shows, as compared to the usual pattern that can be discerned in technology-based firms from advanced economies. In this last group, the development of leading edge and disruptive technologies is at the heart of the entrepreneurial process. Once it is at hand, the entrepreneur and his associates immediately look to global markets as a means to recoup the investments made, and those about to be made in order to ready the product or service for distribution and consumption. This process is exacerbated because time to market is of the essence, in order to maintain the first mover advantage, and because technology life cycles tend to shorten with time. This leads the entrepreneurial team to invest massively in order to shorten the time to market.

On the other hand, for the firms we have studied the option to enter international markets may not be the only one at inception. In some cases, this option appears and improves in its attractiveness as different obstacles and alternatives lead the entrepreneur to consider entry into foreign markets. In those cases where international markets are the main option from the start, resources are limited, and usually dedicated to develop technological and production capabilities, at the expense of marketing capabilities.

In the task of further developing existing technologies firms from emerging economies indeed have a cost advantage, and relatively easy access to sources of knowledge and technology, as long as they are willing to partner and network extensively. This availability of knowledge determines to a large extent the possibility of improving on existing technologies and products, by exploring avenues that world technology leaders may have left unexplored.

Conclusion

Our results provide an important step in understanding the ways in which technology firms from emerging economies leverage knowledge as an asset in order to enter and compete in international markets.

In sharp difference to technology-based firms from advanced economies, those firms participating in our study work more on the basis of knowledge availability than on the basis of large resources for knowledge generation. Whereas the time to market imperative drives up the cost of knowledge generation in developed economies, in order to forestall competition, firms in emerging economies must adapt their technology development to the availability of financial resources. They seem to follow rather an imperative of discovering profitable markets that are accessible on the basis of their limited marketing capabilities.

Internationalization processes in technology based firms from emergent economies are likely not the result of the sudden realization of opportunities, or the result of rational strategic decision making at the outset, but rather the result of a complex process of "muddling-through", where opportunities are gradually discovered, lines of action initiated and abandoned, resulting in emergent strategies and highly adaptive business models, rather than the result of a deliberate objective defined at the outset.

In using the multiple case study method, we have attempted to research and portray the interaction among variables that shape decisions made by entrepreneurs as they seek to identify, enact, and exploit opportunities, with the aim to understand causal relationships that may explain the how and why they are made. Knowledge is an intangible asset, and therefore very difficult to dissect in order to understand its origins and the ways it is used when attempting to devise strategies and internationalization efforts. We have thus attempted to map the relationships among

distinct variables, in order, at this stage, to understand their causation interactions, rather than developing far-reaching generalizations. Since we find important differences in the ways these interactions occur for emerging economy firms, as opposed to those reported in the literature so far, we expect to be able to contribute to this field as it continues to develop and track the behavior and development of these firms.

References

Please contact author for the list of references.

Next generation Manufacturing: the Mediterranean Fab Lab case study.

Antonio Botti^{*}, abotti@unisa.it
Ezio Marinato^{**}, emarinato@unisa.it
Università degli Studi di Salerno, IT

Next generation Manufacturing: the Mediterranean Fab Lab case study.

Abstract

The main purpose of the paper is to outline a new entrepreneurial horizon targeted by the raising of a new way of manufacturing that could be defined as hi-tech handicraft. Currently, the business studies have gathered up the empirical application of technology advances in the way to estimate the effect produced by the networking and crowdsourcing on to production process. The paper focuses on the growing importance of digital manufacturing and fabrication laboratory network. The proposed research model is a case study approach, looking at the Mediterranean Fab Lab of Cava de' Tirreni (SA).

Introduction

It's now common the opinion that market and industry as well are changing. From the early 2000 years, we attended to the rise up of ideas and start-up movements; ICT was the only industry that challenged the economic downturn with strength. In fact, United Nation Conference on Trade and Development [63] shows a growing ICT global spending from 2005 to 2011; in 2011 the amount was 1.2 billion dollars. Simultaneously, researcher and entrepreneurs have tried to identify a new way to foster entrepreneurship and value creation. Emerging technologies and the evolution of social behaviors generated a shift in the production model. Innovation has become a fundamental driver of competitive advantages and the aim of small businesses' strategy. An alternative model took its birth, based on networking and open innovation dynamics [16]. The way to develop this model is to catch ideas from the outside [65], starting a co-creation process, based on crowdsourcing [30, 34] and open source resource, is even better. Co-creation implies the involvement of customers, in particular end-users, in the design and development of new goods and services, a competitive imperative [56, 65] because of they are source of information, competence, whose experience and needs could participate to value creation [55, 56, 64, 66, 67]. Therefore, if customers become to be perceived as co-producers in the information era they could be considered part of the collective intelligence [43, 37, 38, 39] that actively participate to the creation of innovation and to the social innovation movement, intended as a collective creative process shared by a plurality of actors [29; 41]. According to the Schumpeter's position [58] of the individual as a source of innovation, who naturally research solution to the problems throughout new ideas creation [5]. Clearly, it draws a line to the crowdsourcing that could be defined as a participative activity, expressly on line, in which the involved actors, via a flexible open call, participate voluntarily to a process sharing their knowledge and skills, in order to obtain and utilize the advantage produced from what they participated on (Estéllés-Arolas & González-Ladrón-de-Guevara, 2012) more easily defined by Howe [30] as a web based business pattern which make best use of the individuals on internet.

Literature review

Many authors [14, 32, 46, 28,7, 18] agree on the idea that all across the years technology has been considered a tool; moreover, technology is the result of R&D activities, which are made possible thanks to the knowledge production. Knowledge is cumulative, the main resource that could produces new flows of knowledge itself and new technology. In other terms, to produce new knowledge, we need a production factor that is knowledge itself that turn technology into an evolving tool [18]. This dynamic phenomenon is the origin of innovation. Knowledge is a very important impact factor; the reason why innovation is not only an enterprise's benefit, but a positive outcome widespread through the community. This is usually defined as spill over: knowledge oversteps the bound of organization hitting, voluntarily or not, all the members of the community [59].

Clearly, knowledge and innovation needs an ideal habitat to grow, where stakeholders' co-evolutive capabilities could be expressed in order to score the target of systemic innovation and opportunity creation [53]. Networking is the key. In fact, relationship networks are the place where knowledge based resources are traded [27]. Social capital [8] is the essential cultural infrastructure to create relationship and knowledge to trade. If we take the distance to the specific

topic of this paper, looking at the industrial district and technology cluster, we could notice that they are the right places where to co-evolution process usually takes its birth. In fact, district and cluster, describe a local frame almost integrated into which assets and know-how are easily exchanged, for example, from enterprise to enterprise [35].

Proximity is a necessary condition to foster co-evolution; Boschma [9] identified five different types of proximity: cognitive, organizational, social, institutional, geographic. The main shared peculiarity of all these shape of proximity is the easiness to realize interactive learning. Cognitive proximity can be realized when several individuals share the same basis of knowledge and technology competencies; organizational proximity is defined by hierarchical mechanism that leads relationship from the inside; social proximity refers to relationship and social connection need to trade one another; institutional proximity buds from shared rules, laws, regulation, habits, mores; finally, geographical proximity depends on the distance between stakeholders [53]. But what would happen if we tried to integrate both cognitive and social proximity? Maybe we could find a new place where to innovate. Both cognitive and social proximity [9] represent the base to create a trade of knowledge and competencies; on one hand, cognitive proximity entails the share of the same knowledge and technology basis between the actors of the network; on the other hand, social proximity entails the share of relationship and trust. It means that in that kind of perimeter is easy to maximize the one another learning and takeover process.

It seems that Fabrication Laboratory (Fab Lab) , so-called “*labs for fabrication*” [25, pg. 12], represents a model that mashes up the types of proximity described above. Being born out of Massachusetts Institute of Technology’s (MIT) Medialab in the year 2003, today they’re a real international network. By now the operation is well known, Fab Lab is a laboratory where people, thanks to hi-tech tools and machine, can create, manipulate and process different kind of material in order to “produce their own ideas”, supported by a team of technicians. Some talks about quick prototyping, some talks about democracy of manufacture [46, 25, 7, 26, 44, 48, 6, 18, 15, 45, 52], but what gives force to Fab Lab development is the widespread adoption of internet and the rapid diffusion of the new innovative expression of the “internet of things” [4, 42] side by side with the economic crisis and the cultural movement of makers¹.

Fab Labs seems to make true and transform into materials fictional ideas, thanks to digital culture, digital data and “*magic machine*” (Walter-Hermann & Bueching, 2013, p.10). Personal desktop turned into personal fabricator. Formerly, fab labs were intended as places and spaces where making (almost) everything [25] was possible, today we should change this point of view because, actually, they make technology and knowledge accessible to almost anybody, empowering people.

Fathoming the literature, we could try to draw a *trait d’union* with the theories of co-production and co-creation. Both concepts are defined often, but they’re important to comprehend the fab lab mechanism. To express what co-production/co-creation usually means, is the first step to have a snapshot of fab lab. Literature use both the words as synonymous, but Voorberg *et al.* [67], referring to social innovation, tried to identify a unique definition of the above quoted concepts. Voorberg and his colleagues analyzed their data collection, even if they found a common base in the collaborative creation of value, they underline three types of co-creation/co-production policies. In service oriented organizations, the participants, treated like partners are: co-implementers; co-designer; co-initiators. Thus, co-creation and co-production are strongly related. Their conclusion are really near to the concept that, looking both at companies and industry, actors/stakeholders work together in a value-creating system [47]. The idea of a “*reconfiguration of roles and relationship among this constellation of actors in order to mobilize the creation of value in new forms and new players*” [47, pg. 66] fits really good to the structure behind the fab labs. It redefines the logic of value creation and it goes beyond, embracing the traditional production logic. The complexity of the network into which fab labs are integrated, agreed with the state that value occurs in complex constellations.

The peculiarity of openness [16] and stakeholders integration in the value chain - now value constellation - of fab labs, are justified by the latest concept of crowdsourcing [31, 10, 34, 68, 69, 19, 20, 33, 11]. In order to understand this connections, we don’t have to intend crowdsourcing as a subset of outsourcing, but it’s a process, a call to participate, an open source development [22]. As wrote in the introduction, crowdsourcing evidently identifies a wide group of activities that, summarizing, are oriented to create value thanks to the voluntary participation of individuals to the value creation, supplying ventures with their knowledge, ideas, competences, in order to use the added value they’ve contributed to create, mainly through the web an internet [30, 31, 33, 19, 22]. Sometimes, the concept of crowdsourcing is strongly linked with the open source one. Brabham [10] criticizes the connection between crowdsourcing and open source. The last one is mainly referred to the software, and defines ways to allow the access

to the essential elements of a product. There are limits mostly related to the reward for contributors. Crowdsourcing overcomes this limits procuring an *“hybrid model that blends the transparent and democratizing elements of open source into a feasible model for doing profitable business, all facilitated through the web”* [10, pg. 82].

This point of view agrees with the findings about the adoption of idea generation throughout the broadcastings of problem information [40]: to overstep the firm bound accessing to the outsiders’ knowledge allows to include different perspectives and improve the effective solution rates.

This considerations could be extended to the generic manufacture industry or to the process of production: community is undeniable source of innovation that yield ideas’ success. It was already studied by Chesbrough and explained in “OPEN” [16], the author found the reason why open a business model is fair in the possibility to access to new resources, outside the bound of firms, to be up to create/acquire value in terms of innovation. Models create value taking advantage of the idea variety that exist beyond the gate of an enterprise.

In this context, fab labs are able to create space, both physical and virtual, where is possible to trade skills and capabilities, to re-conceptualize the framework into which producers and consumers interact; are part of a network where knowledge goes open. Usually, fab labs are strongly connected to the definition of a laboratory equipped with tools that allow people to make up their own “objects” (some talks about personal fabrication) supported by a pool of technician [46]. Micelli in his piece on Nòva24 [45] tried to go over this reducing definition, talking about a new way to call the production process in the strict sense into question, ready to set up the next industrial revolution. Anyway it’s currently difficult to hypothesize that fab labs could represent the end of automation process. More plausible is to believe that it’s the leading step for a change, maybe not so extreme as Cowen [17] suppose, but it is proved that the infrastructure of the network, created starting from the MIT, is the fuel for a new productive paradigm internet-powered, crowd-accelerated and crowd-designed to lead the birth of a new generation of innovation [23].

The core of this change seems to lie under the concept of presumption, literally a *portmanteau* of the two word of production and consumption, that synthesize the transformation of the consumers’ role [36]. The concept of presumption emerged from Toffler reflections [62] about Industrial and Post-Industrial Age: production and consumption have been separated during what he calls “the second wave”, better known as Industrial Revolution. Prosumption belongs to the first wave (agricultural revolution) and to the third wave (information age) because of the recognized dominant institution². According to Toffler, prosumption revives because of the demarketization and demassification process. This means a challenge for marketers to overcome a frustrating future. Kotler [36] argues that, even if Toffler’s studies on prosumption are not systematic and based on a miscellaneous of statistics anecdotes, his point of view is quite right: people are going to play a large role in designing or producing goods they want to consume. He uses to define them “homemakers” and finds the reason why they behave so in their joy to compose, as results by the observation of daily life. Moreover, Kotler seems to make a step beyond the Toffler’s consideration trying to return the marketers’ point of view. Producing for use makes people prosumers; instead, production for exchange splits production from consumption; then marketer should treat prosumers like a new market segment, helping them to meet their need to produce. It’s possible because market is a human invention and networks are changing their face.

To be true, Toffler didn’t consider the dominant role of key enabling technologies like internet whom gave the massive involvement of consumers in the “creation” of products [57].

In the latest years, we attended to the birth of a new definition of prosumers: the “makers”. Makers are the base of an independent capitalism (Nussbaum, 2011), localized and focused on social wealth, whom take advantages from the knowledge shared through networks and community. The makers create value through the application of process coming from the do-it-yourself culture, extracting it from the “community factor”. Using the digital fabrication [46, 25, 49, 44, 48, 18, 50, Walter-Hermann & Bueching, 2013, 45, 52], makers become hi-tech artisans able to create and prototype new products [46, 25, 44, 48, 45] Their habitat is represented by fab labs, where they could meet each other and share their own ideas. In conclusion, the whole review seems to draft a new manufacturing process that, based on small contributors in large number, draft a long tail model [3, 51, 52].

Methodology

The focus of this paper lies under the target to identify new way of knowledge transfers and networking process which introduce models that foster self production and entrepreneurship, especially centered on hi-tech handicraft and small enterprises creation. The lack of certain and various data, the peculiar newness of the analyzed phenomenon on the Italian

context, the explorative nature of the research, push the authors to choose a case study approach (Yin, 2009). Eisenhardt [21] explains that one or more cases are useful to develop theories about some specific topics. Because of the current framework, it could be useful to follow an inductive development of the theory that aim to recognize and describe the existence of a phenomenon [61]. Through a conceptual exercise and a conceptual question [60] “How open source tools, crowdsourcing and international fab lab network could affect on the italian small business tissue?”, authors start a case-based research, whom empirical evidence are collected by observation of participants (Burgess, 2002), studying a single case [21].

In the way to strengthen this assumption, looking at a single case takes the start for the attempt to research a meaning and give a sense to the observed phenomenon, in a local and contextual perspective [24, 12].

After the analysis of the prior state of theory and a literature review, that can be read above, and a recognition of the current digital fabrication approach in Italy, a case is investigated.

The Mediterranean Fab Lab, one of the international network bore in Boston’s MIT, located in Cava De’ Tirreni (SA), in the south of Italy, will be briefly illustrated in the following paragraph.

FabLabs: digital fabrication laboratories.

According with fabfoundation.org, Fab Lab is an extension of MIT’s Center for Bits and Atoms (CBA), a Boston housing project, that researches in digital fabrication and computation. A technical platform for innovation and invention, created to foster local entrepreneurship throughout the connection of technologist, researchers, innovators, educators, learners and makers, building a global network, into which knowledge is freely traded. It’s not easy to imagine a factory, flexible and customized, in a living room [49]. All along the years, the ideas of digital and personal fabrication were spread, even thanks to the Fab Chart that is the fab labs’ manifesto, and fab lab became effectively an international network. Nowadays there are about 333 fab labs in the world, whereof 214 in Europe and 33 in Italy (Fabfoundation.org, 2014). The idea of creating almost everything and the open access to knowledge and technology is well chased. In Ghana, an eight year old girl made a working circuit board; in Norway, a 14 year old boy crafted a robot car. The introduction of fab labs in South Africa helped to empower both individuals and rural communities. In that case it emerged that the access to the fab labs’ resources was, effectively, dependent on the possession of a school level by the users, indicating a limit of the statement: everybody can make almost everything. Anyway, the solution to this problem seems to lie under the implementation of educational program and workshop that spread the culture of making. In fact, it’s been envisaged a program to deploy “fab schools”. Another Norwegian experience was interesting too: established in strong connection with the MIT Fab Lab and the innovation cluster in Tromsø, the MIT FabLab Norway developed a project called “Electric Shepard” in the Slovik Farm, previously started by researchers from the University of Tromsø, Telenor Research and Development and Slovik farm itself. The project uses telecom equipment to track sheeps in the mountains and overcomes the problems caused by weather, morphology and difficult of communication. The establishment of Fab Lab in that country, near to the University and the above quoted Cluster, confirm the triple helix condition and opened a wide range of opportunity for companies, entrepreneurs and Academia.

More interesting is the Barcelona Institute for Advanced Architecture of Catalonia (IAAC) Fab Lab experience, where fab lab entered the infrastructural shift of the city toward the smart city philosophy. In Barcelona, fab lab started as usual to share content, knowledge and processes online, influencing the production process; then, it shared an educational program; nowadays they’re conceptualizing the fab city, contributing to educate the smart citizens. Barcelona Fab Lab has created a network in the network, that is a set of neighborhood fab labs, representing, today, the hinges of the civic structure.

In Italy, the making culture was launched by Massimo Banzi, founder of Arduino and Officine Arduino, the first Italian makerspace established in Turin - that was born in 2012 - where he fosters the creation of innovative business models and products/services, using a bottom-up approach. In about three years this movement grew up in a stunning way, and today we can count about 43 laboratories that embrace the fab lab approach, even if some of them are not yet.

In the south of Italy, the first one was the Mediterranean FabLab, located in Cava de’ Tirreni, Salerno, the case observed and studied in this paper.

Nowadays fab labs enlarged their field of action, moving from the research to the entrepreneurship, from biology to medicine, from food to agriculture, from architecture to robotics.

Case study: Mediterranean FabLab

“Think. Make. Share.”

As you can read in the previous paragraph, Mediterranean FabLab was the first of its kind in the South of Italy and the headquarter is in Cava de’ Tirreni. The idea to embrace both the makers movement and the fabrication laboratory approach was born after the maturation of the overseas experiences by Amleto Picerno Ceraso, the founder, and his partners. Since the year 2012, Mediterranean FabLab operates within the wider Mediterranean Academy of Architecture (medaarch)³, looking at a four dimensional world: small businesses, institution, university and “community”. The least common denominator between these four dimension is “contamination”, between knowledge, individuals, innovation and technology.

To be clear, the idea of a fab lab was born in 2009 after a study and work experience, conducted by the founder, at the IAAC’s FabLab. There, the Mediterranean FabLab’s founder got the importance of digital culture, makers movement, research and innovation to start a shift from the economic and production *status quo* towards the third industrial revolution, which basis lie under the mash up of knowledge transfer, co-working, digital fabrication and learning by doing.

The startup of Mediterranean Fab Lab, was characterized by educational and instructive programs in order to spread the making and DIY⁴ culture. It was definitely a bet, in fact they found difficult to assert their presence on the territory. Through these five years they grew up, purchasing facilities and spaces that granted them the qualification of fab lab. Since 2012 it is part of the MIT’s FabLab International Network, with:

- 3d printer;
- Vinyl Cutter;
- 3-axis milling;
- Polystyrene cutter;
- Milling;
- Arduino TinkerKit – School;
- 3d printer (extrusion of plastic material).

That puts the Mediterranean FabLab as an hub for creative process of digital fabrication, through participative innovation and co-ideation.

Getting over this observation, that don’t notice great differences with other fab labs, the breakthrough is the management team composition. While fab labs are usually populated by technicians, the observed one shows a multi-disciplinary and varied team made by architects, engineers, technology transfer and startup advisors, business and economics experts, marketing experts. Evidently, this is an advantage and represent the possibility to lead better the principal drivers of the activities lowered on the four dimension environment portrayed before.

The activity drivers, fundamentally, are: early and rapid prototyping, education, research and innovation, smart cities solution, mentorship and advisory.

Each dimension is bordered by the other and the drivers are pervading across them.

Small Businesses

In order to promote innovation and the constitution of competitive advantage for companies they work with, Mediterranean FabLab established educative paths and workshop directed to reduce the existing gap between enterprises and research.

During this action, the FabLab team, first evaluate the facilities owned by the company; second, they make an analysis of the production process, thus of the products and services; then, they elaborates a path *ad hoc*. In this way they are able to update the industrial process adopted by the company, educate workers and entrepreneurs towards a new way to perceive needs and think products, ease the adoption of innovation.

The FabLab team act to foster new solution of value creation through business model innovation [2] and product innovation. Thus, small business become lean and reactive to the market changes. Two are the leading examples, two different collaboration that turned into solid partnership.

In order to mix design, architecture, recycling, smart strategies and green economy, Mediterranean FabLab collaborated with Cartotecnica CRTS to re-think the use of corrugated paper. There was born a new furniture line,

modular and sectional. From that point they create a new shape that recall biologic structure and follow parametric modeling to re-configure the final form.

The second example, is the relationship that was born with Tekla, leader in the doors and windows industry. FabLab and Tekla worked together for the creation of smart surfaces and responsive object for the interior design, using digital fabrication techniques. Then, they recoup the CRTS parametric model to build a pavilion, in etalbond⁵ - with parametric modeling techniques and exploiting machineries already owned by Tekla - exposed at the last Rome Maker Fair. The pervading trait of the activity driver was expressed, first, by the involvement, in the educational paths, of people off the Tekla bound. Second, by launching a contest called “Don’t dream it, make it” that offers to designers and makers the opportunity to measure their capabilities across the creation of new products in corrugated paper.

This way to behave represent the capacity of the FabLab to link small businesses to community and vice versa, pushing businesses to open up their model and creating new opportunity for individuals. It means that to open up a business model entail that small businesses launch outwards their bounds a call for innovative solution, gathered by the FabLab. Thus, Mediterranean FabLab, make a match with enterprises and makers’ community, thanks to the education path structure.

Creators start to test their ideas and small businesses, first, open their model, then, unbundle their process accessing to external skills via outsourcing paths.

Institution

Performing research in the smart city field, following IAAC’s model, FabLab started a collaboration with the Municipality of Cava de’ Tirreni (SA) to adopt smart and green solution for the city organization.

Part of this collaboration, considered the possibility of re-convert abandoned industrial area to create open spaces and open labs. On the other hand, in order to foster self-employment and reassess traditional handicraft in an innovative way, FabLab and PA started an incubation project addressed to craftsmanship and whoever wanted to participate to the third industrial revolution and digital fabrication, encouraging the territory richness and reemergence of crafts.

Clearly, emerged the principal role of FabLab that had to open the doors to consumers, helping them to reduce the gap with the production, supplying knowledge and technology drawing from the international network and the open source resources. The bind between the dimension through the activity drivers seems to be clear.

University

With this actor, Mediterranean FabLab use to have a biunivocal relation, because Academia represent both a source of innovation and a customers who want to implement new way of knowledge transfer. In both meaning the output is the creation of opportunities. For students, they line a road towards the experimentation of their own ideas; for FabLab, to close the circle of education, to access to more facilities, to complete (or start) the mentorship and advisory activities; for University, to follow side by side the evolution of this hi-tech artisan stores and the next generation of manufactures. In fact, Mediterranean FabLab have recently activated a partnership with the Department of Business Studies and Research – Management & Information Technology (DISTRA-MIT) of the University of Studies of Salerno, to ease the technology transfer, among other things.

Community

As well as University, community represents a source and a target. As already mentioned before, fab labs ground their force on the network and its capacity to trade knowledge and skills. These knowledge and skills traded are open source for those individuals who want to start making and test their ideas. These artisan factory 2.0, making spaces, knowledge, technology and technical skills available, foster entrepreneurial intents and exploits the ideas potential. Mediterranean FabLab does the same implementing the presumption transformation, putting in contact the digital fabrication reality with a wide audience. Throughout education and workshop would spread the entrepreneurial culture: reducing the distance between project and product, via incremental innovation, using new

technologies, contribute to the economic relaunch. Moreover, community are source of revenue, because of Mediterranean FabLab is an Association with an associative fee.

This Italian based fab lab seems to show an organizational complexity, structured like a business as we know it, but highlight an evolutive approach based on the perception of local needs.

Data Collection and Analysis

In order to understand the rising phenomenon of the next generation manufacturing, the so-called new industrial revolution, we collected qualitative data and information about the above quoted case. First data were collected through the observation of the activities of the fab lab and their relationship with university and local businesses; then through many sources like articles, interviews, papers, special issues and website.

The first step was to discover the identity of this new kind of social businesses. Subsequently we investigate the network, its story, what kind of proximity is important and how proximity is significant. After that, technology and knowledge production and transfer were observed.

The first problem was embodied by the heterogeneity of activities and their aim. Fab Labs are integrated in an international network, but operate local with global information; the end users are various and difficult to recognize. Anyway, this problem seems to be overcome by understanding the evolution of the studied fab lab.

The second problem was represented by the dimension of knowledge transfer and its strong connection to the dimension of the network and customer segments, which embody small businesses as well. This problem obliged authors to study the collaboration with local firms and how it's been evolved into partnership.

The third problem is represented by the difficulty to relate startup business creation to social outcomes: inventing something, the self-employment and the pursuit of entrepreneurial intents are not enough.

Conclusion

By the observation and analysis of the Mediterranean FabLab, emerged a design based on the long tail model [3, 51]. Mediterranean FabLab, approaching to the market, sells small quantities of products and services to a large number of niche markets. The reason why FabLab adopt this business model is the diffusion of three economic triggers [3]: the democratization of tools of production; the democratization of distribution, thanks to Internet; the costs to connect supply and demand are reducing. Moreover, FabLab is part of the international Network of MIT FabLab, so knowledge and technology skills are freely traded and crowdsource.

These condition transform the Mediterranean FabLab business model in a hybrid model, joining the open business model design [15, 51] that we can call open long tail model. Almost everybody can make almost everything, everywhere.

Summarizing, the analysis outline a business model able to satisfy the needs expressed by many different users, designers and makers, in order to make them possible to create their own products; throughout the open long tail business model [3, 51, 52] Mediterranean FabLab contributes to the success of prosumption [62, 36]. Once again, the model satisfies open innovation [15] instances by connecting ideas and innovative project to people who own the knowledge to realize them.

With Abell's matrix [1], using the data and information collected, we could identify the strategic business areas of the Mediterranean FabLab. The Abell's matrix in Fig.1 highlights a wide volume of business, but even two missing link. In fact, because of both the dimension of the lab and the facilities owned, the Mediterranean FabLab seems to haven't already reached the segment of medium business. Locally, medium businesses, are just a few and operates in the agri-food industry, if FabLab would implement a research directed, for example, to the packaging innovation or the agricultural innovation, it will enlarge their strategic business area. It's undisputed that FabLab should improve its partnership with University in order to take advantage of academic knowledge and technologies.

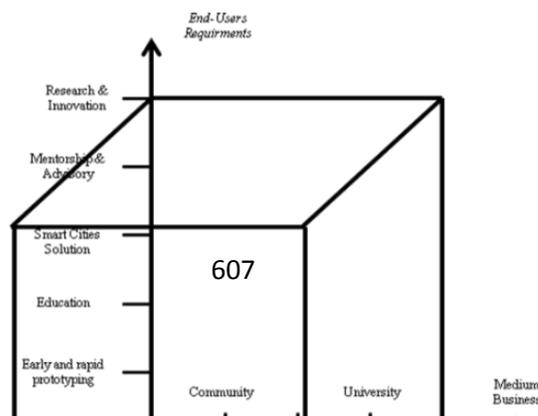


FIG. 1

Taking a step back to the observation of the model, we have to make two more considerations. FabLab, today, has a strong connection with the territory and the small businesses localized on it, through the bridging of community and businesses it fosters both the knowledge transfer and products innovation. It is possible thanks to the integration of individuals project in the enterprise throughout the education activities it conducts. The results are, first, a push to open up its partners' business model – it is even plausible that a further consequence is to adopt an unbundled business model [51], outsourcing the innovation research - that could test the advantage of an open strategic view at lowered cost; second, the creation of new business opportunity for “makers”.

The second consideration is linked to the concept of the fab lab itself: by making available spaces, facilities and collective intelligence to consumers, it spreads the making and entrepreneurial education, that is recently considered a priority target restart economy, as proved by both the last special issue of Journal of Small Business and Management, and the ICSB World Entrepreneurship Conference in Dublin.

To make it possible, proximity is the key. As we wrote before, both cognitive and social proximity [9] represent the base to create a trade of knowledge and competencies needed to create almost everything by almost everybody. Anyway, the whole model can't disregard the geographical proximity. In one hand, geographical proximity allow to clearly highlights the current social needs to satisfy and, evidently, to identify the hubs to connect each other and to integrate in the network. In fact, involving craftsmen and institutions is a way to realize the well known statement “*Think Global, Act Local*”.

This framework underline a bottom-up process that aim to transform the manufacturing into a new generation that mixes creativity, technological opportunity, innovation, making culture and territory richness. Maybe this is not the only scenario that could be considered, in fact the activity of Mediterranean FabLab highlights an interest to recoup of old manufactures that, throughout the access to collective intelligence and new technologies, could innovate both their production process and business model.

Although, the discussion seems to lead to the idea that digital culture and democratization of production represent the fuel for new venture creation and startup acceleration, focused on product and devices which benefits affects the whole society.

The collaboration with institution to implement smart cities solution and the incubation of hi-tech handicraft start-up, instead, are source of social innovation that is, by definition, as a collective creative process shared by a plurality of actors, which positive effects hits the entire society [41].

It's unveiled a question: what would it be of traditional production? The next generation are fascinating for sure, and could fill the gap existing in the market today, but the shoulder are not large enough to cause old industrial concept distress. A collaboration is more fair and probable.

Unfortunately, this case study research present some limits. The data and information weren't enough to perceive quantitatively a wider context. Open source and crowdsourcing model of Mediterranean FabLab should be tested in a more extensive manner. The test should comprehends both businesses and customers. Research, thus, have to turn from a qualitative view to a quantitative one, or both. If social benefits are conceptually identified, there's a lack of quantitative data; moreover, the observed benefits should be compared with the costs.

This is a future research target, as well as the idea to measure the customer satisfaction and the business competitive indexes.

References

- [1] Abell, D. F. (1980). *Defining the business: The starting point of strategic planning* (pp. 88-89). Englewood Cliffs, NJ: Prentice-Hall.
- [2] Amit, R., Zott, C. (2012). Creating value through business model innovation. *MIT Sloan Management Review*, vol. 53, No.3, Strategy in changing markets: the new business model, pp. 41-49.
- [3] Anderson, C. (2006). *The long tail: Why the future of business is selling less of more*. Hachette Digital, Inc..
- [4] Ashton, Kevin (22 June 2009). That 'Internet of Things' Thing, in the real world things matter more than ideas. *RFID Journal*.
- [5] Becker, M. C., & Knudsen, T. (2002). Schumpeter 1911: Farsighted visions on economic development. *American Journal of Economics and Sociology*, 61(2), 387-403.
- [6] Berman, B. (2012). *3-D printing: The new industrial revolution*, Business Horizons, Volume 55, Issue 2, March–April 2012, Pages 155–162.
- [7] Beyers, R. N. (2010). Nurturing creativity and innovation through FabKids: A case study. *Journal of Science Education and Technology*, 19(5), 447-455.
- [8] Bordieu P. (1985). *The forms of capital*, in J. G. Richardson Ed., *Handbook of theory and research for the sociology of education*, Greenwood Press, New York, pp. 241-258.
- [9] Boschma, R. (2005). Proximity and innovation: a critical assessment. *Regional studies*, 39(1), 61-74.
- [10] Brabham, D. C. (2008). Crowdsourcing as a Model for Problem Solving: An Introduction and Cases, *Convergence: The International Journal of Research into New Media Technologies* 14(1) 75-90.
- [11] Brabham D. C., (2012). Crowdsourcing: A model for leveraging online communities. In: A. Delwiche & J. Henderson (Eds.), *The Routledge Handbook of Participatory Culture* (in press).

Note: Contact the authors for the full list of references.

End Notes

*Antonio Botti is researcher at DISTRA-MIT of Università degli Studi di Salerno.

**Ezio Marinato is Ph.D. student at DISTRA-MIT of Università degli Studi di Salerno

¹ A subcultural movement linked to the birth of hackerspace, the open source movement, bottom-up innovation process and 3D printing. Is the new horizon of do-it-yourself (DIY).

² Toffler distinguishes between three historical stages called waves: in the first wave, agriculture is the dominant institution; in the second wave, factory became dominant; finally, in the third wave, the information age, technology turn the home or electric cottage into the dominant institution.

³ Medaarch is an education and research center in advanced architecture (<http://www.medaarch.com/academy/>).

⁴ Do-It-Yourslef.

⁵ They are aluminum composite panels with a sandwich structure.

Innovation as competitiveness factor in Guadalajara's SMEs manufacturing Industry

Cinthya Karina Camacho-Sotelo, cinthya_camacho09@hotmail.com

Jose Sanchez-Gutierrez, jsanchez@cucea.udg.mx, jsanchez0202@hotmail.com

Paola Irene Mayorga-Salamanca, mayorga.paola20@gmail.com

Marketing & International Business Department, University of Guadalajara, Mexico

Innovation as competitiveness factor in Guadalajara's SMEs manufacturing Industry

Abstract

The purpose of this research is to get to know the importance that innovation has in the competitiveness of the SME in Guadalajara. The method used for this job is the usage of structural equations to correlate innovation and competitiveness. In this way we are able to find out how important is innovation in the Guadalajara's SMEs. With the support of this method we found out what are the most significant factors, also which ones are most likely to be used for the SMEs sector in order to have better competitiveness.

Introduction

Innovation is nowadays considered by the SMEs as a strategy of making having a better job done by every single companies department. This is not only for company survival but is also seen as a way to strengthen the company's foundations, (Castellanos, 2003).

Companies understand that this new marketing dynamic where the companies have to completely understand what the customer wants; also it has to have the capability of adapting to their customer needs (Lafuente & Bassa, 2011). Thus is achieved by adapting to new business processes, developing and revamping their products in short continuously evolving and meeting the expectations from their customers. There are precedents where companies had work hand to hand with their providers to develop innovation projects that as a result left better techniques of developing products and services. (Nordberg, Campbell & Verbeke, 2003).

Innovation and competitiveness

The research of this factors competitiveness and innovation is not something new; they have been studied since the 1960's. Authors like Porter determined that the competitiveness of a nation was determined by the capability of innovate and improve (Aguada, Navarro & Meza, 2013).

One of the first authors that began talking about innovation was Schumpeter cited by (García, Serrano & Blasco, 2005) developed the theory of innovation as the means to explain the economic development and analyzing the technology change. He basically found the difference between invention and innovation. Invention is the creation of new things and innovation being the application of the invention of new products or processes of production and its application on commercial uses.

In 1991 the OCDE considered that the technologic innovation was only for the companies in the manufacturing sector and that it was focused only on products and technical processes. Later in 2005 the OCDE widen the concept of innovation to the service industries because that economic activity gives higher economic output and better profits in those industries.

Innovation does not only limit to the radical changes in the products it also has expanded to different company areas. Many authors agree that the term innovation takes in changes in productivity methods, supply, distribution and workforce capabilities (CE, 2003), as well as services and consumer satisfaction (Valls Pasola, Guitart. & Núñez 2007), making a change in the methodology and technology; a useful deviation on how things were done before (Bateman & Snell, 2009).

Therefore innovation can be considered as a necessary ingredient to have a better competitive advantage (Darroch & McNaughton, 2002); due to innovation (Damanpour & Gopalakrishnan, 2001), cited by Naranjo, Jiménez & Sanz, 2012 generated competitive advantages in for the enterprises. Enterprises become more flexible and are able to adapt faster to any given changes. Also they are able to exploit opportunities better than their competitors, thus getting positive effects for the enterprises making them more profitable (Prajogo, 2006; Berson, Oreg & Dvir, 2008), cited by Prajogo, (2006).

Then the technology factor along with the ability of innovation are a source of a great competitive advantage (Galende & Suárez, 1999). Nowadays companies that want to generate and acquire the latest technological advancements to better their productivity and have a higher competitiveness rate.

If the companies want to keep being competitive have to get more technological capabilities and introduce innovation in processes and products that allow them to raise the productivity and their distinction from their competitors (García, Serrano & Blasco, 2005).

Additionally when competitiveness is given by free market conditions in a given country it could produce goods and services that can exceed international standards; as well it allows maintaining the growth of the local GDP (OCDE, 2010.)

Some of the indicators that measure competitiveness are performance. Performance shows the results of different companies obtained by the competitive process and its competitive potential. Sales and exports show the growth of the participation on the market as well as profitability and some others, (Pérez & Velásquez, 2013.)

Then, that companies innovation have a great development for them and generates benefits in the sector that is being developed. It generates competitiveness between companies of the same kind generating a chain of knowledge and improvement for the companies in the same sector.

Research Method

For the analysis of the data of this research we used the method of differential equations which allows giving the type and direction of relations contained in the analysis so we can estimate the parameters specified by the relationships in a theoretical level. Structural equations are confirmatory models due to the fundamental interest is to confirm thru the analysis of the sample of the relations given by the explicatory theory that is chosen to use as a reference (Ruiz & San Martin, 2010).

Sample

In order to analyze the variables of innovation and competitiveness we applied 409 well-structured surveys to the object of study which in this case were the SME sector of Guadalajara.

Results

The method that was used is estimation ML-robust which throws very robust statistical data that allow us to verify that the theoretical model is correct which includes the scaling correction χ^2 Santorra-Bentler and corrects the possible errors according to the normality. What was mentioned before it is possible because the data comes out from surveys that contain Likert scale, which can present problems of normal distribution due to the variables which are not continuous (Alvarado, Sadín, Valdez, González & Rivera, 2012.)

After that, the model was adjusted considering as a guide the set of non-normal fit index, (Brown, 2006.) Which are NFI, NNFI and CFI, the values for those have to be between 0.80 and 0.89 and they represent a reasonable fit, (Segars & Grover, 1993.) On the following Chart 1, show that all the values go over what it's acceptable getting an NFI of .862 and NNFI of 0.845 finally a CFI of 0.861. With this data, it's corroborating that the model is acceptable. On the other hand Jöreskog y Sörbom (1986,) state that the value of RMSEA has to be under 0.80 to be acceptable but in this case the RMSEA value is 0.60 which indicates that the model is correct.

Related to the factorial loads Bagozzi and Yi, (1988,) they state that the factorial loads have to be above 0.60, and in the table 1 shown that all the factorial loads of this particular model are above this value.

The value for the reliability index IFC and the index of extracted variable IEV they should be above 0.70 and 0.5 respectively, Fornell and Larcker (1981), which is easily achieved in the theoretical model.

All the indexes and values previously mentioned achieve the previously established by the theoretical, which allows us to state that the theoretical model is correct for application of structural equations is shown by the table below.

TABLE 1: INTERNAL CONSISTENCY AND CONVERGENT VALIDITY OF THE THEORETICAL MODEL

Variable	Indicator	Factor Loading	Robust t-value	Cronbach's Alpha	CRI	VEI
Implementacion of changes	AIC1	0.644***	1.000*	0.872	0.872	0.51
	AIC2	0.711***	15.116			
	AIC3	0.752***	13.808			

	AIC4	0.682***	11.643			
	AIC5	0.674***	11.311			
	AIC6	0.736***	13.278			
	AIC7	0.716***	12.652			
Barriers innovation to	AIB7	0.636***	14.417	0.839	0.839	0.501
	AIB8	0.697***	16.499			
	AIB9	0.746***	16.858			
	AIB10	0.705***	15.789			
	AIB11	0.664***	14.697			
	AIB14	0.584***	28.863			
	AIB16	0.528***	12.758			
Financial Performance	FP1	0.753***	1.000*	0.833	0.833	0.505
	FP2	0.772***	13.859			
	FP3	0.715***	10.413			
	FP4	0.738***	11.672			
Costs Reduction	PC2	0.573***	9.82	0.76	0.762	0.5
	PC3	0.776***	16.971			
	PC4	0.741***	16.218			
	PC5	0.566***	10.634			
Technology Use	TE1	0.673***	1.000*	0.848	0.849	0.508
	TE2	0.761***	14.92			
	TE3	0.721***	14.515			
	TE4	0.724***	14.305			
	TE5	0.618***	11.182			
	TE6	0.670***	12.673			
S-BX ² (df = 503) = 1235.7893 (p < 0.0000); NFI = .862 ; NNFI = .845 CFI = .861 ; RMSEA = .060						

Source: Own elaboration

* = Parameter constrained to this value in the identification process

*** = p < 0.001

The table 2 shows the validity of the theoretical model by values like IEV and it is shown diagonally from left to right and top to bottom, those values were previously mentioned, which has to have values above 0.50. Above the diagonal IEV we have the variance and then underneath the IEV we have the confidence coefficient, which we can appreciate an interval of 90% of confidence. Also we can see that none of the individual latent factors from the correlation matrix has the value of 1.0 which indicates the inferior and superior limits (Anderson & Gerbing, 1988).

TABLE 2: DISCRIMINANT VALIDITY OF THE MEASUREMENT OF THE THEORETICAL MODEL

Variables	Implementacion of changes	Barriers to innovation	Financial Performance	Costs Reduction	Technology Use
Implementacion of changes	0.51	-0.089	0.231	0.214	0.472

Barriers to innovation	-0.181 , 0.003	0.501	-0.051	0.063	-0.105
Financial Performance	0.139 , 0.323	-0.149 , 0.047	0.555	0.084	0.356
Costs Reduction	0.142 , 0.286	-0.019 , 0.145	0.01 , 0.158	0.505	0.208
Technology Use	0.346 , 0.598	-0.105 , -0.105	0.244 , 0.468	0.128 , 0.288	0.5

Source: Own elaboration

The Chart 3 indicates the result of the hypothesis from this investigation for this particular case we achieved 3 different hypothesis.

H1: The standardized coefficient is 0.531, with this data we can show that when they are changes done in companies it generates more innovation.

H2: The standardized coefficient is 0.616 were the effects of having fewer barriers of innovations it's conducive to generate more innovation

H3: The standardized coefficient is 0.420 this means that innovation affects in a positive manner competitiveness.

TABLE 3: SEM RESULTS OF THE THEORETICAL MODEL

Hypothesis	Structural relationship	Standardized coefficient	Robust t-value	Measure of FIT
H1: To a higher implementacion of changes, a higher innovation	Implementacion of changes → Innovation	0.531***	12.968	$S-BX^2_{(491)}=1206.3072$ p = 0.000
H2: To a lower barriers to innovation, a higher innovation.	Barriers to Innovation → Innovation	0.616***	17.125	NFI = 0.866 NNFI=0.845
H3: To a higher innovation, a higher competitiveness	Innovation → Competitiveness	0.420***	13.098	CFI = 0.864 RMSEA = 0.060

Source: Own elaboration

*** = p < 0.001

The conclusion that the 3 hypothesis have significant values for the theoretical model. Hypothesis number 2 we obtained a standardized coefficient of 0.616 which indicates that the factor of fewer barriers of innovation helps companies to be more innovative and this weight more in the investigation. When the standardized coefficient was 0.420 indicates that innovation affects the competitiveness of manufacturing companies, even thought it was the lowest standard it does not necessarily mean that it is something negative it just allow us to make a differentiating point between all the hypothesis.

Conclusions

Upon checking all the literature with this work we can conclude that innovation is all those gradual or radical changes in their products, means of production and commerce. And these changes can be applied in any type of industry, next it allows industries to be in a better competitive position. Mexico is one of the countries that is far behind in competitiveness technology.

There are many different concepts for competitiveness and also many indicators that measure whether a company, industry or country is competitive. But there is no universal fully accepted indicator by all authors. The most respected indicators can be determined by international institutions like WEF, in the reports that are published on a yearly basis Mexico has not performed not that well just being in the middle spots.

Thanks to the analysis of the statistical data of the SMEs in the manufacturing sector of Guadalajara, we can conclude that innovation does affect the competitiveness of the manufacturing sector in a positive

manner. The mentioned before shows a very competitive and positive correlation in the statistical analysis due that its factors are quite representative. It also shows that when there were any representative changes on implementation of changes inside of a company it generated many improvements in different areas of the companies. Then the barriers of innovation on the SMEs for the manufacturing sector of Guadalajara are very high that is why it is difficult for companies to innovate it is really hard to get financing and there is also innovation resistance inside of companies

At the end the manufacturing sector of Guadalajara is showing some level of innovation development and this allows us to get a diagnostic of market competitiveness. It allows us to see the strength and weaknesses of the manufacturing sector, once these are fixed and revamped it will allow the manufacturing sector to pay more attention to other deficiencies.

References

- [1] Aguado, E. E, Machado, N.V & Meza, L. J. E. (2013). *Innovación para fomentar la competitividad en las pymes*. Guadalajara:Universidad de Guadalajara.
- [2] Alvarado, B. G., Sandín B.J L., Valdez, M.N., González, A. & Rivera, S. (2012). Análisis factorial confirmatorio del Cuestionario SA-45 en una muestra mexicana. *Anales de Psicología*, 28(2), 426-433.
- [3] Anderson, J. & Gerbing, D. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 13, 411-423.
- [4] Bagozzi, R. P. & Yi, Y. (1998). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- [5] Bateman, T.S. & Scott, A. S. (2009). *Administración: Liderazgo y colaboración en un mundo competitivo*. México: Mc Graw Hill.
- [6] Castellanos, C. & Castellanos M. (2010). Concepciones teóricas referentes a la definición de la competitividad. *Contribuciones a la Economía*. Recuperado de: <http://www.eumed.net/ce/2010a/>
- [7] Comisión Europea, (2003). 112, *Innovation policy: updating the union's approach in the context of the Lisbon strategy*. Bruselas: comisión europea.
- [8] Darroch J., & McNaughton R. (2002). Examining the link between knowledge management practices and types of innovation. *Journal of Intellectual Capital*, 3(3), 210 – 222.
- [9] Fornell, C. & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement Error. *Journal of Marketing Research*, 18, 39-50. [10] Galende, J. & Suárez, I. (1999). A resource-based analysis of the factors determining a firm's R&D activities. *Research Policy*, 28, 891-905.
- [11] García, E.J., Serrano, C.V. & Blasco Blasco, O.M. (2005). ¿Competitividad e innovación en la micro y pequeña empresa? Retos previos a superar. *Estudios de economía aplicada*, 23 (3), 559-581.
- [12] Jöreskog, K.G. & Sörbom, D..(1986). *LISREL VI: Analysis of Linear Structural Relationships by Maximum Likelihood, Instrumental Variables and Square Methods*. Mooresville: Scientific Software.
- [13] Lafuente, G., A. & Bassa, L. (2011). La innovación centrada en el cliente utilizando el modelo de inferencias en una estrategia CRM. *Investigaciones europeas de dirección y economía de la empresa*, 17(2), 15-32.
- [14] Naranjo, V.J.C., Jiménez, J.D & Sanz, V.R. (2012). ¿Es la cultura organizativa una determinante de la innovación en la empresa?. *Cuadernos de Economía y Dirección de la Empresa*. 15(2), 63-72.
- [15] Nordberg, M., Campbell a., & Verbeke A. (2003). Using customer relationships to acquire technological innovation. A value-chain analysis of supplier contracts with scientific research institutions. *Journal of Business Research*, 56, 711-719.

*Note: Contact the authors for the full list of references.

Regional Context and Academic Spin-offs: Effective or Critic Cooperation?¹

Christian Corsi, ccorsi@unite.it, University of Teramo, Italy

Daniela Di Berardino, daniela.diberardino@unich.it, University of Chieti, Italy

Antonio Prencipe, aprencipe@unite.it, University of Chieti-University of Teramo, Italy

Regional Context and Academic Spin-offs: Effective or Critic Cooperation?

Abstract

Several studies have point out the importance of the infrastructural support offered by business incubators to stimulate high-tech entrepreneurship, like academic spin-offs (ASO). Other studies connect the effectiveness of this entrepreneurial action with local characteristics and proximity between incubators, universities and ASO. The paper goals are to investigate the role played by the geographical proximity of business incubators and to analyze the characteristics of the socio-economic context that influence the development of ASO. Using a sample of 405 ASO and 162 incubators we show that the presence of incubators in the geographical area of ASO alone is not enough for them to reach better performance. This aspect is well-improved by participation of financial institutions in the business incubators, which increase the financial stability of ASO. Furthermore, the results indicates that the local context features have a positive effect on the ASO performance, underlings the role played by regional settings.

1. Introduction

During the last two decades literature have shown a growing interest in the promotion of stakeholders capable of acting as facilitators in the process leading to the creation of innovative firms, as well as in their roles as privileged intermediaries in building relationships and exchanging networks between start-ups and more mature firms (Cesaroni and Gambardella, 1999; Colombo and Delmastro, 2002; Link and Scott, 2007). Though the features and functions of these intermediaries are well known, any research (Jaffe1989; Colombo and Delmastro, 2002; Squicciarini, 2009) exploring the effectiveness of stakeholders have taken different perspectives thus preventing the development of a systemic view on the phenomenon. Some scholars (Phan et al., 2005) identify several research lines on the subject depending on the level of analysis chosen, ranging from the performance of incubated firms (Ferguson and Olofsson, 2004) to the facilitators' services (Rothaermel and Thursby, 2005; Bigliardi et al., 2006), from the impact on the territory (Scilitoe and Chakrabarti, 2010; Lindelöf and Löfsten, 2003) to the competences of incubated entrepreneurs (Almus and Nerlinger, 1999).

However, there is little research which focuses on the impact stakeholders have on academic spin-offs (Olofsson and Wahlbin, 1993), a specific type of new technology venture (NTV) involving stakeholders and resources of both public and private nature and which are given the ambitious function of promoting local development by national research policies. The combination of academic spin-offs (ASO) and business facilitators should highlight the impact on innovation and economic growth both on the affected territory and the firms related to those entities. However, the trend of development, in literature, is not yet clear, that is if it depends primarily on the presence of facilitators – which are intended to support the rise and the development of local enterprises – and by the presence of performing and innovative firms in the local area or if it could be socio-economic factors of the territory to affect the growth of companies located therein and to enhance the business activity of the aforementioned facilitators. The regional economy may benefit from the growth of NTV (Pattorn and Kenney, 2010) but also may contribute to the knowledge transfer between producers and users of technology and so to the generation of specialized cluster. Therefore, the territory emerges as the best level of analysis for a systemic view of the phenomenon, for it takes all the socio-economic stakeholders into consideration. In this respect, research aims at analyzing the relationship between the development of the context and the performance of ASO located in it, in order to understand whether the former acts as a promoter or a receiver of growth. Specifically, among the characteristics of context, the role played by business facilitators regarding the performance of ASO will also be considered. To this purpose, our research is based on a sample of 405 Italian ASO surveyed by Netval and university websites, and of 162 incubators, broadly understood, recorded on the 31st of December 2013 and located in 18 regions, in relation to which some ISTAT territorial indicators have been extracted, according to important characteristics of the local productive and innovative system.

2. The role of business facilitators

Among business facilitators, literature conventionally enumerates technology and science parks and innovation poles (O'Shea et al. 2005; Link and Scott 2007; Wright et al., 2007), where incubators are identified (Mian, 1996) as entities specifically devoted to the creation of new businesses and their support in several forms. Businesses are also supported, above all in the relations and exchanges between socio-economic operators in a specific area, by technology districts, that often evolve or merge into innovation poles thus making their identification difficult. Generally, literature identifies four categories of incubators (Mian, 1996; Grimaldi and Grandi, 2005): university incubators and innovation poles, sometimes seen as regional incubators (von Zedtwitz, 2003; Hackett and Dilts, 2004), with a public nature and a non-profit focus; independent, private incubators and private business incubators, both profit-oriented. The distinction between these categories can be observed especially in the type of services offered to new firms, in the nature of their revenues and in the strategies employed by their management teams (Grimaldi and Grandi, 2005). The services usually provided concern the following elements: access to supply, capital and goods markets; support in administrative activities related to the start-up phase; formation of human capital; access to relationship networks with stakeholders critical to business processes (Hansen et al., 2000; von Zedtwitz and Grimaldi, 2006). The main advantage that literature assigns to those entities is given by cost and time reductions to start up a new venture and the added value of transferred competences, outcomes that will favor an increased survival rate of NTVs on the market and their faster growth. However, there are few confirmations of the effectiveness of this business action, especially in the long time (Ferguson and Olofsson, 2004; Squicciarini, 2009), where the effectiveness is to be understood in terms of creating performing firms that are capable of giving their contribution to the socio-economic development of the area where they operate. About the incubators, many studies estimate their effectiveness in relation to the survival and development rates of incubated NTVs; yet, some researches demonstrate that even the advantages gained against other non-incubated start-ups seem to disappear as time passes when they leave the incubator (Ferguson and Olofsson, 2004). Whereas other studies show inconsistent results on an incubator's ability to create firms that can survive on the market for a longer period (Schwartz, 2013), and underline that the characteristic of contexts are important to explain this result. Similarly, some studies demonstrate that the survival of incubated start-ups does not necessarily imply their development (Oloffson and Wahlbin, 1993), thus inviting to choose other measures to evaluate the effectiveness of incubators in their territory (Bigliardi et al., 2006). Other researches on the subject investigate the characteristics of successful incubators (MacMillan et al., 1987; Bellini and Piccaluga, 2000; von Zedtwitz and Grimaldi, 2006; Grandi and Grimaldi, 2005) and technology and science parks (Link and Scott, 2007; Wessner, 2009), by connecting them to the features of management teams, the strategies employed, the goals pursued and the resources owned. Different studies correlate the performance of incubators to the growth in employment and development at local level (Aerts et al., 2007), the investments in R&D (Siegel et al., 2003), the new ventures created (Ratinho and Henriques, 2010). In this case, the territory is chosen as an observational unity to study the effectiveness of incubators, although it is worthwhile noting that the success of incubated NTVs should be fully appreciated even outside the contexts where they are located, especially if they are able to build relations on the international level. Yet, few studies analyze the impact of incubators in converging countries or not developed economies (Marques et al., 2006; Sofouli and Vonortas, 2007). Further studies investigate the effectiveness of incubators from a comparative point of view, by comparing the performances of incubated firms to those of non-incubated ones that are in their geographical proximity (Westhead and Storey, 1994; Squicciarini, 2009). Performance measure is understood in several ways and carried out considering the following parameters: the ability of NTVs to create innovation, as resulting from the patenting activity (Squicciarini, 2009); the development of NTVs, measured by the added value and the growth rate of investments (Salvador, 2011) or by employment and profit margin rates (Lindelöf and Löfsten, 2003; Aerts et al., 2007) or by the growth rate of sales, ROA and ROE (Bigliardi et al., 2006); the ability of NTVs to reach management effectiveness of various types according to the services provided by incubators (McAdam and McAdam, 2008); the ability of NTVs to improve their positions on supply markets, as measured by their creditworthiness and trading capacity (Colombo et al., 2002). From a NTV perspective, the effectiveness of incubators is related to the specific features of NTVs, in particular to their ability to absorb the knowledge transferred by incubators through the exploitation of the patents

owned by the latter (Rothaermel and Thursby, 2005), as well as to the age of firms and the field they belong to (Monck et al., 1988).

To evaluate the effectiveness of their actions, it is important – especially in the case of public or mixed incubators – to highlight their ability to contribute to the development of a robust and innovative business background, in order to assess the suitability of public investments in this direction. Specifically, the current literature does not allow to clearly establish whether development begins from the actions undertaken by incubators toward the creation of performing firms that promote the socio-economic growth of the territory where these operators act or where the survival and growth of firms is fuelled by the characteristics of the territory (Ratinho and Henriques, 2010). Thus, it can be speculated that the development of NTVs is not geographically neutral: the geographical proximity to incubators may positively influence the performance of NTVs (Hp1).

A further issue to be considered is the different nature of the subjects involved in incubators that can have an influence on the several directions of development. While the presence of universities can increase the chances of transferring innovative knowledge into contexts with slow technological development (Colombo et al., 2010; Muscio, 2010), the participation of financial institutes and venture capitalists could improve the creditworthiness of NTVs, as well as the proximity to other mature firms, which could promote an easier access to the end markets. Based on these considerations, and focusing exclusively on the critical role that financial dimension plays, above all for the NTVs represented by academic spin-offs (ASO), it can be postulated that the presence of financial stakeholders, in the shareholding structures of incubators, allows to incubated firms to reach better financial structures (Hp2).

3. The role of territorial context in the development of university spin-offs

Academic spin-offs (ASO) play a significant role in the development of a region as they contribute to technological dissemination and, consequently, identify value-creating networks (Sternberg, 2014). The knowledge arising from a spin-off can be conveyed both locally (within the same region where the reference university is located) and long distance (Boschma, 2005). The regional context of a company start-up greatly affects start-up success. Indeed, its importance is higher than being granted any government funding (Sternberg, 2014). Actually, government funding granted to innovative companies does not necessarily ensure achieving better results. A few empirical studies (Saxenian, 1994; Wagner and Sternberg, 2005; Fritsch and Mueller, 2007) show that “the regional setting can affect individual entrepreneurial behavior”, in as much as Sternberg and Roch (2007) state that, within the same country, regional contexts can be so different from one another that significant differences also arise in the relevant entrepreneurial activities. On these grounds, several authors agree with the following assumption made by (Feldman, 2001; Sternberg, 2014): “entrepreneurship is mainly a regional occurrence”. In this regard, there is ample evidence in literature (Carlton, 1983; Bartik, 1985; Fritsch, 1997; Reynolds et al. 1994; Audretsch and Fritsch, 1994) linking new company start-up activities to specific regional characteristics and traits (Audretsch and Lehmann, 2005). There are various general environmental factors (Looy, Debackere and Andries, 2003) that allow setting off innovative start-ups, which successfully develop in a given region, such as: 1) a critical mass of specific skills and research; 2) a close connection between public higher-education institutions, learning and technological output (Blind and Grupp, 1999); 3) an enhanced “entrepreneurial” direction in research centers – including universities – which more positively affects the development of a region with a view to its innovation performance (Porter, 1995); 4) the presence of developed financial markets, especially venture capitalist and business angel ones (Looy, Debackere and Andries, 2003). Furthermore, a study on biotechnological industry in the US performed by Deeds et al. (1997) shows that the “geographical concentration” of businesses in the same sector does not only lead to competitive challenge but also greater cooperation among businesses (Stuart, 1998; Looy, Debackere and Andries, 2003). However, given the importance of both local and global business activities for new high-tech companies, an internationalization strategy is only effective if the local/regional settings offer enough opportunities to create a critical mass of both technologically- and market-oriented skills (Debackere, 1998, 2000).

In order to consider a given region as a true activator of highly performing businesses (Hp3), based on GNP, employment, competitiveness, it is necessary to remove all the restraining factors, especially, as Lehrer (2000) put it: on a national level, the absence of developed capital markets; on a regional level, evident lack of the facilities and

instruments required to create and support high-tech networks; on an individual level, a risk-averse ambience and lack of entrepreneurship, supported by a public university education system which does not stimulate entrepreneurship (Looy, Debackere and Andries, 2003). It must be noted that the presence of universities in the territory may be decisive in shaping the social and economic development of a region (Pazos et al, 2012). Several authors (Slaughter and Leslie, 1997; Shane, 2004) point out that various “entrepreneurial universities” are actively committed towards the growth of their region through the commercialization of research, spin-offs of new enterprises as well as cooperation with economic development bodies (Youtie and Shapira, 2008). Luger and Goldstein (1997) also suggested that universities may have a multidimensional impact on the relevant regional economies through research and creation of knowledge, education and training of human resources, dissemination of know-how to improve the existing industry, technological innovation for commercialization, spin-off technology, infrastructure development, information flow improvement and leadership in order to deal with regional issues, the creation of a favorable regional setting. As a consequence, the role of university in certain contexts (Youtie and Shapira, 2008) developed from common research and education functions in order to become a knowledge hub by promoting innovation. University operates as a “knowledge hub” when seeking to spur endogenous development, new abilities and innovation, especially within the relevant region (Shapira and Youtie, 2004; Newlands, 2003). Furthermore, literature (Nelson, 1959; Arrow, 1962; Fujita and Thisse, 1996; Fischer and Varga, 2003) has long recognized that knowledge-based and technology-intensive enterprises draw advantages from their location close to a university site, thanks to the knowledge spill-over created by basic research and the creation of human capital (Audretsch and Lehman, 2005; Bathelt, Kogler and Munro, 2010).

4. Research method

Sample and data collection

In order to validate the above-mentioned research assumptions, the level of analysis selected for the research is, thus, the regional area, which they are lead back the two observatories actors: business incubators and academic spin-offs (ASO). For the ASO, primary data were extracted from NETVAL database (www.netval.it) and universities websites as of 31 December 2013; from the 747 companies identified were excluded inactive spin-offs (34), those being liquidated and cancelled (193) and those for which no financial statements comparable data were available (115). Thus, we assed a sample of 405 active Italian companies, equal to 54.21% of the population identified, divided into geographical macro-area clusters (North - Central - South) and relevant administrative region. Secondary data collection was performed on the grounds of several sources and essentially consisted in the assessment of financial statements and historical corporate files (Infocamere, AidaBvdep). Second, information concerning development indexes of the regional economic context were collected by drawing the data from the records contained in the Italian National Institute of Statistics (ISTAT). Finally, additional information regarding 167 national business incubators were gathered from institutionally websites of universities, of MIUR (Ministry of Education, University and Research), of the regional authorities and business incubators.

Variable definition and measurement

The empirical study of the features of the local socio-economic context affecting academic spin-offs as well as the modes and strength of certain intermediate entities facilitating spin-out processes, together with the economic impact whereby spin-off enterprises affect their reference context, was performed through Pearson’s multivariate analysis by means of two variable sets. As far as the former set is concerned, variables were structured as macro level analysis and aim at measuring the degree of socio-economic development and entrepreneurial support mechanism on a regional level. The first set of these variables – defined as context variables – consists in a set of indicators divided into four basic groups, drawn from the ISTAT database, measuring company competitiveness degree in the local context, corporate demographics, the various aspects concerning capital markets and corporate finance and, finally, industrial innovation and research dynamism. As far as the first set is concerned, it includes three variables, namely, capital accumulation intensity (%Acc_capital) as a percentage of gross fixed investment out of GDP percentage, company service development capacity (%Busserv) as a percentage of work units in the company service sector out of total AWUs of retail services and, finally, industrial added value (Ind_VA) which expressed production and distribution capital gain at chained industry prices in million Euros. Corporate demographics was measured via two variables –

the former expressing the gross registration rate in the Company Register (%Buss_gross_enrol) and the latter expressing the net registration rate in the Company Register (%Buss_net_enrol). The third set (Capital markets and corporate finance) is expressed via a variable measuring funding risk (%Financrisk) as funding decay percentage. Three variables are further used to determine the scientific research and innovation level attained by the region being considered: as found in Di Gregorio and Shane (2003), O’Shea et al. (2005), Powers and McDougall (2005) and Pazos et al. (2012), the first is measured by the company R&D spending rate (%Buss_R&D) expressed as GDP percentage of R&D expenditures (both public and private); the second is determined by innovation skills (%Innovation_resexp), expressed as GDP percentage of intramural expenditures borne by public administration, Universities and public and private entities for R&D activities, whereas the third is measured via company R&D personnel rate (N_R&DStaff). In accordance with Vinig and Van Rijsbergen, (2010), Pazos et al. (2012), Fini et al. (2011) and O’Shea, et al. (2005), the above-mentioned variables are supplemented with data concerning the infrastructural support given to local entrepreneurial setting, expressed via the number of corporate incubators operating in each region. The said information is encoded in a set of four variables expressing the incubation rate according to the nature and features of the entity providing incubator services: “%Incub_gen” (general incubators), “%Incub_mixpublic” (mixed-public nature), “%Incub_fin” (presence of financial institutions), “%Incub_uni”, (presence of universities). As far as the latter set of variables is concerned, variables are structured on a microanalysis level (data drawn from the approved financial statements as of 2013) and are used to measure the economic-financial performance achieved by ASO, by means of the mean return on equity (Mean_ROE) as well as the mean current liquidity ratio (Mean_ILC).

5. Results

5.1. Incubators in Italy

The empirical analysis shows the presence of 162 incubators on the national territory, though they are not representative of the whole population of activated incubators since it is difficult to identify the private ones. From the observed sample, frequency distributions on the regional level (Table 1) appears to be homogeneous for those entities over the national area, even though a slightly higher prevalence can be observed in the northern regions. Most of these incubators are the result of public intervention, particularly by local authorities and regional development agencies; that indicates a prevalence of their non-profit character. In both the northern and southern areas, the role of universities in start-up and managerial activities of incubators is significant; this leads to consider universities as a preferential tool for technology transfer from public research to the market. On the other hand, there is a less prominent participation in the share capital of incubators by financial institutions, primarily represented by banks, especially in the regions of the South. The predominantly public nature of those entities and their non-profit character may act as a deterrent to the attraction of financial partners, especially in the social and economic areas that are experiencing phases of stagnation.

TABLE 6: INCUBATORS

Geographic distribution	No. Incubators	% incub_gen	% Incub_mixpub	% Incub_fin	% Incub_uni
Center	45	27.78%	77.78%	24.44%	62.22%
Emilia Romagna	5	3.09%	80.00%	20.00%	60.00%
Lazio	9	5.56%	88.89%	44.44%	100.00%
Marche	7	4.32%	42.86%	14.29%	85.71%
Toscana	17	10.49%	94.12%	23.53%	47.06%
Umbria	7	4.32%	57.14%	14.29%	28.57%
North	64	39.51%	85.94%	31.25%	68.75%
Friuli Venezia Giulia	5	3.09%	100.00%	40.00%	100.00%
Liguria	4	2.47%	100.00%	25.00%	100.00%
Lombardia	18	11.11%	72.22%	33.33%	50.00%

Piemonte	19	11.73%	94.74%	21.05%	63.16%
Trentino Alto-Adige	5	3.09%	80.00%	0.00%	40.00%
Veneto	13	8.02%	84.62%	53.85%	92.31%
South	53	32.72%	88.68%	9.43%	88.68%
Abruzzo	14	8.64%	100.00%	0.00%	100.00%
Basilicata	1	0.62%	100.00%	0.00%	100.00%
Calabria	8	4.94%	87.50%	12.50%	50.00%
Campania	10	6.17%	100.00%	30.00%	100.00%
Puglia	8	4.94%	100.00%	0.00%	87.50%
Sardegna	7	4.32%	71.43%	0.00%	85.71%
Sicilia	5	3.09%	60.00%	20.00%	100.00%
Tot.	162	100.00%	84.57%	22.22%	73.46%

5.2. Academic spin-offs in Italy

Descriptive statistics for the sample analyzed, divided into two spatial levels investigated – the geographical macro-area and region - are shown in Table 2 and Table 3.

Table 2 show frequency distributions (both in absolute and relative terms) of active spin-offs together with their graphic representations. It can be observed that most of the spin-offs (43%) are located in the North with a major presence in Lombardy, while the 34% of ASOs are located in Central Italy, with a largest presence in Emilia Romagna. The South of Italy includes the 23% of the national active spin-offs, which are mainly concentrated in Puglia.

TABLE 2: FREQUENCY DISTRIBUTIONS OF SPIN-OFFS BY GEOGRAPHIC AREA

Geographic distribution	Absolute frequencies	Relative frequencies
Center	137	33.83%
Emilia Romagna	48	11.85%
Lazio	14	3.46%
Marche	26	6.42%
Toscana	35	8.64%
Umbria	14	3.46%
North	176	43.46%
Friuli Venezia Giulia	37	9.14%
Liguria	13	3.21%
Lombardia	56	13.83%
Piemonte	39	9.63%
Trentino Alto-Adige	3	0.74%
Veneto	28	6.91%
South	92	22.72%
Abruzzo	9	2.22%
Basilicata	1	0.25%
Calabria	9	2.22%
Campania	14	3.46%
Puglia	37	9.14%
Sardegna	17	4.20%
Sicilia	5	1.23%
Tot.	405	

Table 3 show, on the other hand, distribution of spin-offs based on age criteria that highlights as most of the spin-offs are aged less than 10 years and, especially in the North and in the South there is a prevalence of active units that are aged less than 5 years (97 in the North and 58 in the South, respectively). The young age of the investigated spin-offs (only 7 companies have more than 15 years of age), indicates that in Italy the spin-offs phenomenon is very recent.

TABLE 3: SPIN-OFFS AGE BY GEOGRAPHIC AREA

Geographical area\ seniority	1-5 ages	6-10 ages	11-15 ages	> 15 ages	Tot.
Center	63	60	11	3	137
Emilia Romagna	14	28	6	0	48
Lazio	14	0	0	0	14
Marche	14	12	0	0	26
Toscana	15	13	5	2	35
Umbria	6	7	0	1	14
North	97	68	9	2	176
Friuli Venezia Giulia	17	15	5	0	37
Liguria	8	4	1	0	13
Lombardia	28	24	3	1	56
Piemonte	20	19	0	0	39
Trentino Alto-Adige	3	0	0	0	3
Veneto	21	6	0	1	28
South	58	27	5	2	92
Abruzzo	4	5	0	0	9
Basilicata	0	1	0	0	1
Calabria	1	3	4	1	9
Campania	11	3	0	0	14
Puglia	27	9	0	1	37
Sardegna	12	4	1	0	17
Sicilia	3	2	0	0	5
Tot.	218	155	25	7	405

5.3. Incubators and academic spin-offs performance

The correlation analysis (Tab. 4) between the nature of the incubator and the spin-off performance measured on the rate of return on equity (Mean ROE) shows positive and significant correlations when banks are present in the group (0, 33). On the other hand, a negative correlation (-0.24) can be noticed when incubators of a public or mixed nature or where university is a partner are involved (-0.32). Given that most of Italian incubators are of this type, this evidence raises concern on the actors' ability to positively contribute to the corporate performance. Indeed, an overall positive and significant but very low correlation (0.12) can be noticed between the ROE and the presence of several types of incubators on the regional level, thus confirming, at least in part, the positive role those actors can play on the revenue-generating performances of spin-offs (Hp1). In fact, descriptive statistics show higher levels of ROE (12.10%) in northern regions, where the presence of incubators is noticeably larger, too. However, the negative result of ROE for spin-offs located in southern regions is ambivalent as the presence of incubators in those regions is considerable. This leads to an in-depth analysis of the social and economic aspects of the local context. Similarly, it is interesting to study the correlation between the characteristics of the incubators and the financial position of the ASO considered

TABLE 4: CORRELATION ROE AND ILC VS INCUBATORS

	Mean ILC	Mean ROE
Mean ILC	1	--
Mean ROE	--	1
% Incub_gen	0.205708905	0.120200969
% incub_mixpublic	0.13597866	-0.35939615
% Incub_fin	0.578005557	0.334020376
% Incub_uni	0.055525397	-0.32261528

In order to confirm Hp2, a positive correlation (0.57) between the participation of banks in the share capital of incubators and the current liquidity ratio (Mean ILC) of ASOs associated to the incubator has been found. This would confirm the positive contribution offered by these actors to the financial stability of ASOs. A positive yet very low correlation (0.13), has been observed in the presence of public and mixed incubators and university incubators (0.06). The result should be further investigated in the future by gathering information relating to the public funding obtained by national and international research programs, in order to evaluate the role played by universities in resource attraction. On the whole, as regards the financial situation, a positive though very low correlation (0.20) can also be noticed between the current liquidity ratio and the presence of several types of incubators at the regional level, although again public-university incubators or regional incubators do not seem to promote the financial performances of the incubated firms included in the sample. Unlike the ROE, the best levels of current ratio on a regional basis are observed in central areas (3.63) where, nevertheless, the presence of banks is not higher than in the other areas (24.4%). Once again, this result needs to be associated to the peculiarities of the context.

5.4. Regional context and academic spin-offs performance

In order to investigate how determinants related to the local environment affect the performance of academic spin-offs, and therefore validate the Hp3, we use regression analysis between variables expressing the corporate financial performance (ROE and ILC) and variables expressing the characteristics of the regional context (see section 4 for details).

The correlation analysis between the aggregate values assumed by return on equity (ROE) of academic spin-offs at the regional level and context variables (Tab. 5) shows a positive and significant correlations between the ROE and industrial value added (0.50), as well as with R&D personnel rate (0, 49), emphasizing the role played by innovative processes and industrial surplus that are generated in the local context to stimulate the ASO activities. Positive correlations, although less stronger, are found also between the ROE and the capital accumulation intensity (0.29), as well as with the company R&D spending rate (0.29) Vice versa, negative correlations are found between ROE and the gross registration rate in the National Companies Register (although decreasing, going from -0.59 in 2011 to -0.24 in 2012); the same account for the net registration rate in the National Companies Register (-0.48). There is also a negative correlation between ROE and the funding risk (-0.30), a symptom of an unhealthy entrepreneurial context that has a negative impact on business performance.

TABLE 5: CORRELATION ROE AND ILC VS LOCAL CONTEXT

	Mean ROE	Mean ILC
Mean ROE	1.00	--
Mean ILC	--	1.00
%Acc_capital	0.29	-0.48
%Busserv	0.08	0.34
Ind_VA	0.50	0.26
%Buss_gross_enrol	-0.59	0.11
%Buss_net_enrol (2011)	-0.24	0.53
%Buss_net_enrol (2012)	-0.48	0.28
%Financrisk	-0.30	-0.16

%Buss_R&D	0.29	0.19
%Innovation_resexp	0.12	0.32
N_R&DStaff	0.49	0.25

Results of the correlation analysis between the aggregate values assumed by current liquidity ratio (ILC) of ASOs at the regional level and context variables (Tab. 5), instead, show a positive and significant correlation between the ILC and the net registration rate in the National Companies Register (0.53 in 2011 and 0.28 in 2012), highlighting how the number of firms in the regional area affect ties between ASOs and the entrepreneurial context and through them performer better, but also the greatness of the ASOs market by increasing their marketability. Other positive correlation, although less significant, are found between ROE and other context variables (company service development capacity, industrial value added, company R&D spending rate, innovation skills and company R&D personnel rate) underling the same positive considerations show by the correlations analysis with ROE. Contrary, there is a negative correlation between the ILC and the capital accumulation intensity (-0.48), as well as, although not more significant, with the funding risk (-0.16), highlighting how greater financial risks in the local context inhibit business investment and affecting the academic spin-offs performance.

From the empirical evidence gathered it can be inferred that the Hp3 results to be accepted, because the correlations show reasonable evidence of how the features and determinants of the local context positively influence the spin-offs performance.

6. Conclusions

The analysis highlights that the presence of incubators, here intended in a broad sense, is not sufficient to guarantee a good economic and financial performance of incubated ASOs. For that purpose, the contribution of public incubators, that is the regional and university ones, is even less effective, although they represent most of the business facilitators activated in the context observed. First of all, it can be concluded that the geographical proximity between business facilitators and firms meaning to create innovation on the territory is not a sufficient condition to guarantee the establishment of relations capable of contributing effectively to the economic and financial outcomes of the firms involved. A better result can be observed, on the other hand, in the presence of financial institutions that participate in the share capital of the incubators, which takes on both a public and a private nature in the cases under consideration. The nature of the partners of an incubator acts, therefore, as a predictor for the effectiveness of the action performed by the stated entities; hence, it can be deduced that the choice made by a private investor, in this case by banks, to keep on investing in an incubator can be said to be is often driven by the expectations of the return on investment, here intended in a broad sense, which is related to them. However, in the context under consideration, the presence of private sponsors for incubators is not significant, especially in southern regions, where public entities are still predominant. This leads to further explore the type of services, processes and managerial structures that characterize the several categories of incubators in the future. Some of our empirical investigations focused on the role played by the features and sizes of regional contexts as crucial factors in the performance of ASOs. The results of our analyses show how these factors play a major role in allowing ASOs to reach better economic and financial performances and in explaining the differential emerging in territorial contexts. Specifically, it can be noted that in those contexts where the industrial network generates a higher surplus in terms of competitiveness (both on the level of added value and in the ability to develop business services), spin-offs show higher performances due mainly to quantitatively and qualitatively better connections found between ASOs and the industry thanks to their cooperative activities that increase the synergistic potentials so promoting the transfer of technology from universities (through spin-offs) to industry. Moreover, the connections between university and industry are underlined by the higher performances obtained by academic spin-offs located in contexts where firms invest larger resources in R&D (both in terms of expenditure and staff employed), an aspect that highlights the importance of applied research. Furthermore, this also points out how influential entrepreneurial culture is on the territory for, where a certain tendency of firms to invest in research and innovation is reported, a full development of academic spin-offs is also possible. In addition, is revealed as the degree of funding risk of a region reduces the capital accumulation by firms, also due to lower bank borrowings, impacting negatively on the financial performance of ASOs because the fewer resources for growth and development.

The results of this paper offer some cues to reflect on the implications in terms of public policy. In particular, regional governments – through national-based policies – should promote the relationships between territorial contexts, universities and academic spin-offs in those areas characterized by poor infrastructures and facilities and where key resources for the innovation and development of firms are lacking. Finally, local governments should be stimulated, by tax incentives and subsidized loans, business investment, especially those key to innovation, as it plays a key role in the full development of academic spin-offs and the socio-economic scenario.

References

- [1] Aerts, K., Matthyssens, P., & Vandenbempt, K. (2007). Critical role and screening practices of European business incubators. *Technovation*, 27(5), 254-267.
- [2] Almus, M., & Nerlinger, E. (1999). Growth of New Technology-Based Firms: Which Factors Matter?, *Small Business Economics*, 13, 141–154.
- [3] Audretsch, D. B., & Lehmann, E. E. (2005). Does the knowledge spillover theory of entrepreneurship hold for regions?. *Research Policy*, 34(8), 1191-1202.
- [4] Audretsch, D. B., Lehmann, E. E., & Warning, S. (2005). University spillovers and new firm location. *Research policy*, 34(7), 1113-1122.
- [5] Bellini, A., & Piccaluga, A., (2000). The role of the University in constituency-building for industrial and territorial innovations: reflections on an Italian experience. *Knowledge Flows in National Systems of Innovation*, 122-154.
- [6] Bigliardi, B., Dormio, A.I., Nosella, A., & Petroni, G. (2006). Assessing Science Parks' Performances: Directions from Selected Italian Case Studies. *Technovation*, 26, 489-505.
- [7] Cesaroni, F. & Gambardella, A. (1999). Dai contenitori ai contenuti: i parchi scientifici e tecnologici in Italia, in C. Antonelli (Eds). *Conoscenza tecnologica*, Edizioni Fondazione Giovanni Agnelli, Torino (eng. Science and technology parks in Italy).
- [8] Colombo, M. G., D'Adda, D., & Piva, E., (2010). The contribution of university research to the growth of academic start-ups: an empirical analysis. *Journal of Technology Transfer*, 35, 113-140.
- [9] Colombo, M. G., & Delmastro, M. (2002). How effective are technology incubators?: Evidence from Italy. *Research Policy*, 31(7), 1103-1122.
- [10] Di Gregorio, D., & Shane, S. (2003). Why do some universities generate more start-ups than others?. *Research policy*, 32(2), 209-227.
- [11] Feldman, M. P. (2001). The entrepreneurial event revisited: firm formation in a regional context. *Industrial and corporate change*, 10(4), 861-891.
- [12] Ferguson, R., & Olofsson, C. (2004). Science Parks and the Development of NTBFs – Location, Survival and Growth. *Journal of Technology Transfer*, 29, 5-17.
- [13] Fischer, M. M., & Varga, A. (2003). Spatial knowledge spillovers and university research: evidence from Austria. *The Annals of Regional Science*, 37(2), 303-322.
- [14] Grimaldi, R., & Grandi, A. (2005). Business incubators and new venture creation: an assessment of incubating models. *Technovation*, 25(2), 111-121.
- [15] Hackett, S. M., & Dilts, D. M. (2004). A Systematic Review of Business Incubation Research. *The Journal of Technology Transfer*, 29 (1), 55-82.
- [16] Hansen, M. T., Chesbrough, H. W., Nohria, N., & Sull, D. N. (2000). Networked Incubators: Hothouses of the New Economy. *Harvard Business Review*, 78 (5), 74-84. [17] Jaffe, A. B. (1989). Real Effects of Academic Research. *American Economic Review*, 79, 957-70.
- [17] [18] Link, A. N., & Scott, J. T. (2007). The economics of university research parks. *Oxford Review of Economic Policy*, 23(4), 661-674.
- [18] Löfsten, H., & Lindelöf, P. (2003). Determinants for an entrepreneurial milieu – Science Parks and business policy in growing firms. *Technovation*. 23(1), 51-64.
- [19] Looy, B. V., Debackere, K., & Andries, P. (2003). Policies to stimulate regional innovation capabilities via university–industry collaboration: an analysis and an assessment. *R&D Management*, 33(2), 209-229.
- [20] MacMillan, I., Zemann, C., & Subbanarasimha, P. N. (1987). Criteria distinguishing successful from unsuccessful ventures in the venture screening process. *Journal of Business Venturing*, 2, 123-137.
- [21] Marques, J. P. C., Caraça, J. M. G. & Diz, H. (2006). How can University-Industry-Government interactions change the innovation scenario in Portugal? The case of the University of Coimbra. *Technovation*, 26(4), 534-542.

- [22] McAdam, M., & McAdam, R. (2008). High tech start-ups in University Science Park incubators: The relationship between the start-up's lifecycle progression and use of the incubator's resources. *Technovation*, 28(5), 277-290.
- [23] Mian, S. A. (1996). Assessing value-added contributions of university technology business incubators to tenant firms. *Research Policy*, 25(3), 325-335.
- [24] Monck, C. S. P., Porter, R. B., Quintas, P., Storey, D. J., & Wynarczyk, P. (1988). *Science Parks and the Growth of High Technology Firms*. London: Croom Helm.
- [25] Muscio, A. (2010). What drives the university use of technology transfer offices? Evidence from Italy. *Journal of Technology Transfer*, 35, 181-202.
- [26] O'Shea, R. P., Allen, T. J., Chevalier, A., & Roche, F. (2005). Entrepreneurial orientation, technology transfer and spinoff performance of US universities. *Research Policy*, 34(7), 994-1009.
- [27] Olofsson, C., & Wahlbin, C., (1993, March). Firms Started by University Researchers in Sweden - Roots, Roles, Relations, and Growth Patterns. Paper presented at the 1993 Babson Entrepreneurship Research Conference, Houston, TX, 25-27.
- [28] Patton, D., & Kenney, M. (2010). The role of the university in the genesis and evolution of research-based clusters. In Fornahl, D., Henn, S., & Menzel, M-P (Eds.) *Emerging Clusters* (Cheltenham, UK: Edward Elgar), 214-238.
- [29] Phan, P. H., D. S., Siegel, & Wright, M. (2005). Science Parks and Incubators: Observations, Synthesis and Future Research. *Journal of Business Venturing*, 20 (2), 165-182.
- [30] Ratinho, T., & Henriques, E. (2010). The role of science parks and business incubators in converging countries: Evidence from Portugal. *Technovation*, 30(4), 278-290.
- [31] Rodeiro Pazos, D., Fernández López, S., Otero González, L., & Rodríguez Sandiás, A. (2012). A resource-based view of university spin-off activity: new evidence from the Spanish case. *Revista Europea de Dirección y Economía de la Empresa*, 21(3), 255-265.
- [32] Rothaermel, F. T., & Thursby, M. (2005). Incubator firm failure or graduation? The role of university linkages. *Research Policy*, 34(7), 1076-1090.
- [33] Salvador, E. (2011). Are science parks and incubators good “brand names” for spin-offs? The case study of Turin. *Journal of Technology Transfer*, 36(2), 203-232. [35] Schwartz, M. (2013). A control group study of incubators' impact to promote firm survival. *Journal of Technology Transfer*, 38(3), 302-331.
- [34] Scillitoe, J. L., & Chakrabarti, A. (2010). The role of incubator interactions in assisting new ventures. *Technovation*, 30(3), 155-167. [37] Siegel, D.S., Westhead, P., & Wright, M. (2003). Science Parks and the Performance of New Technology-Based Firms: A Review of Recent UK Evidence and an Agenda for Future Research. *Small Business Economics*, 20 (2), 177-184.
- [35] Shane, S. A. (2004). *Academic Entrepreneurship: University Spinoffs and Wealth Creation*. Edward Elgar Publishing, Cheltenham, UK.
- [36] Siegel, D.S., Waldman, D., & Link, A. (2003). Assessing the impact of organizational practices on the productivity of university technology transfer offices: an exploratory study. *Research Policy*, 32 (1), 27-48.
- [37] Sofouli, E., & Vonortas, N. (2007). S&T Parks and business incubators in middle-sized countries: the case of Greece. *The Journal of Technology Transfer*, 32(5), 525-544.
- [38] Squicciarini, M. (2009). Science Parks' tenants versus out-of-Park firms: who innovate more? A duration model. *Journal of Technology Transfer*, 33, 45-71.
- [39] Sternberg, R. (2014). Success factors of university-spin-offs: Regional government support programs versus regional environment. *Technovation*, 34(3), 137-148.
- [40] von Zedtwitz, M. (2003). Classification and Management of Incubators: Aligning Strategic Objectives and Competitive Scope for New Business Facilitation. *International Journal of Entrepreneurship and Innovation Management*, 3(1/2), 176-196.
- [41] von Zedtwitz, M., & Grimaldi, R. (2006). Are Service Profiles Incubator-Specific? Results from an Empirical Investigation in Italy. *The Journal of Technology Transfer*, 31(4), 459-468.

- [42] Wessner, C. W. (2009). *Understanding research, science and technology parks: global best practice: report of a symposium*, National Research Council of the National Academies, Washington DC, The National Academies Press, downloaded from <http://www.nap.edu/catalog/12546.html>.
- [43] Westhead, P., & Storey, D. J. (1994). *An Assessment of Firms Located On and Off Science Parks in the United Kingdom*, London, HMSO.
- [44] Wright, M., Clarysse, B., Mustar, P., & Lockett, A. (2007). *Academic Entrepreneurship in Europe*, Cheltenham UK, Edward Elgar.
- [45] Youtie, J., & Shapira, P. (2008). Building an innovation hub: A case study of the transformation of university roles in regional technological and economic development. *Research policy*, 37(8), 1188-1204.

End Notes

¹ Although the research has been conducted jointly, is shown below the parts relating to Christian Corsi, Daniela Di Berardino and Antonio Prencipe: Christian Corsi: section 3 and section 5 (5.2 and 5.4); Daniela Di Berardino: section 2 and section 5 (5.1 and 5.3); Antonio Prencipe: section 4; Christian Corsi, Daniela Di Berardino, Antonio Prencipe: section 1 and section 6.

Knowledge Management & Generational Change: the impact on local SMEs

Concetta Lucia Cristofaro, concetta.cristofaro@unicz.it

Anna Maria Melina, annamariamelina@tiscali.it

Rocco Reina, rreina@unicz.it

Marzia Ventura, marziaventura@unicz.it

Department of Law History Economics and Social Science

University of Catanzaro "Magna Græcia", Italy

Knowledge Management & Generational Change: the impact on local SME

Abstract

The paper wants to analyse the role and the impact of knowledge management in the development of local SME's specifically linked to the stage of business succession and generational change. In SME'S the generational transition is critic and often become a real and complex situation to overcome. The aim of the work is to understand if knowledge management can be a lever with which it is possible to support the generational transition and what are the empirical mode used in some different organizations investigated, all of them engaged in this critical stage.

The work in progress research is focused on the different actors and methods involved in the generational change. In this way different figures are investigated like entrepreneur and his/her next generation and management engaged, but otherwise the role of practical methods, guidelines, values and culture like specific forms of knowledge used in order to manage the business process.

1. Introduction

In the current business environment, knowledge is a crucial competitive factor for the firm's success. Even in the system of SMEs, with a strong work intensive approach, the value of knowledge is clear, but often it's difficult to recognize all the different components involved (Takeuchi, 2001); in this way it's easy to underestimate the real effects and lead the businesses to the crisis. But in the dynamic markets with a high rate of innovation it's essential that the entrepreneur points to the development and management of different aspects of knowledge (Spender, 1996). On the other hand, in a country like Italy - with a large presence of SMEs, internationally known for the quality of their Made in Italy (CNA, 2008) – it's necessary to work on the development and transfer of knowledge, not only as a prerequisite for the continuity of the business, but also for the growth of the national economy at all. Thus, the paper aims to identify and analyse - through an empirical approach - what are the principle tools for sharing, dissemination and use of knowledge present in SMEs, as fundamental elements for the survival and development of firms (Durst, Edvardsson, 2012), particularly in the difficult step of generational change. In fact this is a crucial moment in the firm's life because it involves the transfer from one generation to the next to a real assets of know-how and management expertise, acquired through years of experience. So regarding this particular stage of the firm, specific role could have the knowledge management like a strategic tool to overcome the generational crisis and support the enterprise in the way of development and growth.

2. Methodology

The present work was imagined and projected from the desire to deepen – in the complex process of "generational succession" of SMEs - the role of knowledge and management tools suitable for its management. Aim of this paper is to bring out and discuss the main issues faced in this particular moment of business life, between those who represent the outgoing generation and those that represent the incoming generation.

There are about 80,000 Italian entrepreneurs who each year are involved in the generational transition and 80% of them is in a particularly delicate and difficult stage to manage. According to research of INFOCAMERE (2012) only 31% of family businesses get through to the second generation and only 15% in its third generation. In Italy, 71% of employers plan business succession between 61 and 70 years old; 67% of them organizes the generational transition over 71 years. Therefore it follows an entrepreneurial people with high seniority registry. Based on these premises, the paper represent a work in progress research, organized to deepen actors and methods typical of the process of generational succession, by analyzing how role, guidelines and values end up to impact on the effectiveness of inheritance. The methodology adopted is embodied in the following phases: A first step on the desk it's finalized to the exploration of the main literature on generational succession and knowledge. A second step on the job it's directed to explain and highlight what forms of knowledge and organizational tools have been fully implemented in a

selection of SMEs in the Province of Catanzaro. Specifically, the Firms investigated was n°3, selected and become from Industrial Association of Catanzaro's district (Confindustria Catanzaro). A specific check list of semi-structured interview was used was used to collect information from the entrepreneurs involved.

3. Theoretical framework: generational transition in the family business

In recent years, the issue of inheritance or succession planning in SMEs remained constantly a specific topic in management studies. In response to a question already manifested, but in part still latent, this argument of the generational shift had over time significant encouragement from European Commission¹ to deepen in different ways and with different approaches the theme. In the following table (Table n°1) are identified a selection of contributions of particular interest to define the characteristic features of family businesses.

TABLE 1: DIFFERENT DEFINITIONS FOR FAMILY BUSINESS

Source: our elaborations by Vallone (2009)

Author	Definition
Channon (1971)	An enterprise may be said to be familiar when it is controlled by a family for at least two generations
Bork (1986)	A family business is a firm founded by a family member and who has been transferred or is in the process of being transferred to the descendants. The descendants of the founder will own and will control the company. In addition, work and participate in company activities and they stand to profit.
Churchill e Hatten (1987)	For family business means the event or the expectation that the youngest member of the family takes or take control of the company from the older generation.
Upton e Sexton (1987)	Define a business like family when they are at least two generations, and when at least two family members are employed daily in the management.
Donneley (1988)	Consider a business like family when she was closely identified with at least two generations of a family or when this bond had a mutual influence on the policies of the company and the interests and goals of the family.
Ward (1990)	Family is a firm where the management and control will be passed on to new generations of the family.
Schillaci (1990)	The family business is a business that can intimately identify with a family (or several families), for a generation or more. The influence of the family on the company is entitled from the ownership of all or part of the venture capital and exercised also through the participation of some of its members to management.
Gallo (1992)	The characteristics of the familiarity of a business are to be considered related to the permanent union between the two institutes (family and business). This link must be based on values and assumptions that members of a generation consider more correct to conduct the business and the family and strive to pass it to future generations.
Raymond (1994)	Defines the family business as a firm in which the family is able to control the succession to the Chief Executive Officer and his direction.

Astrachan e Kolenko (1994)	They write that is familiar business in which the family controls the capital, more than one family member is involved in the company and that there is the prediction of the transfer of ownership to the members of the emerging generation.
Heck e Scannell Trent (1999)	In accord with this approach, the authors stress that there must be the intention to transfer or a generational shift in managerial control. If it does not intend potential means that the company could become a Public Company or may have the intention to take professional managers.
Rouvinez e Ward (2005)	For the authors a family business is a company that is substantially affected by one or more family members. Family includes a group of people descended from a couple, their related and the couple itself. Influence of the family is basically generated by the ownership of the entire capital or in their absence, it is balanced by the influence of the governing body and management.

The different contributions submitted in the table, showed that the succession in family business became over time a particularly sensitive topic, so that all the actors involved are called to redefine roles and relations.

In fact, often, the founder of the business family tends to ignore the demands of succession planning, resulting in conflicting reports and critics with the potential successor in an unfinished sequence that puts at risk the survival of the same family firm (Kets de Vries, 1993). Following matrix (table n°2) explicit and summarizes the possible types of transition obtained, as a result of different relationships / behaviors activated between outgoing and incoming contractor in the generational change.

TABLE: TYPES OF TRANSITION

Source: our elaboration by piantone, 1990; miglietta, 2009

	Physiological Succession	Pretension Succession	Enthralling Succession	Traumatic Succession
Succession without abdication	Easy	Easy	Easy	Easy
Succession with abdication	Problematic	Problematic	Problematic	Problematic
Succession delayed or evaded	Problematic	Problematic	Easy	Problematic

The matrix demonstrates two different transactional models, the critical one, where the entrepreneur tries to escape to the succession, while the successor has a strong and immediate claim to take over; that smooth, in which the propensity of the entrepreneur to promote the transition of knowledge skills and compare it with the availability of the successor to a process of gradual involvement in the business. So, the generational shift ends with the brand themselves as a very complex process, being influenced by many variables, some attributable to the contextual features of the business (competitive environment, growth rate, the legal system, etc ...), all other company (organizational dimension, systems of roles and positions, technology, culture and values, etc ...), and others linked to the characteristics of the parties involved (owners and entrepreneur involved in the succession of generations, culture and family values, etc...), other influenced by the operating procedures adopted in practice (systems of transfer of knowledge and skills, education and training, organizational models, etc...). The process of

entrepreneurial succession can take place in conditions of presence or absence of heirs; therefore, the sequence can be effective if there are the heirs of the company, whether derived - even in the presence of heirs – when these are considered as incapable of running the company and so to manage the same transition.

The process of transition in generational change can occur in the condition of the absence or presence of the heirs that can be effective when there is an absence of heirs, when derivatives even if you are not considered suitable for the succession. In some cases there is the presence of a multiplicity of heirs and this brings forth a series of conflicts in family relationships that, in some cases, determine the assignment of the company. In other cases, even if there is the figure of the heir this may prove unsuitable to the direction of the company and therefore we resort to an external figure. When the founder out by the firm shall not his knowledge, skills and characteristics considered important for the development of the company, so the one who will replace him must have adequate knowledge to continue to run the business. Therefore, the entrepreneur \founder must have the ability, during the process of development of relations with the successor, to lead the training of specific skills for the continuation of the business, taking care not to restrict the freedom of self-determination of the future, because the opportunity to develop a personal vision to the successor enables the so-called "innovation intergenerational" (Litz and Kleysen, 2001). On the other hand, the same attitude of the successor can be conservative (attachment to the past), rebellious (rejection of the past), fluctuating (incongruity between past and present), and this situation can influence the chances of the process of succession (Miller, Steiner and Le Breton - Miller, 2003); so the same successor may have different characteristics:

- does not possess the required skills and consequently adversely affects the management of the company;
- has an adequate supply of skills but without any innovative trend, therefore the management is affected by the inability to adapt the successor;
- has a very wide knowledge management that allows it to efficiently manage the company, directing the development and growth in accordance with the opportunities offered by the competitive scenario.

Therefore, precisely with regard to the items reported in the generational succession specific role have internal relations within the family, the opportunity to increase their knowledge on the processes of the business, communication processes adopted, taken for granted, but often sources of misunderstandings and surprises are not easily circumvented. That is why, once identified actors and context, specific study concerns - the purpose of the present study - the processes that knowledge transfer can be implemented in order to support and enable a less traumatic transition of the business among the generations involved.

4. The role of Knowledge in the process of generational succession

After clarified the scope and the different elements influencing the time of succession, the planning process of generational change can be decomposed into its main phases emerging (Sharma, 2004; Miglietta, 2009). The start-up phase and / or preparation can often be supported by use of the appropriate organizational units that are responsible for preparing the succession plan and its monitoring (Carlock and Ward, 2001). The next stage regards the formation of the heir that begins after the definition of the minimum requirements needed for entry into the family business. This training is to be adjusted according to the needs related to business roles (Cabrera-Suarez, De Saà-Perez, Garcia-Almeida, 2001). The phase of the choice of successor is quite delicate, as it should prefer people who have the most appropriate skills to the management of the business. Nevertheless this phase is characterized by the propensity to choose a family relying on emotional and not on the objective one, making it more complicated the resulting process. Therefore often the presence of external consultants to the family is considered more effective in achieving organizational objectives. The complex process of generational succession ends with the transfer of company and with drawl from the scene of the founder (Fleming, 2000). The real result of the planning of generational process depends on the degree of interdependence that binds “Family, Property and Business”, conflicts that may arise in the distribution of the charges, and the relationship between predecessor and successor. Tagiuri and Davis (2004) identify the different relationships that arise from the superposition of the three systems, represent in the FIG. 1.

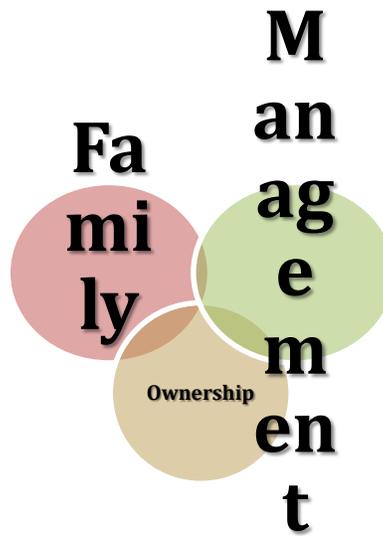


FIGURE 1: RELATIONSHIP IN TRANSITION: F - M - O
Source: our elaboration by tagiuri and davis, 2004

The interdependence between the three sub-systems, identifies how each one has its own identity and strength, as well as the objectives and rules of action, but at the same time it relates to and interface with others by contributing to the success in the transition from one generation to the next. As explained above, at the time of the transfer sequence and the support of the values rooted in the culture of the family becomes important because without the force generated by these process continuity and growth may be interrupted. Thus, recovering and schematizing phases characterizing the process of succession planning (FIG. 2), it is necessary to find the right balance between recognize and internalize the values of the past, with their appropriate reinterpretation in order to enable new applications.

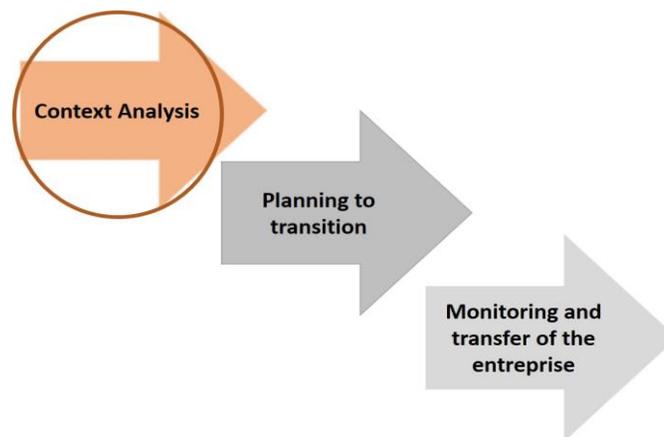


FIGURE 2: FIRST STEP “ANALYSIS OF THE BUSINESS ENVIRONMENT”
 FOR THE GENERATIONAL SUCCESSION
Source: our adaptation by gallucci and gentile, 2000

Thus, the analysis of the business environment allows to identify the environment of the family, whose focus on common heritage, will start the planning phase of succession. In fact, in family businesses the company's assets is made not only by the productive assets, from all those issues of value that can strengthen the identity of the business such as:

- Identification of the firm as Public good, to be managed with great responsibility towards all stakeholders (customers, suppliers, partners of the supply chain);
- The meritocracy that helps to make clear choices in the selection of personnel;
- Entrepreneurship that sees every generation involved in contributing to business growth.

Often, we think of the succession only in terms of contracts, capital charges, but it is difficult to think of the body of knowledge that are likely to be lost during this process. A company that is based on knowledge, acknowledging the fact the strategic importance and the value represented by the people and their knowledge, giving a key role, especially in a crucial phase as that of the generational shift. Thus, the transfer of the knowledge leads to the possibility to reduce the effects caused by the loss of expertise that may occur when the founder leaves the company (Botti, 2006). Only a few years ago, the continuity and sustainability of the enterprise is linked to the transfer of knowledge, that matter planning organizational solutions facilitating the successor in understanding the context.

Thirteen years ago McAdam and Reid (2001) wrote that Knowledge Management (KM), like other management practices, was invented and developed in large organizations to be applied later on in small and medium-sized enterprises (SMEs). From 2005 there seemed to be an increasing interest in the topic. Knowledge management became an emerging field that has commanded attention and support from the industrial community. Many organizations currently engage in knowledge management in order to leverage knowledge both within their organization and externally to their shareholders and customers. Knowledge management involves the creation of value from an organization's intangible assets (Rubenstein-Montano, Liebowitz et al., 2012). So even with reference to SMEs, over the past few years, there has been felt the need to develop a system of management skills / knowledge in the company by defining, in this way, an overall strategy capable of producing longer lasting effects than those traditionally oriented to exploitation of market opportunities (Camuffo 1996; Sbrana, 1996). This will enable businesses to increase responsible capabilities and organizational flexibility, focusing on the ability to manage the processes and tools through which knowledge can be created, disseminated and shared in the company (Hunt, 2008). The theme of knowledge has long been addressed by scholars of organizational disciplines, developing and enriching in parallel to what happened in firms with reference to business studies, enriching the implications flow from IT to Management² (De Nito and Reina, 2003). A key aspect to deal with when it comes to knowledge is related to the nature of knowledge and its size. As for the size, the knowledge must be analyzed from two aspects both ontological and epistemological. The former refers to those who create knowledge moving from the individual to the organization, it can be said that knowledge is a product of the individuals in an organization because without them it could not create knowledge (Monzani, 2005). From the epistemological point of view, however, the concept of knowledge has always been a place of comparison and interpretation within the scientific community: from the classical distinction between tacit and explicit knowledge to the leaky / steaky (Polanyi, 1966; Nonaka, 1994; Brown and Duguid, 2001). Tacit knowledge is personal, context-specific and difficult to be formalized, while explicit is coded and transmitted through a formal and systematic language. Also, while tacit knowledge is highly subjective and difficult to define, explicit on the other hand can be expressed in words and numbers and, once organized, can be distributed in the form of data, formulas and manuals. The distinction between tacit and explicit knowledge, then, is the starting point for any cataloging of the concept of knowledge and just starting from the famous distinction of Polanyi, Nonaka is a remake of this distinction in order to formulate a new model of knowledge conversion. It must also be pointed out that despite the differences between tacit and explicit knowledge, it is still two complementary dimensions because knowledge can not be decomposed into two separate entities since it is composed of a tacit and explicit by another that "can be divided sharply" (Polanyi, 1988). Compared to the further distinction, the leaky size considers knowledge as a resource to be spread within the organization and focuses on the ways in which the organization must act to encourage the creation, growth and dissemination of knowledge. The steaky size, however, identify knowledge as a resource which share must be limited and therefore bother to make sure that the knowledge is not transferred to people who may take advantage of it. Obviously, these insights refer and are interwoven with reflections on the types tacit / explicit knowledge and the potential opportunities "to identify defensive mechanisms to limit the escape" (De Nito and Reina, 2003) (see FIG. 3).

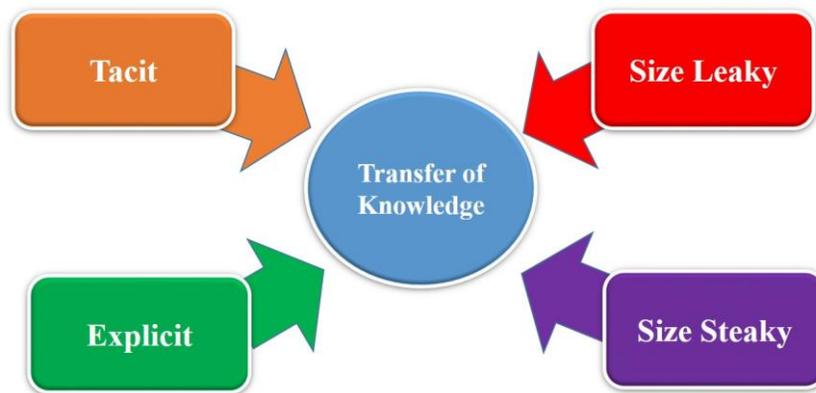


FIGURE 3: SIZE AND TYPOLOGY OF THE KNOWLEDGE
 Source: our elaboration by nonaka 1994 and polanyi 1988

KM research tended over time to focus on processes and structures within organizations, able to transform knowledge from tacit to explicit, organizational culture and learning, and technologies for knowledge storage and sharing to enhance productivity and sales, reduce cost, or increase innovation and quality (Kluge et al., 2001; Quintas, 2002; O’Dell et al., 2003; Edvardsson, 2009; Jashapara, 2011). The subject of knowledge management implementation is another KM topic relatively widely examined. The findings illustrate that the SMEs reviewed use different ways to handle the aspect of knowledge management implementation. This raises the issue of heterogeneity (Curran and Blackburn, 2001) which must be taken into consideration when researching and discussing SMEs. Furthermore, some studies imply that SMEs are involved in KM activities, especially in business succession. The passing of the baton in the succession of a family business represent in fact some peculiarities, already identified above with reference to the actors involved. The communication flows can be facilitated through communication between people who already know each other because there is a family relationship, which eventually leads to connote the relationship and closer trade relations, compared to the other obstacles already identified and related to the management of the relationship between employer and successor (Botti, 2006).

5. Empirical Analysis: Reference Context

The data at European level on Small and Medium-sized Enterprises show that 99% of companies fall into this bracket, and 9 of 10 are micro firm with a staff of fewer than 10 people. So, the European economy is based, therefore, on a group of micro companies employing an average of 2 or 3 people. The passing of the baton within the enterprise is a phenomenon that affects a considerable number of business realities operating in our country especially SMEs. The situation of dimensional data of Italian firms - shown in the table below – regard the year 2010, in which it’s possible to highlight the diversity of different companies, by sector, size, ownership structure, propensity to export and innovation.

TABLE 3: TOTAL NUMBER OF SEPARATE ENTERPRISES³ BY SECTOR OF ECONOMIC ACTIVITY (absolute values)
 Source: ISTAT, Statistical Archive of Active Companies, 2011

Employees Range	Industry	Construction Industry	Trade, Transport, Hotels	Other Services	Total Industry	Total Employees
1	153.224	342.897	840.488	1.319.159	2.655.768	2.480.178
from 2 to 9	211.912	221.354	697.990	446.798	1.578.054	5.341.753
from 10 to 19	45.215	19.013	48.900	24.084	137.212	1.795.963

from 20 to 49	21.809	5.783	15.783	10.843	54.218	1.613.195
from 50 to 249	9.496	1.361	5.268	5.914	22.039	2.125.788
from 250 e più	1.416	83	909	1.238	3.646	3.520.706
Total	443.072	590.491	1.609.338	1.808.036	4.450.937	16.877.583

If we consider, finally, the number of firms by geographical (for thousand inhabitants) it can be seen that in the area of the North - East there is a greater concentration of businesses in the area and the bottom of the South (Table n°4). In addition, from 2010 to 2011 there was a decrease in North-East regions.

TABLE 4: BREAKDOWN BY COUNTRY (for thousand inhabitants)

Source: ISTAT, 2013

Country	2010	2011	Change
North-west	69,6	69,7	0,1
North-east	71,6	70,9	-0,7
Central	68,5	69,8	1,3
Central-North	69,8	70,1	0,3
South	51,4	51,5	0,1
Italy	63,5	63,6	0,1

On 31 December 2013 there has been a stream of registrations amounted to 384.483 businesses, against a stream of terminations, to the net of cancellations of office, of 371.802 businesses. The demographic balance was positive and amounted to nearly 13.000 new businesses. The best growth rates of the companies in 2013 were recorded in the northwest and south of the country (table 6).

TABLE 5: EVOLUTION OF ENTERPRISES REGISTERED BY GEOGRAPHICAL AREA

Source: Unioncamere- Infocamere - Monvimpresa (2013)

Geographical Area	Registrations	Closures	Growth rate 2013
North-west	100.197	96.457	0,23%
North- east	70.660	77.385	-0,56%
Central	86.507	76.895	0,74%
South- and Islands	127.219	121.065	0,31%
Italy	384. 483	371.802	0,21%

Going specifically, the same source points out that the rate of growth of enterprises in Calabria in 2013 was 0,35% with a positive balance of 625 new companies.

6. Empirical Analysis: case studies & reflections on theme

Given the assumptions outlined, the future of the Italian passes, more than ever, through the ability to enhance the contribution of the human factor within the system of business. All family businesses, for the same process of genesis that characterize them are rooted in a heritage of values handed by the family that owns and updated through the different generations. Without the force generated by the values rooted in the culture of family ownership, the process of continuity and growth of the company would stop. The theoretical model suggested (Fig. 4) is, as an example, the following.

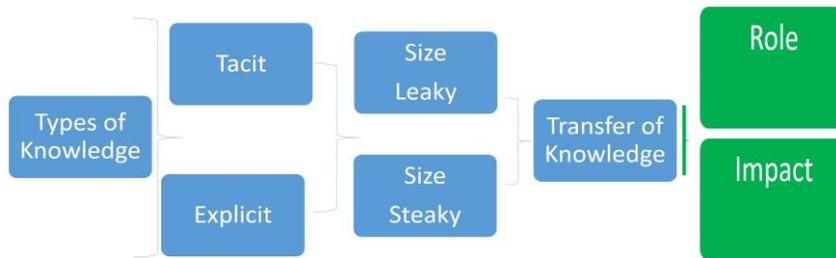


FIGURE 4: THEORETICAL MODEL

Source: our adaptation by Nonaka 1994 and Polanyi 1988

On the theoretical model discussed above, the surveys developed on the field have explored whether and how knowledge is seen as a strategic tool used by the entrepreneur in the complex process of generational succession. Specifically, the companies under study were No. 3, selected in companies associated with Confindustria Catanzaro, on the basis of specific situations; in fact, both are characterized by being SMEs, both are family businesses, both are living the coexistence of both generations proprietary, that parental outgoing and new incoming entrusted to the children. Thus, a check list of semi - structured interview was submitted to the entrepreneurs interviewed, designed with the aim to explore the theme and entrepreneurial positions relative; the research team therefore conducted these interviews - separately - than the two entrepreneurial generations, reporting the first results in the following table.

TABLE 6: FIRST RESULTS ON ANALYZED CASES

Source: our elaboration on questionnaires administered

Firm	Foundation year	Sector	Generation	Type of Knowledge transfereed	Methodology and Tools
Costruzioni Zinzi srl	1960	Construction company building	II°	Tacit and explicit	Intuitive component, observations, participation, mentoring, regular meetings
Destra Industrie srl	1984	Production & Trade of ecclesiastical robes and vestments	II°	Tacit	Intuitive component, observations
Cotto Cusimano spa	1972	Production and sale of building products, bricks, tiles	II°	Tacit and explicit	Intuitive component, observations, participation

While the first three columns describe briefly the types of companies involved, in the other columns (in the table above), are reported the most relevant data related to the object of analysis: moment generational lived, type of knowledge used in the process of entrepreneurial succession, awareness tools and methodologies useful to improve organizational performance. In fact, the objective of the survey was directed to explain and highlight what forms of knowledge are transferred and what tools are used in the organizational phase of generational change. From the taxonomy reported shows that the surveyed companies are all involved in the generational transition from the first to the second generation, and in all three contexts, there has been a transfer of both tacit and explicit knowledge. This transfer is done using tools such as mentoring, participation, intuitive components that significantly affect the wealth of knowledge of his successor.

What has been achieved, it seems clear to respondents highlight how the role of knowledge in its various phases of the acquisition, preservation and dissemination, and application of the transfer, is considered one of the key points on which it's necessary to face the challenge of growth and recovery of productivity for Small and Medium Enterprises. Another result of this first phase of the research, is the positive feedback - compared to the change in the style of leadership, management processes and organizational structure – related to a perspective that focuses on knowledge - especially at the stage of generational transition - that the enterprise produces through the consolidation of knowledge and value of the firm.

Next step of research will try to broaden the analysis respect other business sectors (services, food, etc ...) and compared with other territories (provinces and regions) in order to verify the comparability of the data and study on them.

References⁴

- [1] Botti, A., in Ferrari F., (2006). *Il passaggio generazionale delle PMI. La gestione della trasmissione d'impresa tra rischi e opportunità*. Franco Angeli Editore.
- [2] Brown, J.S., & Duguid., P. (2001). Knowledge and Organization: A Social Practice Perspective. *Organization Science* 12(2): 198-213.
- [3] Cabrera-Suaréz K., De Saà- Pérez P., García-Almeida D., (2001). The Succession Process from a Resource- and Knowledge-Based View of the Family Firm. *Family Business Review*, 14, pag. 38.
- [4] Caccia, C. (2008). *Management dei sistemi informativi in sanità*. New York, NY: McGraw-Hill.
- [5] Camuffo, A. (1996). Competenze: la gestione delle risorse umane tra conoscenza individuale e conoscenza organizzativa. *Economia e Management*, 2.
- [6] Carlock, R.S., Ward, J.L. (2001). Strategic planning for the family business. *Parallel planning to unify the family and business*. Palgrave, McMillan.
- [7] De Nito, E. and Reina, R. (2003). L'approccio social-construction al knowledge management: dalla gestione alla creazione della conoscenza. *26th AIDEA Conference*.
- [8] Durst, S., Edvardsson, I.R. (2012). Knowledge management in SMEs: a literature review. *Journal of Knowledge Management*, Vol. 16 Iss: 6.
- [9] Edvardsson, I.R. (2009). Is KM losing ground? Developments among Icelandic SMEs. *KNOWLEDGE Management Research & Practice*, vol. 7 n. 1, 91-9.
- [10] Fleming, Q.J. (2000). Keep the family baggage out of the family business. Avoiding the seven deadly sins that destroy family businesses. Fireside, New York.
- [11] Gallucci, C., & Gentile, G. (2006). *La transizione Generazionale nelle imprese familiari. Primi risultati di una indagine sul campo*. Dipartimento degli Studi e ricerche Aziendali , Università di Salerno, n.1.
- [12] Kets de Vries, M.F.R. (1993). The dynamics of family controlled firms: the good and the bad news. *Organizational Dynamics*, 21, Winter.
- [13] Kluge, J., Wolfram, S., & Licht, T.(2001). Knowledge Unplugged. The McKinsey & Company Global Survey on Knowledge Management, Palgrave, Houndsmills.
- [14] Litz, R.A., Kleysen, R.F. (2001). Your old men shall dream dreams, your young men shall see vision: Toward a theory of family firm innovation with help from the Brubeck family. *Family Business Review*, 14.
- [15] McAdam, R., & Reid, R.(2001). SME and large organization perceptions of km: corporations and contrasts. *Journal of Knowledge Management*, Vol. 5 n3, 231-41.
- [16] Miglietta, N. (2009). Family Business strategie di governo nell'impresa. Cedam Padova.
- [17] Miller, D., Steier L., Le Breton-Miller, I. (2003). Lost in time: Intergenerational succession, change and failure in family business. *Journal of Business Venturing*, 18.
- [18] Monzani, L. (2005). Knowledge management or knowledge creation? La sfida della risorsa conoscenza. *Persone e Conoscenza*, 30.
- [19] Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37. doi:10.1287/orsc.5.1.14.
- [20] Piantoni, G. (1990). *La successione familiare in azienda . Problemi critici e principali tendenze in atto*. Etas Libri, Milano.
- [21] Polanyi, M. (1988). *Conoscere ed essere*. Roma, Italy, Edizioni Armando.

End Note

¹European Commission – General Directorate of Enterprise, Final report of the expert group on the transfer of small and medium-sized enterprises, May 2002.

²The actually great attention to knowledge is not to be considered that in the past there was or was not to produce knowledge in enterprises; the difference lies in the fact that there arose the problem of its proper management and / or this happened so totally unaware, without adequately considering the importance of the relationship between knowledge and value to the company.

³ The micro, small or medium-sized businesses are defined according to their headcount and annual turnover; a Medium Enterprise is defined as an enterprise whose workforce is less than 250 people and whose turnover does not exceed EUR 50 million; a Small Business is defined as an enterprise whose workforce is less than 50 persons and whose annual turnover not exceeding EUR 10 million; a Micro-Enterprise is defined as an enterprise whose workforce is less than 10 persons and whose turnover does not exceed EUR 2 million; www.europa.eu.

⁴ “Contact authors for the list of references”.

A FRAMEWORK FOR FRUGAL INNOVATION IN MEDICAL DEVICE INDUSTRY

Arvinder P. S. Loomba, arvinder.loomba@sjsu.edu
San José State University, San José, USA.

A FRAMEWORK FOR FRUGAL INNOVATION IN MEDICAL DEVICE INDUSTRY

Abstract:

With ever-increasing globalization in the new century, the world is becoming more closely interconnected, more densely populated and more urbanized than ever before (Anderson, Cavanagh, & Lee, 2005). Plus, omnipresence of Internet across the globe is facilitating universal access to information, shaping consumer preferences and acquisitiveness, thereby affecting demand for technology, products, and services (Haferkamp & Smelser, 1992). Increased demand for products has led to increased job opportunities and higher wages, albeit this proliferation is not equitable across the globe.

An unintended drawback of globalization is that diseases and health complication are also proliferating on a global scale. Gentrification is permeating unevenly in developing countries with poorer pre-gentrification residents, who are unable to pay higher cost of living, are forced to migrate to more cost-effective geographical regions (Lees, Slater, & Wyly, 2008). These macro trends lead to increased polarization of population demographics and unintended discrimination in access to health care, among other public goods (Bardhan, 2005). As the resulting burden of disease is becoming far too severe for governments of low resource countries to bear, the criticality of addressing unmet healthcare needs of populace in the bottom of the pyramid is being brought to light.

While governments of low resource countries fail to deliver improved healthcare access to the poor, entities in developed countries often try to send medical technologies through charitable channels. However, many such well-intended efforts aimed at world's poor often prove futile. The fact remains that about 90 percent of medical devices reaching low resource countries are, in fact, hand-me-down equipment designed for use in first-world facilities (Miesen, 2013). Although, basic medical technologies, such as X-ray machines, diagnostic equipment, and incubators, are desperately needed in clinics in low resource economies, these same devices often fail few months later—or are even dead on arrival—because they are neither designed to operate in these environments nor repurposed for new working conditions. Consequently, strategies for delivering 'usable' medical devices in emerging markets need to be reconsidered with a low-resource perspective (London & Hart, 2004).

Where state agencies in low resource economies fail to deliver on the healthcare front, social enterprises and resourceful locals are making considerable inroads through 'frugal innovation' (Ahuja, 2012; Tiwari & Herstatt, 2012). The purpose of this paper is to introduce the framework of frugal innovation in healthcare and initiate a discussion of how it contrasts with other innovation types, its antecedents, its process, and its contextualization. Few case studies of frugal medical innovation low resource economies are reviewed and implications for business practitioners for institutionalizing it to develop and market viable medical goods and services for world's poor are discussed.

Keywords: Frugal Innovation, Medical Devices, Innovation Types, Framework, Case Study.

References:

- [1] Ahuja, S. (2012). *Jugaad Innovation: Think Frugal, Be Flexible, Generate Breakthrough Growth*. San Francisco, CA: Jossey-Bass.
- [2] Anderson, S., Cavanagh, J. & Lee, T. (2005). *Field Guide to the Global Economy*, 2nd edition, Washington, DC: Institute for Policy Studies.
- [3] Bardhan, P. (2005). *Globalization, Inequality and Poverty: An Overview*, Berkeley, CA: University of California.
- [4] Haferkamp, H., & Smelser, N. J. (Eds.). (1992). *Social Change and Modernity*, Berkeley, CA: University of California Press.
- [5] Lees, L., Slater, T., & Wyly, E. K. (2008). *Gentrification*. New York, NY: Routledge/Taylor & Francis Group.
- [6] London T., & Hart, S. L. (2004). Reinventing strategies for emerging markets: beyond the transnational model, *Journal of International Business Studies*, 35(5), 350-370.
- [7] Miesen, M. (2013, September 20). The Inadequacy of Donating Medical Devices to Africa, *The Atlantic*, Washington, D.C: Atlantic Media. Retrieved from <http://www.theatlantic.com/international/archive/2013/09/the-inadequacy-of-donating-medical-devices-to-africa/279855/> on March 2, 2014.
- [8] Tiwari, R. & Herstatt, C. (2012). *Frugal Innovations for the 'Unserved' Customer: An Assessment of India's Attractiveness as a Lead Market for Cost-effective Products*. Working Paper No. 69, Hamburg, Germany: Institute for Technology and Innovation Management, Hamburg University of Technology.

**Complementary and Synergistic Competencies in Technology Transfer:
A New Model of a Spin-off Creation Program**

Chiara Mazza¹, chiara.mazzi@unifi.it

Riccardo Passeri, riccardo.passeri@unifi.it

Marco Bellandi, marco.bellandi@unifi.it

University of Florence, Economics and Management Department – Florence, Italy

Complementary and Synergistic Competencies in Technology Transfer: A New Model of a Spin-off Creation Program

Abstract

Knowledge transfer aims at promoting and fostering the transformation of ideas with high innovation content emerging from university research into various innovation vehicles, among which start-ups and (university) spin-offs. One of the major obstacles that hinder the success of this type of firms is the scant level of entrepreneurial competencies possessed by the academic and technical team. Drawing from the complementary competencies perspective of the RBV theory of the firm, the present study describes the spin-off creation program implemented at the University of Florence Incubator. The purpose is to investigate how the synergistic integration of business students' managerial skills and scientific-based business projects can bridge the gap between entrepreneurship education and technology transfer within the university environment. We conclude that the joint presence of technical and managerial competencies may be favored by specific methods and must also be supported by an appropriate strategic orientation concerning the implementation of the third mission of the university.

Keywords: technology transfer, university spin-off, venture creation program, entrepreneurship education program, university incubator, complementary competencies, resource-based view, team building, university scientist, academic entrepreneurship

Introduction

Gaining a position of competitive advantage is often difficult for companies in today's complex, turbulent world. Identifying the factors that determine the improved performance of firms allows us to better exploit their specific resources and competencies and to make strategic choices that improve their ability to take advantage of future opportunities. Knowledge-based resources are among the most important determinants of institutions, business and industry performance.

Given the difficulties of established firms in bringing new technologies to the market, universities are increasingly viewed as a source for the creation of high-tech firms (O'Shea, 2005). As a result, there is a growing need for universities to develop stronger linkages and leaner channels between science, technology and utilization and serve a "third-mission" to the development of the wider social and economic community (Etzkowitz, 2002). While it is widely recognized that teaching and research are the two missions of a university through which knowledge is preserved, created, applied and disseminated, knowledge transfer is defined as its third mission and refers to the transfer and application of knowledge to the community (Unesco Workshop, 2007).

In order to significantly reduce the gap between knowledge creation and knowledge use, knowledge transfer aims at promoting and fostering the transformation of ideas with high innovation content emerging from university research into high-technology and knowledge-based innovation vehicles, among which patents, joint research laboratories and projects, research contracts, and university spin-offs. The start-up of business venture is an important channel that universities can use to transfer the knowledge generated beyond the narrow confines of the academic community itself to the economic system (Mansfield and Lee, 1996).

Unfortunately, for many institutions, efforts to make universities more entrepreneurial have not had sufficient impact. Recent findings, especially regarding Europe, suggest that many universities are not experiencing a significant increase in spin-off behavior dynamics (Wright et al., 2003). In addition, several empirical investigations show that the majority of public-research spin-offs perform rather poorly (Mustar et al., 2008). Clarysse et al. (2005) stress the fact that there is a distinction between the creation of spin-offs per se and the start-up of spin-offs that create significant wealth. From an academic standpoint, identifying and analyzing the obstacles that limit the success of this type of high-tech start-ups appears an important research topic to better understand and, where possible, leverage their potential contributions in terms of innovation and growth.

In the goal of transforming scientific knowledge and research outputs into marketable products or services, university spin-offs face both market and scientific-technological uncertainties (Fontes, 2005). As suggested by Barr et al. (2009), in order to have economic impact, technology ventures have to bridge institutional, financial and skill gaps, labeled the “valley of death”. One of the major obstacles that potentially hinder the success of university spin-offs is the scant level of entrepreneurial competencies possessed by the academic and technical team. New venture creation, and entrepreneurship in general, seems to be not readily compatible with the traditional role of the university researcher (Louis et al., 1989). Indeed, according to Lundqvist and Williams-Middleton (2013), the majority of academic scientists seem not to prioritize the dissemination of their research through business and wealth creation.

It is clear that high-tech ideas per se are not enough to set up a business. Academic research wouldn't have much effect without committed and competent persons to develop and manage new firms and new business activity (Rasmussen and Sorheim, 2006). Therefore, the success of a spin-off necessarily implies that two opposite concepts of science become closer, namely, the “scientific” conception, which considers science as an end in itself, and the “economic” conception, which considers it as a means to making money (Ndonzuau et al., 2002). Most authors claim that team building is crucial for start-ups' success, by bringing complementary competencies and knowledge together (Lundqvist, 2014). There still exists a gap in the literature, where entrepreneurial education is not included as a contributing stream of research to the field of university entrepreneurship (Olilla and Williams-Middleton, 2011).

Drawing from the complementary competencies perspective of the resource-based view theory of the firm, the aim of the paper is to fill this gap and investigate how introducing spin-off creation programs at university incubators can bridge the gap between entrepreneurship education and technology transfer within the university environment. The overall purpose of our research is to contribute to the existing debate on spin-off creation weaknesses by analyzing extant literature, and to offer an operational idea to improve universities' strategies for dealing with the challenge of academic entrepreneurship by illustrating the spin-off creation program implemented at the University of Florence Incubator (IUF).

The program is grounded on the collaboration between the IUF and the School of Economics and Management of the University of Florence. Following the most successful venture creation/entrepreneurial learning programs around the world, the spin-off creation process would benefit from the synergistic integration and transfer of complementary specialized competencies. Business students preparing for their second-level degree are appointed as surrogate entrepreneurs to develop promising early-stage technology transfer ideas, connecting their managerial skills to scientific-based projects of innovation start-ups with low organizational, marketing, and administrative skills. The core design of the program is matching business students with technology-based ideas in order to build the team.

Results show that spin-off creation programs can effectively augment the university technology transfer in developing and growing successful start-ups. Incubators, business schools and laboratories concerned with entrepreneurship and action-based education are key resources allowing university scientists to engage in venture creation. The research findings will provide a better understanding of the knowledge transfer process in education, and enable evidence-based recommendations for researchers as well as for managers and policy-makers.

The structure of the paper is as follows. In the theoretical framework section we review the relevant literature on the third mission of universities, the link between university scientists and venture creation, the RBV theoretical framework on complementary competencies, and venture creation programs. The following section illustrates the methodology. Next, an in-depth description of the IUF program is presented. The discussion relates case findings to our understanding of academic entrepreneurship through venture creation. Finally, the last section draws conclusions and presents possible implications and opportunities for future research.

Theoretical Framework

The Third Mission of Universities

The main missions of universities have long been the higher education and the universal advancement of knowledge and culture (Carayannis et al., 1998). More recently, a third mission is being considered of as increasing importance, that is the direct involvement of universities with society: the valorization of the results of academic research and

knowledge transfer for innovation (Unesco Workshop, 2007). The notion of “valorization”, “transfer”, “third stream” or “third mission” is connected with the new concept of “entrepreneurial oriented university” (Etzkowitz, 1998).

From the mid-1970s to the mid-1980s, a progressive transformation occurred as regards the nature of knowledge and the process of innovation. The main implication was that in high technology sectors, it was important for firms to develop strong connections with academic labs if they wished to be in a position to master new knowledge (Roberts, 1991). On the other part, there was a growing need for universities to disseminate the knowledge generated beyond the narrow confines of the academic community itself (Mansfield and Lee, 1996). The pursuit of the third mission goals involves a series of processes and tools aimed at transferring the products of research to the market and the society (Visintin and Pittino, 2014).

At the policy level, combining the importance of tacit dimensions in knowledge production with the heterogeneous composition of innovation networks drove to a shift in the acknowledgement of the role of universities in regional and national innovation systems. Assuming to hold important economic and social benefits, this political understanding progressively put on the agenda of all countries and universities the organization of the knowledge and technology transfer (Etzkowitz, 2003). With the Bayh-Dole Act (1980), the USA defined a landmark in the national regulation of technology transfer activities.

The increasing importance of the third mission has resulted in the enlargement of the public-private cooperation, also in the form of spin-off firms (Lerner, 2004). In practice, this capitalization of knowledge takes different forms and is sustained by an ever-growing array of policies and organizational structures including technology transfer offices, incubators, spin-off firms, science and technology parks, patenting, fiscal incentives for business angels and seed capital, policies for venture capital, and so on (Leitch and Harrison, 2005).

University Scientists and Venture Creation

Visions of research universities expanding into the third mission have added to the image that university scientists are also increasingly confronting with entrepreneurial roles (Etzkowitz, 2003). Jain et al. (2009) describe academic entrepreneurs as spanning from the “pure academic” pursuing entrepreneurial endeavors to the “hybrid individual” with both science and business qualifications.

However, Louis et al. (1989) argue that new venture creation, and entrepreneurship in general, is not readily compatible with the traditional role of the university scientist. The majority of university researchers seem not interested in championing their ideas in the market place as the entrepreneur, because they already have a career path within academia. In many cases, the university scientist’s main ambition when commercializing research is to illustrate the discovery of new knowledge in order to gain recognition within the scientific community, with financial gain as a secondary objective as a means to securing more funding for research (Lundqvist and Williams-Middleton, 2013). Lockett et al. (2003) find that the more common roles for university scientists in a venture based on their research is as senior manager, advisor, or technical director, while the role of managing director or lead entrepreneur is less common and often not encouraged by the university.

Moreover, university scientists may face barriers such as lack of knowledge or skill in recognizing and exploiting opportunities stemming from their research (Mosey and Wright, 2007). As suggested by Ndonzuau et al. (2002), the success of a spin-off necessarily implies that two opposite concepts of science become closer, namely, the “scientific” conception, which considers science as an end in itself, and the “economic” conception, which considers it more as a means to achieve other goals (in particular making money). Due to their peculiar nature, they need to properly balance scientific orientation with business orientation: scientific orientation is necessary for the process of discovery and early technology development, whereas business orientation is required for the effective commercialization of the products and services which incorporate the technology (Cetindamar et al., 2009).

In order to have economic impact, technology ventures are often seen as having to transcend different institutional, financial and skill gaps labeled the “valley of death” (Barr et al., 2009). They are archetypical cases of companies which need to effectively manage the intersection between academic research and industry in order to be successful (Etzkowitz, 1998).

Resource Based View Framework

The resource-based view (RBV) is used as a theoretical framework model from the field of strategic management for identifying the complex, intangible and dynamic resources of an enterprise and assessing its competitive advantage (Penrose, 1959; Rumelt, 1984; Wernerfelt, 1984). Following Prahalad and Hamel (1990), the real source of advantage are to be found in management's ability to consolidate corporate-wide technologies and production skills into competencies that empower individual businesses to adapt quickly to changing opportunities.

As stated by Lockett and Thompson (2004), it is the heterogeneity, not the homogeneity, of resources and competencies that give each firm its unique character. Resource-based theory claims that complementary resources and competencies may enjoy synergistic performance impact (Teece et al., 1997). Complementary competency is an enhanced resource or asset that arises when a resource produces more value in the presence of another resource than by itself.

A core issues in the field of innovation management is the synergy between the technological and non-technological elements (strategy, marketing, culture, organization, and institution) of innovation (Xu et al., 2007). Business and managerial competencies in general refer to the skills and knowledge (technical as well as cognitive) of the top management to craft a strategic vision and communicate it, problem solving and resource allocation, leadership, and competences to create and stimulate enabling environment for change, and continuous improvement through learning (Lado et al., 1992).

A combination of technological and marketing (entrepreneurial) resources and competencies are key for achieving superior performance in environments with high technological turbulence and creating a sustainable competitive advantage for innovative firms (Song et al., 2005; Wang et al., 2004). Technological-related competencies have been shown to enable firms to achieve superior performance (Pisano, 1994). Likewise, marketing-related competencies have been recognized in the innovation management literature as complementary for the appropriation of research results (Teece, 1986). A firm with strong technological competencies is capable of using scientific knowledge to promptly develop products and processes that offer new benefits and create value for customers (McEvily et al., 2004). A firm with strong marketing competencies is able to use its deep understanding of customer needs to foster development of new products and organize marketing activities that provide a unique value to consumers (Day, 1994; Vorhies, 1998).

Following theoretical arguments drawn from the RBV perspective, it has been suggested that one of the main factors that may affect growth and success of new business ventures is the quality and heterogeneity of the entrepreneurial/managerial group (Visintin and Pittino, 2014). Compared to single founders, entrepreneurial teams are more likely to possess the competencies needed to achieve a fit between technology and business (Chowdhury, 2005; Colombo and Grilli, 2010).

Venture Creation and Entrepreneurial Education Programs

As stated before, one of the major obstacles that potentially limit the success of university spin-offs is the scant level of entrepreneurial competencies possessed by the academic and technical team. An economy that allocates a large portion of its resources to R&D development without a reciprocal portion of entrepreneurial capacity cannot be said to be utilizing its designated resources in an effective manner.

Universities can contribute to entrepreneurship both directly by the commercialization of research and by being the seedbed for new ventures, and indirectly through education of candidates as future innovators and entrepreneurs (McMullan and Melnyk, 1988). According to Klofsten (2000), there are three basic complementary activities aimed at stimulating entrepreneurship that should be found at a university. First, activities to create and maintain an enterprising culture on the whole at the university, serving as an integrated part of all courses, research, and external activity. Second, the provision of separate courses in entrepreneurship to students. Third, the offer of specific training programs for individuals who wish to start their own enterprise. Issues concerning resource constraints on the development of spin-off ventures has links to a parallel debate on the role business schools can play in the development of entrepreneurship in universities (Wright et al., 2004).

Drawing from the complementary competencies perspective of the RBV, team building and networking are crucial for start-ups' success, by bringing complementary competencies and knowledge together, and helping to bridge the valley of death (Barr et al., 2009). Successful universities around the world in creating spin-offs are characterized by clear strategies towards the engagement and commitment of multiple stakeholders (both internal and

external to the university) to achieve new ventures and support the spin-offs' entrepreneurial orientation. Some universities establish or create stronger links to incubators and technology transfer office, others have integrated technology transfer activities with entrepreneurship education, still others recommend the use involvement of surrogate/external entrepreneurs (Vohora et al., 2004).

The incubators and the technology transfer offices play a key role with respect to engendering academic entrepreneurship. First, they may engineer synergistic networks between academics, venture capitalists, advisors and managers who provide the human and financial resources that are necessary to start a company. Second, they provide services such as training and tutoring in evaluating markets, writing business plans, raising venture capital, assembling venture teams and obtaining space and equipment (Etzkowitz, 2002).

One of the major challenges of university incubators is precisely that of combining entrepreneurship education and university technology transfer (Lackeus, 2013). Bringing entrepreneurial education together with incubation at the university and letting students create a venture as a part of their entrepreneurial education is proposed to be a successful way to develop entrepreneurs as well as technology transfer and to bridge the gap between inventors with ideas and the marketplace (Olilla and Williams-Middleton, 2011).

An important question underlying venture creation and entrepreneurial education programs concerns whether it is possible to help the emersion of latent entrepreneurial attitude and the learning of complementary managerial competencies through different specific educational policies and programs (Erikson 2003; Sanchez, 2013). Many argue that there is enough evidence that entrepreneurship can be taught (Kuratko, 2005). Others state that entrepreneurs are primarily born, not made (Nicolaou and Shane, 2009). Some opt for a middle way, claiming that certain aspects of entrepreneurship cannot be taught, such as self-confidence, persistence and energy levels (De Faoite et al., 2003).

On the whole, consensus among scholars is that the only way to become entrepreneurial is through direct experience (Lackeus, 2013). Related methods range from case-based teaching, to matching with real start-ups, and finally support to start a company (Erikson and Gjellan, 2003). Learning-by-doing and direct observation can be put to use in entrepreneurial education through action-based approaches, often labeled "learning through entrepreneurship" (O'Connor, 2013; Rasmussen and Sorheim, 2006).

External entrepreneurship has been suggested as a way of adding complementary entrepreneurial competencies, attracted to and integrated with early technology ventures to increase the venture creation rate and bridge the valley of death (Fontes, 2005; Vohora et al., 2004). The joint presence of academic and non-academic members is an important dimension that may enhance the integration of the "scientific" and "economic" conception of science (Beckman et al., 2007; Druilhe and Garnsey, 2004). But also students or recent graduates in management and entrepreneurship courses can play as external entrepreneurs in early-stage technology ventures (Franklin et al., 2001; Lundqvist, 2014). Since both product/technology competencies and more business oriented market and managerial competencies are important in success cases of technology ventures, such surrogacy should complement rather than replace the entrepreneurial contributes from science- and technology-based teams (Lockett and Wright, 2005).

Methodology

On the basis of the information collected through the literature review, the aim of the present study is to illustrate the venture creation/entrepreneurial education program developing at the University of Florence Incubator (Italy). The main objective of the program lies in trying to bridge the gap between entrepreneurship education and technology transfer within the university environment.

This paper is based on an in-depth analysis that may be characterized as a case study (Yin, 1994). The case study method allows for study of a phenomenon within a real-life context, when boundaries between the phenomenon and its context are blurred, and multiple sources of data are utilized. In general, case studies are the preferred strategy when "how" or "why" questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context.

Case evidence is gathered through interviews, documentation, participant observation, and archival material. Data is triangulated where possible in order to determine replicable information and falsify inconsistent information in an attempt to minimize the subjectivity of the data presented (Flick, 2006).

The IUF Spin-off Creation Program

The University of Florence aims at promoting and fostering the transformation of ideas with high innovation content emerging from university research into spin-offs and innovative start-ups. In recent years, it has established a number of tools to facilitate the link between its research facilities and external parties. To take on this challenge, at the beginning of 2010 the University of Florence Incubator (IUF) was established. It is managed by CsaVRI (Centre of academic services for the valorization of research and the management of the University Incubator), which is the central Technology Transfer Office of the University of Florence.

The IUF support or provides pre-seed and seed services: scientific/business ideas scouting, training, mentoring, tutoring, networking, fund raising, and logistic support. It has a general vocation and aims to promote the valorization of the results of research even beyond the traditional technological and biomedical fields. Access to IUF services is open to applicants inside the University of Florence, or even to external applicants if they show strong links with university research. The IUF offers its services to those intending to join a spin-off project or propose an innovative start-up, to those who want to know more about the activities of the IUF start-up businesses with a view to purchasing the patents or products developed, and to those looking for collaboration with university spin-offs.

It has been understood from the beginning of the IUF activities that one of the major obstacles that potentially hinder the success of the University of Florence high-tech spin-offs is the scant level of entrepreneurial competencies possessed by the academic and technical team. The IUF managing staff recognized the need for stimulating entrepreneurial activity and bridging the gap between inventors with research-based innovations and the marketplace; even if core of entrepreneurial attitudes cannot be taught, but only helped to emerge when already resident in academic or students bringing ideas for new business ventures.

Following the most successful venture creation programs (US and Sweden above all), the IUF has been developing a mixed venture creation/entrepreneurial learning program based on team building, by bringing complementary competencies and knowledge together. A special project enacted in such perspective has been the “IUF Spin-off Creation Program”, precisely with the aim to try to connect undergraduate business students (in the future also graduates and young researchers in management) bringing entrepreneurial and managerial skills to scientific-based projects in the pre-seed or start-up stage with the aim to manage a synergistic integration and transfer of complementary competencies. The program is grounded on the collaboration between the IUF and the School of Economics and Management of the University of Florence. Business students preparing for their second-level degree have been selected and matched with teams bringing projects of new spin-offs based on science and technology research.

In order to obtain a synergistic effect between economic-managerial competencies and technological ones three main activities have been identified and organized. Firstly, students bring within scientific-based projects organizational, marketing and administrative capabilities, in order to support the development of business models and business plans. Secondly, business students support scientific-based projects in presenting their ideas through an elevator pitch and participating at various business competitions. Lastly, they analyze and develop the economic-managerial aspects of the project as a case study for their graduation thesis.

The matching mechanism to build the team is based on a brief presentation of the students and the projects and on a further stage of job interview between the two parties under the supervision of the IUF managing staff. The formed teams are supported by educators, practitioners, coaches, investors and business advisors, collaborating to fill the needs of both student and venture.

The first test of the program started in 2011 and was managed jointly by the IUF, the Laboratory of Innovation of the University of Florence School of Economics and Management, and the main association representing industrial companies of Florence (Confindustria Firenze). The pilot project was organized as a three months intensive program. The final goal was to present the technology-based projects pre-incubated in the IUF as real business opportunities

through an elevator pitch developed in the entrepreneurial subjects by the student to an audience of business angels associated to Confindustria.

After the first and the second edition of the program there was a follow-up phase dedicated to highlight the results obtained. Thanks to the support of 45 business students, 40 ideas were presented to the business competition, 3 were financed by business angels, 3 students were employed in the start-ups and 1 became shareholder.

Overall, in the short run, the program has been a good opportunity both for business students and academic inventors. Business students have had the opportunity to train their managerial and entrepreneurial skills on a real business case and to get involved in the spin-off as manager or as a co-founder being part of the entrepreneurial team. Academic inventors have had the opportunity to develop the economic and commercial side of their projects and to test their sustainability and competitiveness. In the long run, the synergistic integration and transfer of specialized complementary competencies fosters a virtuous circle of knowledge and technology transfer which helps the start-up of successful spin-offs.

Future implementations of the program will allow students to work voluntarily under a contractually secured incentive which stipulates how they will become shareholders if the venture is successful. The work for equity model allows spin-off to reduce their financial requirement for professional services in the start-up stage and to undertake a useful professional collaboration. The IUF management team experience suggests that becoming co-founders is for students and technical team the best way to share their competencies and obtain successful synergies.

Discussion

In 2008, the European Commission remarked that the teaching of entrepreneurship was not yet sufficiently integrated in higher education institutions' curricula and that far too little of existing entrepreneurship education efforts targeted students engaged in technical and scientific studies. The IUF spin-off creation program confirms the importance of entrepreneurship centers and incubators at universities. It illustrates venture ideas emerging from university engaging a much larger network and resource base, and extending beyond the border of the university. Furthermore, as suggested by Glassman et al. (2003), it confirms a view of universities acting as "gateways" for innovations, thus deviating from an "ivory tower image".

Combining business students and research-based ideas as a strategy for entrepreneurship education and technology transfer might be a daunting task, but if carried out successfully, several objectives are obtained. First, this approach leads to a further development of ideas that otherwise might have been neglected. Second, students who wish to start their own company get access to better ideas than they would normally come up with themselves. Third, it offers action-based entrepreneurial learning to business students and gives the students training in developing high-growth businesses. Finally, this approach may lead to cross the valley of death and to establish successful and long-lived spin-offs.

The primary goal of the program is not to turn the greatest number of students into entrepreneurs (Boyd and Vozikis, 1994). It is, instead, to get students to understand that entrepreneurship is an option for them and to increase their confidence and self-efficacy in regard to making this career choice (Chen et al., 1998).

The IUF management team has worked from a basic theoretical perspective largely consistent with the five critical factors described by Van Burg et al. (2008) in their science-based design approach to creating university spin-offs as a framework for crossing the valley of death. Two framework factors include the development of university awareness of entrepreneurial opportunities and the creation of a university-level culture to motivate and reward entrepreneurial behaviors. A third major factor is that the mix of technology knowledge and venturing skills (marketing, financial, intellectual property) must be provided through coaching and training. A fourth factor is the development of a collaborative network of mentors, advisors, managers and investors. The program violates only the last factor, which suggests that spin-off processes should be separated from academic research and teaching.

Moreover, following the framework suggested by Lackeus (2013), the IUF program helps bridging the gap between entrepreneurial education and technology transfer hinging on five pillars. First, it offers action-based learning, giving students the opportunity to interact with technical and entrepreneurial environment motivated by value creation. Second, the program fosters team building, fostering interdisciplinary and complementary competencies. Third, the

educational process includes networking events such as elevator pitch competitions to boost the technology transfer process. Fourth, the teams are supported by the incubator network, working together to fill the needs of both student and research-based ideas. Finally, the program is strictly connected with the local business context.

Conclusions

Our study has explored changes in the role of the university scientist towards academic entrepreneurship through venture creation, while adding to the understanding of the influence of university initiatives towards knowledge and technology transfer. Previous research had positioned venture creation as the type of academic entrepreneurship least compatible with a traditional role of the university scientist. The IUF spin-off creation program, a mixed venture creation/entrepreneurial learning program based on the complementary competencies perspective of the RBV framework and on team building, contributes to a more collaborative perspective on venture creation, in which university scientists play multiple and compatible roles, but not necessarily have an exclusive responsibility in leading the spin-off.

The article contributes to extant research showing that venture creation can be more compatible with the role of the university scientist due to an organized collective entrepreneurial activity at universities. Involving students together with scientists in venture creation is proposed as one important line within this perspective.

Our research has some implications for theory, practice and policy makers. On the theoretical side, it suggests that university spin-offs, due to their peculiar nature, need to properly balance their scientific and business orientations. It also contributes to the general literature on entrepreneurial teams in new ventures, and suggests a way to reconcile some inconsistent results of the literature on demographic homogeneity/heterogeneity and company performance. Core competencies are an asset growing from collective learning in a firm; the same is for university spin-offs aiming at achieving performance superior to the competitors in turbulent environments which must feature a harmonious and dynamic combination of marketing, technological, and integrative competencies.

Concerning the implications for academic management, our research supports the vision of universities' increasingly important roles in entrepreneurship and economic development, and in encouraging the provision to students of the skills they need to create and lead technology-rich entrepreneurial ventures. In the design and implementation of their scouting, coaching and consulting activities, the managers of university knowledge transfer offices should spread and promote some key messages among the potential academic entrepreneurs. First of all, academic founders should recognize the need to include people with business and commercial expertise in the team in order to develop the business model and to create the business plan. Then, non-academic members should be selected among those who exhibit entrepreneurial and managerial competencies, in order to promote an effective integration and synergistic knowledge exchange. The managerial implications are in the confirmation that university spin-offs should be encouraged from the beginning of their entrepreneurial path, to incorporate all the major constituents of core competencies into value creation and focus on the dynamics of competence development as a whole.

Finally, policy makers and university governance players are asked to intensify their activities to implement educational, research and resource programs, in the challenge to enable a culture of academic entrepreneurship to emerge within universities. This study has revealed intriguing aspects related to the importance of local networks when setting up an action-based entrepreneurship program.

The current research is of course limited to a single case study thus leaving open many questions. Future research will have to verify the real results obtained in the long run by the spin-offs who have benefitted from the IUF venture creation program. Another future research challenge is to compare similar programs around the world, from both the performance and the value creation standpoint.

References**

- [1] Barr, S. H., Baker, T., Markham, S. K., & Kingon, A. I. (2009). Bridging the valley of death: Lessons learned from 14 years of commercialization of technology education. *Academy of Management Learning & Education*, 8(3), 370-388.
- [2] Beckman, C. M., Burton, M. D., & O'Reilly, C. (2007). Early teams: The impact of team demography on VC financing and going public. *Journal of Business Venturing*, 22(2), 147-173.
- [3] Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18(4), 63-77.
- [4] Carayannis, E. G., Rogers, E. M., Kurihara, K., & Allbritton, M. M. (1998). High technology spinoffs from government R&D laboratories and research universities. *Technovation*, 18(1), 2-11.
- [5] Cetindamar, D., Phaal, R. & Probert, D. (2009). Understanding technology management as a dynamic capability: A framework for technology management activities. *Technovation*, 29(4), 237-246.
- [6] Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4), 295-316.
- [7] Chowdhury, S. (2005). Demographic diversity for building an effective entrepreneurial team: Is it important? *Journal of Business Venturing*, 20(6), 727-746.
- [8] Clarysse, B., Wright, M., Lockett, A., van de Velde, E., & Lockett, A. (2004). Spinning out new ventures: A typology of incubation strategies from European research institutions. *Journal of Business Venturing*, 20(2), 183-216.
- [9] Colombo, M. G., & Grilli, L. (2010). On growth drivers of high-tech start-ups: Exploring the role of founders' human capital and venture capital. *Journal of Business Venturing*, 25(6), 610-626.
- [10] Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 58(4), 37-52.
- [11] De Faoite, D., Henry, C., Johnston, K., & Van Der Sijde, P. (2003). Education and training for entrepreneurs: A consideration of initiatives in Ireland and The Netherlands. *Education+Training*, 45(8/9), 430-438.
- [12] Druilhe, C., & Garnsey, E. (2004). Do academic spin-outs differ and does it matter? *Journal of Technology Transfer*, 29(3-4), 269-285.
- [13] Erikson, T. (2003). Towards a taxonomy of entrepreneurial learning experiences among potential entrepreneurs. *Journal of Small Business and Enterprise Development*, 10(1), 106-112.
- [14] Erikson, T., & Gjellan, A. (2003). Training programmes as incubators. *Journal of European Industrial Training* 27(1), 36-40.
- [15] Etzkowitz, H., (1998). The norms of entrepreneurial science: Cognitive effects of the new university-industry linkages. *Research Policy*, 27(8), 823-833.
- [16] Etzkowitz, H. (2002). Incubation of incubators: innovation as a triple helix of university-industry-government networks. *Science and Public Policy*, 29(2), 115-128.
- [17] Etzkowitz, H. (2003). Research groups as "quasi-firms": The invention of the entrepreneurial university. *Research Policy*, 32(1), 109-121.
- [18] Etzkowitz, H., Webster, A., Gebhardt, C., & Terra, B. R. C. (2000). The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm. *Research Policy* 29(2), 313-330.
- [19] Flick, U. (2006). *An introduction to qualitative research*. London: Sage Publications.
- [20] Fontes, M. (2005). The process of transformation of scientific and technological knowledge into economic value conducted by biotechnology spin-offs. *Technovation*, 25(4), 339-347.

END NOTE

¹ Corresponding author. Chiara Mazzi is at University of Florence, Economics and Management Department.
Via delle Pandette 9, Building D6 - 50127, Florence (Italy)
E-mail: chiara.mazzi@unifi.it
Mobile: +39.339.2345635

** Contact the authors for the full list of references.

SEGMENTING, TARGETING AND POSITIONING OF MOBILE PAYMENT SERVICES

Raluca-Andreea Wurster

PhD Student at Polytechnic University of Bucharest, Romania and
Lecturer in International Management at FOM, University of Applied Sciences
Essen, Germany
andreeawurster@hotmail.com

Cezar Scarlat

Professor at Polytechnic University of Bucharest, Romania,
Director, Doctoral School of Entrepreneurship, Business Engineering and
Management
Bucharest, Romania
cezarscarlat@yahoo.com

SEGMENTING, TARGETING AND POSITIONING OF MOBILE PAYMENT SERVICES

Abstract

New technology companies only maintain a leading role, if their innovations are adopted by a majority of consumers. Due to an increasing mobility of today's society and progress in technological infrastructure, the mobile phone technology has been quickly adopted worldwide. The technological advances in the field of near-field contactless communications and the development of sophisticated mobile applications have enabled mobile phones to become a potential means of payment.

As part of its business strategy and strategic management process, a technology firm has to develop a strategic marketing plan (strategic marketing plan process) which includes: Segmentation, Targeting, Positioning (STP paradigm) – in this very order.

The purpose of this paper is to suggest strategic management recommendations for STP the mobile payment services (MPS) – based on drivers and barriers of MPS adoption that were identified both in literature review and empirical research related to MPS. Hence, the managerial implications of this study: to help managers to improve their longer run decisions and keep them focused on the launch of a new payment product.

Introduction and Definition of Mobile Payment Services

Successful companies in the technological field only maintain a leading role, if their innovations are adopted by a majority of consumers. Due to an increasing mobility of today's society and progress in technological infrastructure, the mobile phone technology has been quickly adopted worldwide. The technological advances in the field of near-field contactless communications (NFC) and the development of sophisticated mobile applications have enabled mobile phones to become a potential means of payment.

The notion of Mobile Payment Services (MPS) refers to making payments for goods, services and bills authorized, that are initiated and realized by using mobile devices independent from a bank website connection (Schierz *et al.*, 2009). The transaction can either be remote (SMS-based for instance) or processed locally via contactless technologies such as Near Field Communication (NFC). Overall, according to a study from Arthur D. Little (2012) so-called "mobile payments" represented a transaction volume of \$250 billion in 2012. Based on new technologies, MPS are currently diversifying. However, they have so far developed slowly, except in a few countries. In developing countries, where mobile telephony is also widely adopted, mobile payments are seen by the governments as an opportunity to improve access to banking services for the unbanked population. The launch of the M-Pesa service by Vodafone in Kenya, which reached a total of 7.5 million subscribers in 2009, has also generated hopes to reduce financial exclusion in these countries (Bourreau and Verdier, 2014). As Venkataraman (2008) shows, not all mobile payment implementations are successful: one of the reasons behind the slower growth is a lack of suitable guidance or planning for a successful mobile payment adoption; he addressed this issue - from both technical and business perspective - by proposing a reference framework (roadmap) for mobile payment implementation. However, a close analysis of these cases reveals that success stories cannot be easily generalized and demonstrates that several ingredients are needed for Mobile Payments to succeed (Bourreau and Verdier, 2014).

Research Objective

At the heart of the management problem lays the question how could the involved companies make sure that the newly launched payment products will subsequently lead to new and to steady income streams.

The authors will start by presenting the main criteria for consumers to adopt or to reject Mobile Payment Services. The objective of this article is to suggest strategic management recommendations that follow the beaten path of the Segmenting-Targeting and Positioning (STP Paradigm) and are based on drivers and barriers of MPS adoption that were identified in empirical research related to MPS.

Drivers and barriers of Mobile Payment Services' consumer adoption

Mobile Payment Services (MPS) is a dynamic and growing market segment, regarded as strategic business field (Bauer, 2012) and thus, potential providers and retailers aim for a competitive advantage if they start offering MPS to their consumers. The overall aim is to position the services from the consumer perspective to ideally realize a strong position in the market (Abell, 1980, 1999) as reflected in the Market-Based View (MBV). In this logic the value proposition of the product is a result of how an innovation is accepted by the consumers in comparison to comparable products from the competitors (Day, Montgomery, 1999).

Pousttchi and Hufenbach (2013) proposed a mobile payment reference model that provides not only theory background but it is also a tool for marketing research – to be used for data collection and customer preferences analysis. “Discovering preferences transparently means that the marketer learns the customer needs without actually involving them. When marketers learn customer preferences collaboratively, they engage in a dialogue to help customers to articulate their needs and identify how to meet those needs.” (Kahn, 2000, p. 14)

With the aim to identify the drivers and barriers of MPS consumer acceptance and adoption, the author selected empirical explorations, each with a different focus, but all contributing with unique insights. The meta-study by Tornatzky and Klein (1982) on innovation adoption provides a fundamental understanding of influential variables of the intention to use innovations in general. The study by Schierz et al. (2009) explored acceptance determinants of MPS. Mallat (2006) identified MPS drivers and barriers of consumer adoption and together with Tuunainen (Mallat and Tuunainen, 2009) barriers of merchant adoption. Yang *et al.*'s (2012) exploration conducted among Chinese and Americans is not limited to the “intention to use” but includes results from the post-adoption stage of MPS usage. Research results of consumer acceptance in e-commerce (Pavlou, 2003) and m-commerce (San-Martin and Lopez-Catalan, 2012; also see Bauer, 2012) have been incorporated to examine the role of trust for adoption.

Based on the Technology Acceptance Model (TAM) by Davis (1985; 1989) and the Innovation Diffusion Theory (IDT) by Rogers (1983) and with the scope to determine drivers and barriers across opposite cultures, the authors of this article developed an own research model (Wurster, 2013) and conducted a qualitative study among German, Romanian and Chinese Bachelor students aged between 21 and 24 years (Figure 1).

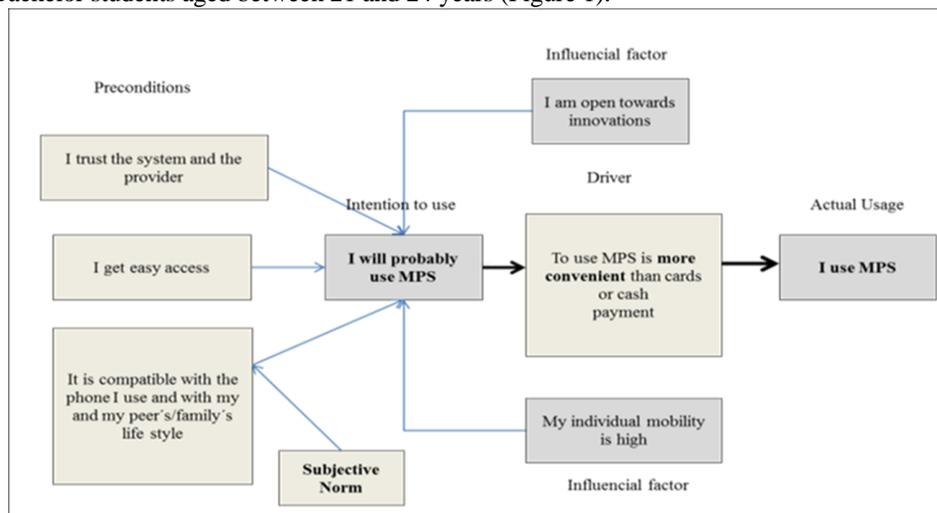


FIG.1: RESEARCH MODEL (WURSTER, 2013)

All participants in the study were born during the internet and mobile communication area and without any fears of using technology in their daily lives. Most of the students still lived with their parents or shared their apartment with other students. While the Chinese were technologically the best equipped with the latest Apple iPhone and Tablet PC and Lenovo computer and had the highest income available of all students (the majority had a budget available of 1000-

2000 €/month), half of the Romanian students not even possessed a smart phone and the majority had to exist on a monthly budget of 500 €. The German students all possessed a smartphone, either an iPhone or a Samsung and had an lived on an average budget of 1000€.

Common behavioral variables were a high degree of mobility in life and the predisposition to be open towards innovations; however, the majority was hesitating being the first to try innovations (“I would only try new technology after others tried it first and approved it.”). A remarkable insight was that the majority of the Chinese believed that money led to a happy and a satisfied life, while for most German and Romanian students money was “important, but not essential for happiness”. The Chinese were also very conscious to avoid debts. The majority did not possess a credit card as it would possibly lead to making debts. The majority of the Chinese used the cash disposal machine only once a month. Germans did not have an issue with making debts or using credit cards. Romanians preferred cash, except for e-commerce purchases and for the booking of hotels and flights.

The majority preferred stationary shopping to online shopping, except for very few male students. If they went online for purchases, all students preferred to use a computer and a W-LAN access at home as it was perceived as safer and more convenient than m-commerce via mobile device.

Convenience was very important to all interviewees. The main benefit and reason for using the latest technology is convenience as it “makes life easier”. Other reasons are “status” and higher acceptance within the peer group. As could be seen in the clear preference for the brand Apple, for the Chinese students, “conformity” might still play a role and might possibly root in decades of communism. The authors came to the conclusion, that following variables are driving MPS acceptance and adoption, which was also confirmed by previous research:

- Trust into the system and the provider(s) (Pavlou, 2002; Mallat, 2006; Mallat and Tuunainen, 2009; San-Martin and Lopez-Catalan, 2012; Bauer 2012; Fingerhut, 2014, Wurster, 2013).
- Compatibility of the system (Tornatzky and Klein, 1982; Mallat, 2006)
- Accessibility to the system (Wurster, 2013; Fingerhut, 2014)
- Convenience (Wurster, 2013)

While the first three variables (trust, compatibility and accessibility) became pre-conditions in the ongoing worldwide adoption process of this payment method, the providers of MPS can deliver a real benefit to potential consumers by offering *more convenience than* alternative payment options (Wurster, 2013) or “*value added services*” (Fingerhut, 2014). According to the primary qualitative research conducted by the authors, MPS was perceived as “convenient alternative” to pay, especially vs. cash money; thus, the relevant competitive reference should not be debit or credit card payment, but cash payment; another important insight was that “convenience” means *fastness and simplicity* of the financial transaction via mobile phone.

The primary research also confirmed what has been identified as individual influence factors for MPS adoption by previous researchers (Yang *et al.*, 2012; Schierz *et al.*, 2009) as

- Individual mobility
- A positive attitude towards technological innovations
- Experience with technology usage in daily life
- Subjective norm, as for example, the consumer’s attitude towards money and banking and opinions of his/her family, peer group and social net community
- Personal risk or control perception

Identified barriers of MPS consumer adoption are

- The absence of trust into security dimensions of a payment system. Most authors and researchers agree upon the dominant role of security issues for the acceptance of online and mobile payment services (Pavlou and Chai 2003; Bauer, 2012; Wurster, 2013; Fingerhut, 2014).
- Complexity as the opposite of convenience (or simplicity), but in the sense of too many different procedures to accomplish the payments on POS and long lasting registration procedures (GfK, 2011; Ondrus and Pigneur, 2009; Wurster, 2013).
- All factors that hinder merchants to adopt mobile payment systems and thus, prevent from making the services accessible for the consumer (Mallat and Tuunainen)

Strategic management options for Segmenting, Targeting and Positioning MPS

As a framework to strategically positioning MPS, the authors chose the Segmenting-Targeting-Positioning Paradigm as it plays a central role within the Market Based View (MBV), which is the Strategic Management stream that is focusing on consumer needs and acceptance within a certain competitive surrounding (Figure 2, Figure 3).

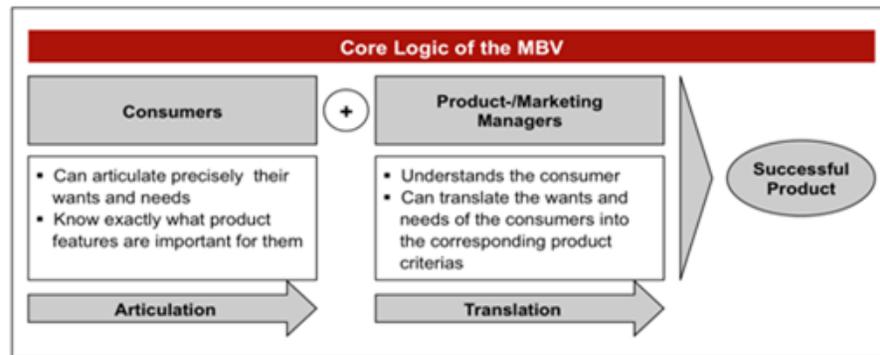


FIG. 2: CORE LOGIC OF THE MBV

Of all established strategic management streams, the Market-Based View (MBV) plays a pivotal role for the launch of a new payment product. As the name of this view already implies the market-based considerations are at its core and it thus correspond highly with the Marketing concept. The rationale behind the MBV is that - based on an intelligent definition of the relevant market – an attractive market segment will be identified which in turn will be secured and developed by an adequate positioning strategy (Kotler, 1989, 1997). The overall aim is to position the products and services as idiosyncratic as possible from the consumer perspective to ideally realize a strong position in the market (Abell, 1980, 1999).

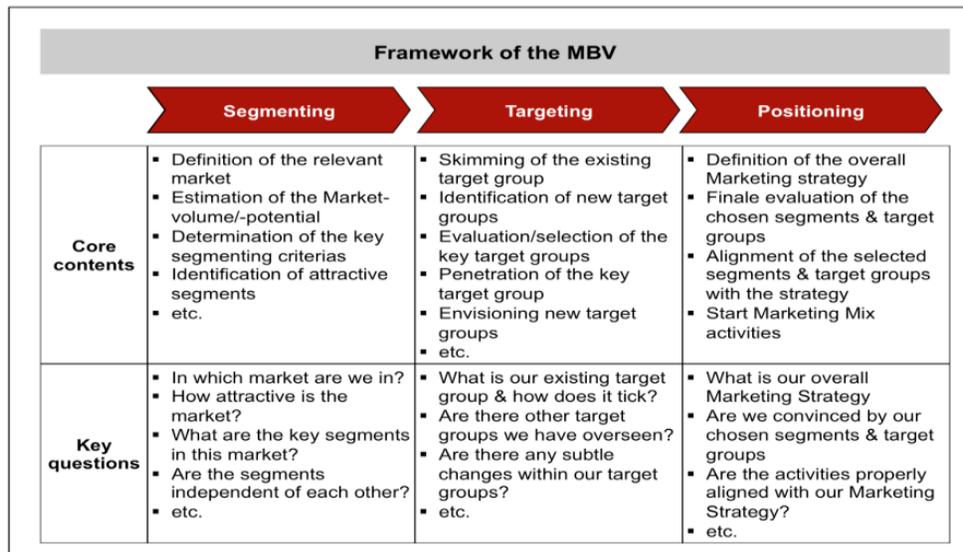


FIG.3: FRAMEWORK OF THE MBV

Segmenting and targeting

“Market segmentation is concerned with a classification of customers and consumption and when enacted, market segmentation usually turns to or is based upon the relationships, which follows” (American Association of Marketing, 2014); it is a creative and iterative process to satisfy customer needs more closely and, in doing so, to deliver sustainable competitive advantage for the company (MacDonald, 2012).

Taking the discussion to a strategic and tactical level, the idea of a strategic window as outcome of the market segmentation efforts gives companies the opportunity to increase their profits and allow them as new competitors to challenge and attack traditional market leaders (Abell, 1978). However, this strategic window is reduced to limited periods when the key requirements of a market and the particular competencies of a company competing in the market are at an optimum (Proctor, 2000). On the tactical side this means, until competitors copy a firm’s segmentation routine, the firm has a competitive edge; if the product or service is specific to the segment then this competitive advantage is multiplied (McBurnie, Clutterbuck, 1988).

Although segmenting is perceived on the theoretical level as an “objective” and straightforward activity one has to point that there is an array of issues and challenges when it comes down to successfully implement the identified and selected segments. Indeed many concepts and approaches do exist to segment a market but when it comes down to identify the key criteria’s like measurability, accessibility, the strength of the segment as such and last but not least the non-interference within the segments especially in terms of buying behavior, the scope of the differentiating variables are considerably reduced.

The identification and selection of the differentiating variables is further complicated as their preferences keep on changing at a much faster rate and that the behavior of the consumer is increasingly difficult to predict since it is getting more and more hybrid meaning that the consumer cannot be associated with one segment but rather with many. As a result of fast changing markets and a consumer behavior which is enormously difficult to predict the non-interference within the different segments can be hardly granted which in turn questions the overall segmentation of the company. Due to the increased turbulence of the environment the companies are literally forced to question themselves in terms of their key target segments like: Are our segments properly aligned with our strategy or are they contrary? Since the consumer behavior does not take into account artificial the segments the company has defined in the light of an adjusted strategy due to new trends in its environment. Most researchers (e.g. Schierz *et al.* 2009, Mallat, 2006, Mallat and Tuunainen, 2008, Yang *et al.*, 2012) suggested that companies should specifically target and position their MPS solutions to well suit individual behavioral patterns and prior experience.

There is a variety of research upon dividing the mobile communication market into different target groups. Yang *et al.* (2012) suggest segmenting the potential users according to their personal traits, especially to their degree of pre-disposition to adopt innovations and to their degree of individual mobility (Yang *et al.*, 2012).

Schierz *et al.* (2009) found out, that it is crucial to identify the early adopters of MPS as they are likely to adopt innovations first (Schierz *et al.*, 2009, p. 215). The positive influence of the early adopters has its origin in the IDT construct (Rogers, 1983) and has been positively confirmed by the qualitative study conducted by the authors: those who describe themselves as early adopters of technological innovations are all willing to try MPS.

Nearly every adult owns a mobile phone and carries it with him; however, this would imply to be owner of a smart phone, which accounts for 25% of the worldwide population and approx. 40% of the German population. Those who possess a smart phone and go online with their mobile phone on a daily basis are much more likely to use mobile payment services in the future than those whose use the internet less frequently (Kreimer, Rodenkirchen, 2010).

Therefore, a valid segmentation option would be to take the mobile internet usage behavior of consumers as a basis, as for instance done in the Austrian Mobile Communication Report 2013 (MCR, 2013). Although Austria is a small country, its location between East and West Europe is ideal to integrate insights from both, Western and Eastern European consumers as well. The MCR research revealed three target groups, Digital Natives (36%), Digital Immigrants (52%) and Digital Outsiders (12%).

Consumers who cannot reject a certain addiction to their mobile phone belong to the “Digital Natives” who have been brought up with mobile phones and the internet and account for 36% of the sample. Their usage rate of mobile web services is 96%. For these people, the mobile phone is essential for their communication, even for online

purchase, they prefer using a mobile phone. This was relevant for the majority of the *male* Chinese and German students, interviewed by the authors.

The “Digital Immigrants” include a wide age range and are regular users of mobile web services (76% usage rate), but their usage is selective and goal-oriented. Their hesitation is grounded in “security and data protection” issues they have with web services their education level and income is the highest of all three target groups (MCR, 2013). The majority of the Chinese and Romanian students interviewed by the authors would be related to this target group denomination.

The “Digital Outsiders” are the ones with most skepticism. Their mobile internet usage rate is only at 8%; 34% of them are older than 50 years and the majority of them (81%) have only discovered the web during the last two years. The majority of the “Digital Outsiders” rejects using the mobile phone for other communication activities than to make calls because the display seems to small for them which reduces the convenience and they are technically too poorly skilled to go online with their phone, even if is a smart phone (MCR, 2013).

Gender-segmentation, age-related or segmentation according to the individual risk disposition of consumers would be additional feasible segmentation strategies for MPS. Men (78%) and consumers younger than 30 years (89%) are the heavy users of mobile Web services. A large percentage as 88% use the mobile phone to gather information about products and services and their benefits or to search for certain brands and offers. The reason for the high attractiveness of these consumers is that they go online on a daily basis and rather have trust in mobile payments than those who go online less frequently. Dividing the potential users in risk-averse and risk-friendly users and targeting them individually as Mallat suggested would be an alternative variant (2006). 30% of the mobile shoppers think that payments in mobile commerce are not secure enough (MCR, 2013; Francis *et al.*, 2010). 56% that have downloaded an App from an App store, pay attention to which features the App has possibly access on.

Especially in payments, MPS providers need to make sure to increase transparency and information for those users who are risk-averse with special programs individually targeted to them with the aim to make them overcome their fears (MCR, 2013).

One possibility to increase the efficiency of the targeting activities considerably is the implementation and deployment of Customer-Relationship-Software-Tools since one of the central value these systems have for companies is that all customer data is centralized and that new target groups can much more easily identified when customer behavior patterns are at the basis of the analysis (Sheth, Sisodia, 1999).

Positioning of MPS

What does successful positioning in the MPS market imply? Those providers of MPS will succeed that offer customers the highest degree of convenience and value-perception.

Companies that opt to engage in MPS should fulfill their promises, exhibit an ethical behavior and inform the audience, taking into account individual user needs and preferences of their target groups, in order to achieve trust (San-Martin and Lopez-Catalan, 2012). PayPal demonstrates that strategies built on trust are successful in the long-run.

Confidentiality, data integrity, authentication and non-repudiation are the most important requirements for e-commerce and mobile payment transactions to build trust among risk-averse consumers (Dahlberg *et al.*, 2007; Mallat, 2006). Other aspects that are significant for trust-building are anonymity and privacy, which consumers rather associate with banks than with telecom providers (Kreimer and Rodenkirchen, 2010). Practical implications would be to offer following benefits and communicate them to the relevant target group:

- security aspects in software and hardware
- technical security standards at technical construction of the service
- insurances covering possible losses
- reliability as brand benefit in the communication strategy

Influences from friends and social networks have to be considered as critical, especially in the pre-adoption stage, but “this is especially the case among highly collective-culture countries as China, where individuals are more easily influenced by other’s opinions than those, living in the low collective-culture countries as USA, Great Britain, Australia etc” (Yang *et al.* 2012, p. 137).

Recent attempts of mobile service providers to promote special fares and flat rates targeted at “Digital Natives” by asking their friends to participate and installing a bonus system for new contracts (“Friends gain Friends” by Base/Eplus) are going into this direction.

MPS providers can positively influence the consumer perception:

- by improving the conditions for retailers to perceive MPS as attractive enough to adopt it and
- Showing in their communication executions different situations for MPS usage to influence the value perception of MPS being more convenient and adding value than alternative payments
- Reducing the payments to maximum €50 spending per buy.

Ideally MPS providers adopt to consumer’s needs and offer NFC technology in places where time is a critical factor, as for example in airports, train stations or bus/tram stops, taxi-cabs, but also in staff canteens or in public libraries, university cafeterias etc. But time saving also implies the expectation, that the payment process is as short as possible. Consumers are not willing to queue up longer in supermarkets, if the mobile payment procedure takes longer than card payment would take.

Thus, for successful mass-marketing of MPS, providers would need to develop advertising to emphasize the value of MPS service vs. cash payments. They should communicate the benefit “convenience” by demonstrating how compatible the method is with daily life situations, if MPS are accessible everywhere, where the consumer is, independent from a bank branch or cash disposal. Service providers need to extend their services and offer, apart from convenient and fast payment, saving tickets, price comparisons or search functions to find the closest shop with the lowest price for instance (Fingerhut, 2014).

To reject negative perceptions service providers would need to

- design various assurance procedures
- “Easy to understand “ design of the verification process during an NFC transaction
- offer a long term user preferential plan
- provide a packaging cost scheme

San-Martin and Lopez-Catalan (2012) questioned, whether it would prove beneficial for mobile service providers to encourage impulse buying via promotions etc. since they found out, that

- it may reduce satisfaction
- it may lead to a greater number of complaints, refunds and returns
- it probably sparks negative word-of-mouth concerning the provider and regarding m-commerce as a whole.

In the post adoption-stage, the factor “satisfaction” with MPS might play a more dominant role for consumers and on the provider’s side, the ability of the providers to cope with system errors (Yang *et al.*, 2012). However, MPS providers should not be over-enthusiastic as only a minority of the Bachelor students that were interviewed by the authors believed that MPS would entirely replace the existing payment methods, but rather that it will become one of the ways to pay in a few years.

Conclusions

With regards to the overall objective to derive management recommendations from empirical research on MPS acceptance and adoption, the theoretical research streams and the empirical research were able to give fruitful insights.

If one analyzes the success of disruptive technologies and applications, these main parameters have to be seamlessly working together: A reliable technology behind the product, transparent communication, data security measures and a high acceptance rate of retailers.

If MPS providers and retailers start to create the preconditions for usage intention i.e. wide access and compatibility – most preferably in offering the most convenient and secure solution – the mobile payment method could receive more attention. But, it needs a clear positioning, a transparent information policy by banks and credit card companies and more intense sales activities by the respective technology providers to convince consumers and retailers that this technology is worth investing as it will help them increase the retailer’s sales significantly and build long-term consumer relations.

However, it is almost a fact that only a smaller group of dominant platforms and technologies will emerge from the array of confusing standards competing in the market today – an ecosystem of players who are all building trust and can plausibly explain that their services offer more convenience than conventional payment methods will demonstrate enough value to consumers to replace cash payment in the long term.

References

- [1] Abell, D. F. (1980) *Defining the Business*. New York: Prentice-Hall
- [2] Abell, D. F. (1999) Competing today while preparing for tomorrow. *Sloan Management Review*, 40(3), 73-81
- [3] American Marketing Association (2014) Market Segmentation. Retrieved March 2014 from <http://www.ama.org/definitionofmarketsegmentation.aspx>.
- [4] Bauer, A. (2012) *Vertrauen in Mobile Payment Dienste*. E-book
- [5] Bourreau, M. and Verdier, M. (2014) "Cooperation Models for the Development of Mobile Payment Solutions". Retrieved January 2014 from <http://www.pymnts.com/journal-bak/lydian-payments-journal-2010/cooperation-models-for-the-development-of-mobile-payment-solutions>.
- [6] Dahlberg, T., Mallat, N., Ondrus, J., Zmijewska, A. (2007) Past present and future of mobile payment research: A literature review. *Electronic Commerce Research and Applications*, 7(2), pp. 165-181.
- [7] Davis, F. (1985) A technology acceptance model for empirically testing new end-user information systems – theory and results. PhD thesis, Massachusetts Institute of Technology (MIT).
- [8] Davis, F. (1989) Perceived Usefulness, perceived ease of use and user acceptance of information technology. *Management in Science Quarterly*, 13 (3), 319-340.
- [9] Day, G. S. and Montgomery, D. B. (1999) Charting new directions for marketing. *Journal of Marketing*, 63 (Special Issue), 3-13.
- [10] Fingerhut, C. /ECC Köln (2014) „Handy statt Geldbeutel und Schlüssel? – ECC Köln und goetzpartners untersuchen die Anforderungen deutscher Konsumenten an Mobile Wallets. Retrieved January 2014 from <http://www.ecckoeln.de/News/Handy-statt-Geldbeutel-und-Schl%3%BCssel%3F-%E2%80%93-ECC-K%3%B6ln-und-goetzpartners-untersuchen-die-Anforderungen-deutscher-Konsumenten-an-Mobile-Wallets>.
- [11] Francis, L., Hancke, G., Mayes, K., Markantonakis, K. (2010) On the security issues of NFC enabled mobile phones. *International Journal of Internet Technology and Secured Transactions*, 2(3/4), 336-356.
- [12] Gatignon H. and Robertson T. S. (1985) A propositional inventory for new diffusion research. *Journal of Consumer Research*, 11, 849-867.
- [13] Gerpott, T. J., Kornmeier, K. (2009) Determinants of customer acceptance of mobile payment systems. *International Journal of Electronic Finance*, 3(1), 1-30.
- [14] GfK (2011) *Mobile Payments: The importance of trust and familiarity and the need for co-operation*. Global report 2011 Retrieved March 2014 from http://www.gfk.com/group/press_information/press_releases/007888/index.en.html
- [15] Kahn, B. (2000) Turn your customers into advocates. *Financial Times Mastering Management*, Part Two, 9 Oct 2000, 14-15.
- [16] Kornmeier, K. (2009) *Determinanten der Endkundenakzeptanz mobil-kommunikationsbasierter Zahlungssysteme – eine theoretische und empirische Analyse – Dissertation*, University Duisburg-Essen.
- [17] Kotler, P. (1989) *Marketing-Management: Analyse, Planung und Kontrolle*, 4th ed. Stuttgart: Poeschel.
- [18] Kotler, P. (1997) *Marketing Management, Analysis, Planning, Implementation and Control*, 9th ed. New York: Prentice Hall.
- [19] Kreimer, T. and Rodenkirchen S. (2010). *Mobile Payment – Umfrage des E-Commerce Center im Auftrag von KPMG – Anforderungen, Barrieren, Chancen*.
- [20] Little, A.D. (2012) *Global m-payments report (update of the report from 2009)*. Retrieved October 2013 from <http://adlittle.com/reports.html?view>
- [21] Mallat, N. (2006) Exploring Consumer Adoption of Mobile Payments – a qualitative study. *Journal of Strategic Information Systems*. 16 (4), 413-432.
- [22] Mallat, N. and Tuunainen, V. K. (2008) Exploring merchant adoption of mobile payment systems, Indiana University Press, Indiana University, *E-Service Journal*, Vol. 6, No.2, winter 2008, 24-57.
- [23] McBurnie, T. and Clutterbuck, D. (1988) *The Marketing Edge*. London: Penguin Books.
- [24] MCR. (2013) *Mobile Communications Report Austria 2013*. Retrieved February 2014 from <http://www.mmaustria.at/news-press/data3571>.

- [25] Ondrus, J. and Pigneur, Y. (2009) Near Field Communication: An assessment for future payment systems, *Information Systems and E-Business Management*, June 2009, Vol. 7, Issue 3, 347-361.
- [26] Pavlou, P. (2003) Consumer Acceptance of Electronic Commerce: Integrate Trust and Risk with the Technology Acceptance Model, *International Journal of Electronic Commerce*, Vol.7, No. 3, 69-103.
- [27] Pavlou and Chai (2002) What drives electronic commerce across cultures? A cross-cultural empirical investigation of the theory of planned behavior, *Journal of Electronic Commerce Research*, Vol. 3, No.4, 240-253.
- [28] Porter, M. E. (1980) *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: The Free Press.
- [29] Porter, M. E. (1981) The contributions of industrial organization to strategic management. *The Academy of Management Review*, 6(4), 609-620.
- [30] Porter, M. E. (1985) *Competitive Advantage*. New York: The Free Press.
- [31] Porter, M. E. (1987) From competitive advantage to corporate strategy. *Harvard Business Review*, 65(3), 43-59.
- [32] Porter, M. E. (2008) The five competitive forces that shape strategy. *Harvard Business Review*, 86(1), 78-93.
- [33] Proctor, T. (2000) *Strategic Marketing: An Introduction*. London: Routledge.
- [34] Proctor, T. (2005) *Essentials of Marketing Research*. Harlow: Prentice Hall.
- [35] Rogers, E. M. (1983) *Diffusion of Innovations* (3rd ed.), New York, N.Y.:The Free Press.
- [36] San-Martin, S. and Lopez-Catalan, B. (2012) How can a mobile vendor get satisfied consumers? *Industrial Management and Data Systems*, Vol. 113, No. 2, 2013, 156-170.
- [37] Schierz, P.G., Schilke, O. Wiertz, B.W. (2009) Understanding consumer acceptance of mobile payment services: An empirical analysis, *Electronic Commerce Research and Applications*, 9(3), 209-216.
- [38] Sheth, J.N. and Sidosia, R.S. (1999) Revisiting marketing's lawlike generalizations. *Journal of the Academy of Marketing Science*, 27 (1), 71-87.
- [39] Tornatzky, L. and Klein, K. (1982) Innovation characteristics and innovation adoption-implementation: A meta-analysis of findings. *IWW Transactions on Engineering Management*, 29 (1), 28-45.
- [40] Varadarajan, P. R. (1999) Strategy content and process perspectives. *Journal of the Academy of Marketing Science*, 27(1), 88-100.
- [41] Venkatraman, S. (2008) Mobile payment implementation: a reference framework. *International Journal of Business Information Systems*. 3(3), 252-271.
- [42] Wurster, R. A. (2013) A new model for acceptance and adoption of Mobile Payment Services, Proceedings of the 6th International Conference on Management and Industrial Engineering – ICMIE 2013: “Management – Facing New Technology Challenges”, Bucharest, 31 October – 2 November 2013, 136-143.
- [43] Yang, S., Lu, Y., Gubta, S., Cao, Y., Zhang, R. (2012) Mobile Payment Adoption across Time: An empirical study of the effects of behavioral beliefs, social influences and personal traits. *Computers in Human Behavior* 28, 129-142.

Analysis of operations in the context of manufacturing, and its impact on the competitiveness of SMEs in Guadalajara, Mexico

*Guillermo Vazquez-Avila, gvazquezavila@hotmail.com
Jose Sanchez-Gutierrez, jsanchez@cucea.udg.mx
University of Guadalajara, Mexico*

*Juan Francisco Gomez-Cardenas, fragc@hotmail.com
Dario Montoya-de la Torre, dmtorreuan@gmail.com
University Autonomous of Nayarit, Mexico*

Analysis of operations in the context of manufacturing, and its impact on the competitiveness of SMEs in Guadalajara, Mexico

Abstract

This research is motivated by the importance of SMEs in the current work of the world and our country in particular. It is appropriate to understand the important social role played by SMEs to be an instrument of social cohesion and stability, creating employment opportunities for people with no professional education (Enríquez, Adame, Camacho, 2012). The analysis was done to manufacturing SMEs in Guadalajara, analyzing the mechanisms that SMEs become increasingly competitive, globalized, entrepreneurial vision with entities that have the resources to acquire the technology they will streamline processes.

We propose an approach where competitiveness is the dependent variable and independent variable operations, each variable is related to certain factors such as financial performance, technology and costs of the dependent variable as well as other factors by the independent variable, such as: reliability, administrative control, staff development and automation.

The results relates the operations (manufacturing), with competitiveness using Structural equations.

Keywords: Competitiveness, Operation, Business vision, technology

Manufacturing in Mexico 2013

Currently, the monthly reports from the National Institute for Geography and Statistics (INEGI) indicate that industrial activity in Mexico decreased (-) 1.67% in the fourth month of 2013 compared to last March based on seasonally adjusted figures. Manufacturing decreased (-) 1.16% during the month of April. But compared to the annual rate, manufacturing increased 5.6%. (INEGI, 2013)

The manufacturing industry in Jalisco

In June 2011 the production of the domestic manufacturing industry recorded an increase of 0.8% over the same month in 2010. The level of manufacturing output grew 1.7% in Jalisco during June 2011 at an annual rate. In the accumulated January-June 2011 grew 4.9% the manufacturing industry at national level for the month of September 2010, while in the state of Jalisco was growth of 7.7%.

Manufacturing SMEs in Jalisco

According to SEIJAL, (2012) Jalisco is the fourth at national level economy contributing 6.6% to the PIB in 2010. The main economic activities are manufacturing 42%, further highlighting the electronic industry

The metropolitan area of Guadalajara (ZMG) is one of the main tourist destinations in the country, out in Puerto Vallarta beach centers, strengthening the service sector. This has allowed it to stand out in the international arena both foreign trade and investment, contributing to the development of the entity (SEIJAL, 2012).

TABLE 1: EXPORTS AND IMPORTS OF MANUFACTURING ZMG

Manufacturing Industry	Exports Jan-Mar 2013	Imports Jan-Mar 2013 (USD)
Food industry	\$624,298,670.94	\$756,898,225.75
Textile industry	\$64,139,268.82	\$273,633,584.05
Footwear industry	\$11,104,970.00	\$53,776,079.83
Manufacture of rubber and plastic	\$194,404,329.31	\$624,325,828.51
Metal mechanical industry	\$433,536,079.39	\$686,404,676.84
Chemical industry	\$472,211,539.83	\$1,214,136,594.01
Furniture industry	\$67,859,260.24	\$75,256,617.43
Jewelry industry	\$133,099,360.67	\$18,049,896.21

Operations

Within operations, one of the factors that highlight most is the research on the human resources of the company. The knowledge, skills and attitudes of workers and how they are working, are increasingly important issues for companies, because traditional sources of success, as the technology and products, markets, financial resources and economies of scale are increasingly less relevant.

Although in the modern age the industry organization does not rely only on the organization of human labor but also on various factors that affect their operations, such as technology, capital, access, knowledge, proximity to logistics / market, etc., creating more competition. Therefore, industries are increasingly flexible in their manufacturing operations and their supply chains / distribution. However, industrial operations are inevitably exposed to a variety of risks arising from market conditions, technological changes and the disappearance of the benefits over a period of time. This makes industrial operations, obsolete or reduce the period of time with good benefits. Moreover, economic and financial factors and government policies play an important role in the prosperity of the industries and their disappearance (Nallathiga, 2010).

Therefore, for the development of operations personnel, we suggest considering the following skills in production, divided into two categories: intellectual control capability (to memorize the order of placement of parts or work procedure correctly) and skills motor and sensory (being the visual, auditory, tactile sense, and limbs) (Mori and Kikuchi, 1995). The latter being difficult to remove through interviews (Doyo, D., Ohara, A., Shida, K., Matsumoto, T., & Otomo, K., 2009).

It is important that the level of competition that a company projected, as there are several industries that are engaged in the same thing and sometimes that makes it more outstanding than the other is the performance and development of all staff it works. For that reason an institution or company should be able to compete with both domestic enterprises and global, whatever its rotation and size, but the best competition is with herself, as to be better every day is a goal that all industry should be set, as it is important to improve oneself to be better than the thousands of skills that surely exist in the market.

An important point for such purposes is industrial automation, serving much within a firm, as it is a primary tool for efficient management in enterprises, it can reduce time and increase productivity.

It should be noted that automation is not only the fact be changing machines and tools but is an entire project to be carried out to verify that it is profitable to automate the whole plant or part of it, this is based on painstaking research taking into account the history of the industry to subsequently reach the best conclusion (Télliez, 2008).

The automation process has now been successfully impact the software development, as these may become, in many cases, cheaper than conventional machines, one can speak of those programmable (PLC programmable logic controller) that sometimes you only ever need one operator, which reduces costs in payment for labor that is directly related to the process (Télliez, 2008).

Problematization

At present the issue of competitiveness for SMEs has expanded significantly in any business environment where these businesses are operating, leading to the conclusion that the economies of the regions where these organizations operate are constantly growing and important indices of competitiveness (Gardiner et al., 2004 Strambach, 2002)

Small and medium-sized enterprises in countries with a low industrial development have serious limitations, such as inadequate infrastructure and limited government support, hindering the implementation of innovation and the lack of financial resources in small and medium enterprises as essential for the development and growth because, due to deficiencies in the marketing and no specialization of human resources, as well as design and implement appropriate for new market development strategies, they impede the performance and implementation of the innovation. Similarly, several studies establish that barriers to innovation among business organizations are usually associated with the strategies, costs, human resources, organizational culture, information flow, and government policies (Baldwin & Lin, 2002; Mohen & Roller, 2005). In this sense, the barriers to innovation SMEs directly affect the limited resources they have (Hadjimanolis , 1999, Hewitt -Dundas, 2006).

The current situation presents small and medium enterprises in Mexico is the result of a gradual deterioration and results in the loss of competitiveness due to the lack of support to maintain growth and development; this has resulted in job losses and the closure of companies in this sector, due to international competition and globalization of markets (INEGI, 2004). The importance of SMEs in the environment, both for their contributions to the creation of jobs and wealth in the country, covering 95.5% of the total national companies, and generate 45% of GDP.

The fundamental problem with the Mexican manufacturing industry is the low labor productivity growth, due in part to the low investment in training, research and technological development "budget cuts in research and education that violate our future".

Given the current state of manufacturing in Mexico urges a new industrial strategy that is inclusive, sustainable, long-term, so far away, and with a free market that has not yielded the expected positive results.

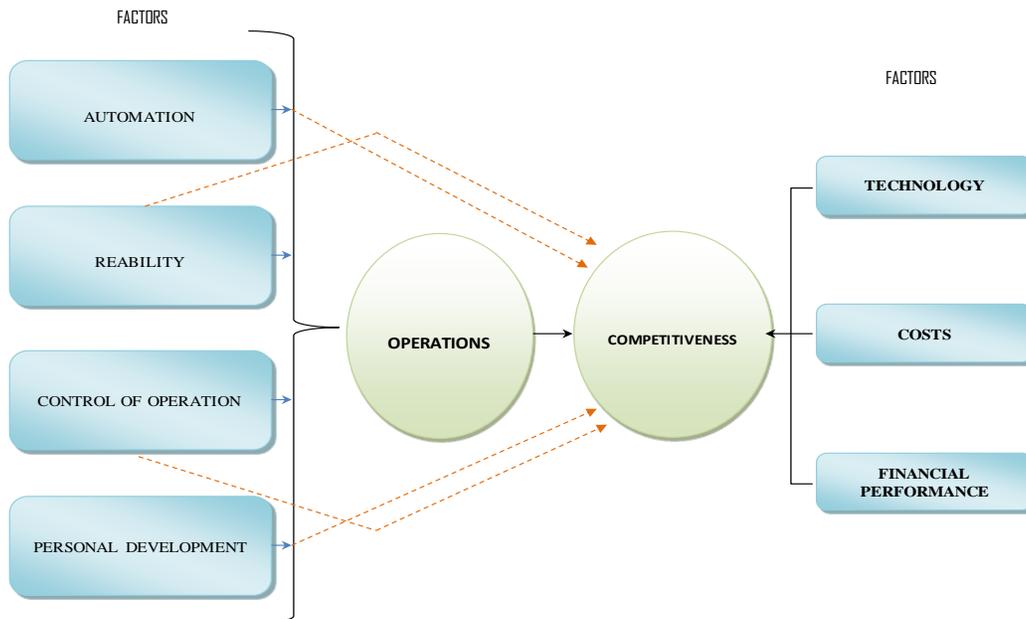
A strategy for the development of industry, value-added services and innovation, required to incorporate emerging issues in the new industrial policies on education and training, enhancing productivity, competition in domestic markets, internationalization of companies, research and technological development, energy efficiency, sustainable development and use of the purchasing power of government and big business to the development of suppliers of domestic goods and services.

Urges also define policies for industries and products that are facing new global competition or technological paradigms that detonate faster growth and more balanced regional development with significant impacts on employment, sectorial coordination and production chains.

Methodology

Research model of competitiveness with respect to operations of manufacturing SMEs in the ZMG.

Spatial and temporal delimitation



The delimitation of this study was done for manufacturing SMEs in the Guadalajara metropolitan area consists of the municipalities of Guadalajara, El Salto, Tlaquepaque, Tlajomulco de Zuñiga, Tonalá and Zapopan, in the period 2012-2013 being the cross questionnaire and this phenomenon was studied in a specific period (Münch & Angeles, 2009).

TABLE 2: NUMBER OF MANUFACTURING SMES IN THE METROPOLITAN AREA OF GUADALAJARA

Township	Manufacturing SMEs
1. Guadalajara	1, 417
2. El Salto	114
3. Tlajomulco	112
4. Tlaquepaque	317
5. Tonalá	155
6. Zapopan	732
TOTAL	2, 842

Source: INEGI (2013).

The sample

$$n = \frac{Z^2 \cdot N \cdot p \cdot q}{i^2 (N - 1) + Z^2 \cdot p \cdot q}$$

$$n = \frac{2.17^2 \cdot 2847 \cdot .50 \cdot .50}{(0.05)(.05)(2847 - 1) + 2.17^2 \cdot .50 \cdot .50} = 404 \text{ surveys}$$

TABLE 3: TECHNICAL DETAILS OF THE RESEARCH SAMPLE

features	survey
¹ universe	2 847 SMEs in the manufacturing industry.
Scope of Study	regional
Sampling Unit	Manufacturing SMEs with 11 to 250 workers
Method of data collection	survey staff
Sample Type	Simple random
Sample Size	400 companies
Margin of sampling error	± 4% at a global level, to a confidence level of 97% (p = q = 0.5)
Date of fieldwork	September 2012 to February 2013

Source: Authors' calculations based on data from INEGI (2013)

General purpose

To analyze the relationship between operations management and Competitiveness of SMEs in the manufacturing industry in the metropolitan area of Guadalajara.

Specific objectives

- To present the most relevant aspects of operations management and the importance of competitiveness as key to higher profitability in market share relative to its competitors.
- Identify the factors involved in the management of operations within the SMEs.
- Identify and relate aspects of operations management to competitiveness in organizations.

Hypotheses

- H1: A greater automation, lower production costs.
- H2: A greater control of operations, the greater the financial performance.
- H3: A better management of operations improves the competitiveness of the organization

Research question

What are the elements of the correlation between variables and Operations Management Competitiveness of SMEs in the manufacturing industry in the metropolitan area of Guadalajara?

Additional questions

What factors intervene in the management of operations in manufacturing SMEs in the central-western part of Mexico?

Is it possible to identify key processes for optimal management operations in the organization and deal with the changing environment to be competitive?

TABLE 4: INTERNAL CONSISTENCY AND CONVERGENT VALIDITY OF THE THEORETICAL MODEL

Variable	indicator	factor loadings	t-Robust value	A de Cronbach	IFC	IVE
Automation	PA1	0.776***	1.000*	0.807	0.808	0.583
	PA2	0.776***	18.768			
	PA3	0.739***	15.472			
Reliability	PCI_A	0.639***	1.000*	0.818	0.820	0.604
	PC2_A	0.839***	15.179			
	PC3_A	0.792***	14.951			
Control of Operations	PO1	0.749***	1.000*	0.877	0.876	0.542
	PO2	0.796***	18.707			
	PO3	0.648***	12.958			
	PO4	0.797***	17.911			
	PO5	0.748***	15.777			
	PO6	0.667***	13.527			
Personal Development	PD1	0.709***	1.000*	0.887	0.897	0.688
	PD2	0.832***	17.305			
	PD3	0.933***	19.612			
	PD4	0.828***	14.626			
Financial Performance	FP1	0.782***	1.000*	0.914	0.915	0.729
	FP2	0.895***	19.825			
	FP3	0.883***	20.492			
	FP4	0.851***	18.844			
Costs	PC2	0.747***	1.000*	0.843	0.845	0.580
	PC3	0.793***	13.501			
	PC4	0.847***	17.925			
	PC5	0.644***	12.192			
Technology	TE1	0.775***	1.000*	0.913	0.914	0.638
	TE2	0.817***	22.461			
	TE3	0.817***	18.706			
	TE4	0.826***	18.905			
	TE5	0.746***	15.540			
	TE6	0.809***	18.157			
S-BX ² (df373=894.9570 (p < 0.000), NFI=.888; NNFI=.919; CFI=.931; RMSEA=.059						

Parameter constrained to this value in the validation process*** = p < 0.001

Therefore, the results of applying the AFC are presented in Table 4.4 and show that the model provides a good fit of the data (S-BX²= 894.9750; df = 1321; (p < 0.0000); NFI = .888; NNFI = .919; CFI = .931; RMSEA = .059). Also, Cronbach's alpha and IFC exceed the value 0.70 recommended by Nunally and Bernstein (1994), which

refers to the rate of the extracted variance (IVE) was calculated for each pair of constructs, resulting in a higher than 0.50 IVE (Fornell & Larcker, 1981). And for evidence of convergent validity, the results indicate that the AFC all items related factors are significant ($p < 0.001$) and the size of all standardized factor loadings are greater than 0.60 (Bagozzi & Yi, 1988).

Regarding the indicators most relevant factor or more we have to load into the variable indicators include automation as automation (PA1) has automated production processes (PA2), has machinery that uses some software, which infer that the fact of having an automated process directly impacts the cost, increasing the reliability of the product as well as adhere to the planning in the preparation thereof.

Related to other indicators, administrative control of operations, note that the factor loading more records are: (PO1) has a statistical process control of production; (PO2) has a letter of process control; (PO3) has a plan for maintenance of machinery and equipment, we infer that directly affect respect to financial performance, once the projected financial statements have reliable support, whether it is possible to fulfill commitments with customers and deal with the volumes of production, both in quality and delivery times. For as regards the maintenance, it will not become a cause for backwardness.

TABLE 5: DISCRIMINANT VALIDITY OF THE MEASUREMENT OF THE THEORETICAL MODEL

Variables	Automation	Reliability	Control of operations	Personal development	Financial performance
Automatización	0.583	0.671	0.777	0.640	0.210
Reliability	0.501,0.841	0.604	0.851	0.751	0.2610
C. Operations	0.593,0.961	0.665,1.037	0.542	0.9140	0.3360
P. development	0.466,0.814	0.573,0.929	0.716,1.112	0.688	0.3060
Financial P.	0.096,0.324	0.157,0.365	0.222,0.45	0.194,0.418	0.729
Costs	-0.053,0.171	0.059,0.259	0.018,0.23	0.018,0.23	0.172,0.356
Technology	0.382,0.682	0.346,0.618	0.446,0.746	0.391,0.683	0.193,0.401

Regarding the evidence of discriminant validity, the measurement is provided in two forms that can be seen in Table 5. Since, with a confidence interval of 90% of confidentiality, none of the individual elements of the underlying factors of the correlation matrix contains the 1.0 (Anderson & Gerbing, 1988). Another point to note is extracted variance between the two constructs is greater than 0.50, taken from Table 4 that references the index variance extracted (IVE) (Fornell & Larcker, 1981). And based on these criteria it is concluded that the different measurements to model demonstrate sufficient evidence of reliability and convergent validity

Results

Finally to obtain the results statistics research hypotheses, a structural equation model (MEC) was performed using the same variables to check the model structure and get the results that allowed contrasting hypotheses, using for this the software and above EQS 6.1 (Bentler, 2005, Byrne, 2006; Brown, 2006).

As well as, the nomological validity of the theoretical method was analyzed by the Chi square test is the fundamental measure, where the final value of the adjustment function or minimization measure is the chi-square (Lévy et al . 2005); whereby the theoretical model was compared with the adjusted model. And the results indicate that no significant differences are good theoretical model in explaining the relationships observed between the latent constructs (Anderson & Gerbing, 1988; Hatcher, 1994). These results of the application of MEC are presented in Table 6.

TABLE 6: RESULTS USING STRUCTURAL EQUATIONS

Hypotheses	Estructural relationship	Factors loadings	T-robust value	Measure of the FITs
H1: A greater automation lower production costs	Automation → Competitiveness	.288***	.1711	S-BX ² ₍₃₇₃₎ = 894.757 P=0.000 NFI=.888
H2: A greater control of operations increased financial performance	Control → Financial development	.279***	.1577	
H3: A greater management operations increased competitiveness	Management → Competitiveness	0.736***	.3288	NNFI=.919 CFI=.931 RMSEA= 059

In the results table of the application of MEC appreciate where we refer to the hypothesis H1 regarding the results ($\beta = 0.288$, $p < 0.001$) indicates that automation has significant positive effects on competitiveness. Assuming H2 results ($\beta = 0.279$, $p < 0.001$) indicate that control of operations have significant positive effects on competitiveness. And finally with the latter hypothesis H3 results indicate ($\beta = 0.736$, $p < 0.001$) than the management of operations have significant positive effects on competitiveness. In the above table the results of the application of MEC appreciate where we refer to the hypothesis H1 regarding the results ($\beta = 0.288$, $p < 0.001$) indicates that automation has significant positive effects on competitiveness. Assuming H2 results ($\beta = 0.279$, $p < 0.001$) indicate that control of operations have significant positive effects on competitiveness. And finally with the latter hypothesis H3 results indicate ($\beta = 0.736$, $p < 0.001$) than the management of operations have significant positive effects on competitiveness.

Analysis and discussion

Automation currently plays an important role in business, because, once the processes are automated or support in software support activities, the goals can be met with regard to: quality, on-time delivery and the quality of the finished product, which directly impacts costs.

Since, compared to the results obtained in the statistical and factor analysis corroborated the views expressed by the various authors in the theory experts in the variables investigated; where manufacturing SMEs in the Metropolitan Zone of Guadalajara, consider that automation has significant effects on the implementation of cost reduction. With this budgeted reaffirms H1: a greater automation lower production costs.

In regards to the administrative control of operations, all attributes of this variable were accepted by the interviewees as elements to consider that the product met in terms of contributing to increase the profit margin. Identified as key elements were: statistical process control, have a preventive maintenance program, as well as exceed the expectations of customers in terms of quality. A further important point is the fact of working with suppliers to meet the input requirements of quality. With the above complies with H2: a greater administrative control of operations increased financial performance.

H3: the higher management operations increased competitiveness. If by definition, operations management refers to the control of resources flowing into a process properly structured, with the idea of adding value to fulfill the goals of the organization and make it happen in an environment that generates higher profits competition, this study reveals that, at least in manufacturing SMEs in the Guadalajara metropolitan area itself is true.

References

- [1] Aldás, M. J. & Maldonado, G. G. (2011). *Análisis Básico de Datos*. Universidad de Valencia, España.
- [2] Anderson, J. & Gerbing, D. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 13, 411-423.
- [3] Bagozzi, R.P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94
- [4] Baldwin, J., Lin, Z. (2002). Impediments to advanced technology adoption for Canadian manufacturers. *Research Policy*, 31, 1-18.
- [5] Bentler, P.M. (2005). *EQS 6 structural equations program manual*. CA: Multivariate Software.
- [6] Brown, T. (2006). *Confirmatory Factor Analysis for Applied Research*. New York: The Guilford Press.
- [7] Byrne, B. (2006). *Structural Equation Modeling With EQS, basic concepts, applications, and programming*. London: LEA Publishers.
- [8] Enríquez, L., Adame, M., & Camacho, R. (2012). The Relationship Between the Strategic and Growth Factors of Enterprise: Data of Mexico (Empirical Evidence). *Chinese Business Review*, 11(9), 781-792.
- [9] Hadjimanolis, A. (1999). Barriers to innovation for SME in a small less developed country (Cyprus). *Technovation*, 19, 561-570.
- [10] Hewitt-Dundas, N. (2006). Resource and capability constraints to innovation in small and large plants. *Small Business Economics*, 26, 257-277.
- [11] INEGI, (07 de julio 2013). Indicadores del sector manufacturero. La economía. Recuperado de: <http://www.laeconomia.com.mx/sector-manufacturero/>
- [12] Lévy, M. J. P. & Varela, M. J. (2003). *Análisis Multivariable para las Ciencias Sociales*. Mexico: Prentice Hall.
- [13] Mandujano, R. R. (2012). Las pymes: el cuarto sector de la economía/smes: the fourth sector of the economy. Paper presented at the, 7(2), 828-831
- [14] Mohen. P. Roller, L. (2005). Complementarities in innovation policy. *European Economic Review*, 49, 1431-1450.
- [15] Münch, L. & Ángeles, E. (2009). *Métodos y Técnicas de Investigación*. México: Trillas.

Contact author for the list of references.

Relational capital & communication

Branded apps for high-involvement products: the results of an empirical study

Federica Pascucci, f.pascucci@univpm.it

Sara Bartoloni, s.bartoloni@univpm.it

*Department of Management, Università Politecnica Delle Marche
Ancona, Italy*

Branded apps for high-involvement products: the results of an empirical study

Abstract

In the ecosystem of digital environments, the new communication policies of Inbound Marketing allow companies to reach their customers in a more effective way (Halligan and Sheh, 2010). A common feature of those policies is the pull-type consumption model of messages.

Among the wide range of communication channels available for disseminating these messages, the mobile plays an important role since cell phones have by now become 'an extension of the consumer'.

In particular, branded mobile applications enable companies to implement pull-type communication, by offering customized content that also helps to create brand engagement. Bellman et al. (2011) define branded apps as *"software downloadable to a mobile device which prominently displays a brand identity, often via the name of the app and the appearance of a brand logo or icon, throughout the user experience"*.

The aim of this paper is to investigate the propensity of firms to use branded apps in their communication policies. The studies conducted thus far on branded apps are still in their infancy and further research is needed to gain in-depth understanding of how applications can be implemented and used in marketing strategies (Mobile Marketing Association, 2009).

Given the aim of the study, a qualitative method will be adopted; it will consist of two steps: an analysis of the state of the art of branded apps in a sample of Italian industrial firms and an analysis of some meaningful case studies, through in-depth interviews. In particular, the focus will be on high-involvement products, such as furniture.

Introduction

Internet has changed the way consumers interact with brands and the diffusion of mobile devices has contributed to this trend. Smartphone penetration on total mobile audience has reached 64% in the EU5, with a maximum of 74% in Spain and 71% in the UK (ComScore, 2013), and 60% in the United States (ComScore, 2013).

Mobile channels have provided the market with the connectivity and context-aware search capability, which enables brands to target and interact with consumers on the go, as well (Deighton and Kornfeld, 2009; Crosett, 2012). Mobile channels have a unique target potential, as mobile devices are personal, location-aware, interactive, and always with the consumer (Khan, 2012). This enables brands to reach their target market anywhere, at any time with a tailored message (Vernali and Toker, 2012; Khan, 2012).

Research on mobile marketing is in its early stages (Persaud and Azhar, 2012). The conducted research is still very scattered across disciplines (management, marketing, information technology, finance, etc.) and fragmented; also, our understanding of mobile marketing is lacking (Varnali and Toker, 2010; Shankar and Balasubramanian, 2009).

Among the different mobile marketing formats there are branded applications that can be used by firms to implement a pull-based marketing communication. The mobile applications market is growing¹, but most of the branded apps prove unsuccessful (Dredge, 2011). How and why brands implement branded applications is therefore of interest and more research is needed to gain an in-depth understanding of how applications are and can be used in the marketing strategy.

Moreover, much of the research is still focused on push-based mobile marketing, such as SMS and mobile advertisement (Holland, 2010; Drossos et al., 2007) and there is still a lot to explore regarding pull-based mobile marketing, such as branded applications. The latter are still in their infancy and further research is therefore needed to explore best practices (Mobile Marketing Association, 2009) and to gain insight into the phenomenon and its concepts (Ghauri and Gronhaug, 2005).

So, the aim of this paper is to contribute to filling this gap by investigating both the propensity of firms to use branded apps in their communication policies and the strategies behind their implementation.

Given the explorative and descriptive nature of this study, a qualitative method will be adopted; it will consist of two steps: an analysis of the state of the art of branded apps in a sample of Italian industrial firms and an

analysis of some meaningful case studies, through in-depth interviews. In particular, the focus will be on high-involvement products, such as furniture.

Customer involvement in a product category is widely recognized as a major variable affecting a firm's advertising strategy and its effectiveness (Dahlen et al., 2010). For high involvement products, a customer searches for more information, engages in more active behavior, is more interested in evaluating alternatives, and devotes more attention to the advertising messages.

Branded apps can be an effective tool when used to meet the customer's informational needs and to stimulate more interaction with the brand.

This paper is structured as follows: after a brief review of the literature on mobile marketing and branded apps in particular, the empirical research findings are presented and some managerial implications highlighted; finally, some ideas for future research are proposed and the limitations of the study discussed.

The rise of mobile marketing and branded applications: a literature review

Nowadays the spread of mobile devices (laptops, tablets and smartphones) has reached a level that cannot be ignored by marketers and firms. People view their mobile phones as extensions of themselves (Bellman et al., 2011): something they cannot live without and which allows them to be in contact with anyone, anywhere, and at any moment. So, mobile devices have become a powerful tool which firms could use to create a constant connection with the customer.

Consequently, the amount of academic research on mobile marketing has grown very rapidly in the past few years, the majority of which is focused on the following issues (Varnali and Toker, 2010):

- the mobile consumer's behavior (Persaud and Azhar, 2012), the objective being to explain the adoption of mobile marketing, starting from individual-level characteristics;
- the conceptualization of mobile marketing and m-commerce from a theoretical point of view;
- the strategy of formulating a mobile business model.

Mobile marketing is defined as «a set of practices that enable organizations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network» (Mobile Marketing Association, 2009). This type of interactive communication is provided by four aspects which characterize mobile devices:

- *Location specificity*: a GPS system inside mobile devices could define the physical location of the user. This aspect allows marketers to target location-sensitive promotional offers to mobile device users (Shankar and Balasubramanian, 2009).
- *Portability*: the ultra-small size and the ease with which it can be carried make a mobile device a constant companion to the user and allows it to be used on a continuous basis (Shankar and Balasubramanian, 2009).
- *Untethered/wireless feature*: the typical mobile device is not tethered or connected by wires for the majority of the time that it is in use (Shankar and Balasubramanian, 2009).
- *Customization*: they are extremely adaptable to the customer's tastes. Users can choose what content and what functionality to download to their device (Boaretto et al., 2011).

These features offer great potential for understanding a customer's preferences and quickly advertising customized products or services (Tang et al., 2013).

Mobile marketing can be implemented using different tools:

- SMS, MMS;
- mobile advertising;
- mobile site;
- QR code;
- mobile applications.

Some of the characteristics of these formats are summarized in Table 1.

TABLE 1: DIFFERENCES AMONG MOBILE MARKETING FORMATS

Format	Type of communication	Objectives	Advantages	Disadvantages
SMS, MMS	Push	<ul style="list-style-type: none"> - Lead generation - Conversion - Customer retention 	<ul style="list-style-type: none"> - Little planning effort required - Extremely viral 	<ul style="list-style-type: none"> - Must opt-in - Perceived as intrusive by users
Mobile advertising	Push	<ul style="list-style-type: none"> - Awareness - Reputation - Conversion 	<ul style="list-style-type: none"> - High visibility on the small screen of the mobile device - High rate of click through 	<ul style="list-style-type: none"> - Perceived as annoying by users - High level of accidental mobile clicks
Mobile site	Pull	<ul style="list-style-type: none"> - Customer experience - Conversion - Brand awareness 	<ul style="list-style-type: none"> - Visibility in mobile search engines - Compatibility across any device - Flexibility of upgrading 	<ul style="list-style-type: none"> - Internet connection always required - No integration with all the mobile device features (camera, GPS, address book)
Branded app	Pull	<ul style="list-style-type: none"> - Engagement - Customer experience 	<ul style="list-style-type: none"> - Unique user experience - No Internet access required - High level of integration with all the mobile device features 	<ul style="list-style-type: none"> - Not accessible on all devices - The app updates must be submitted and approved by the app store every time
QRcode	Pull	<ul style="list-style-type: none"> - Lead generation - Engagement - Customer experience 	<ul style="list-style-type: none"> - Integration between traditional offline communication and online communication 	<ul style="list-style-type: none"> - Download of a QRcode reader required - Lack of awareness by the user

Among these tools, mobile applications present some distinguishing characteristics that can create a new realm of possibilities in mobile relationship marketing and in the engagement of the consumer (Chiem et al., 2010). Bellman et al. (2011, pp. 191) defined branded apps as *software downloadable to a mobile device which prominently displays a brand identity, often via the name of the app and the appearance of a brand logo or icon, through the user experience*. They implement a *pull-based mobile communication* in contrast to other tools (such as, SMS, mobile advertising) that implement a traditional *push-based mobile communication*. Push-based mobile communication consists of any content sent by, or on behalf of, marketers to a mobile device at a time other than when the subscriber requests it. On the contrary, pull-based mobile communication refers to any content sent to the mobile subscriber upon request, or shortly thereafter, on a time basis. So, with branded applications the firm doesn't need to get the user's permission in order to send the marketing content. It's up to the customer to talk to the brand, not the firm which contacts him through his device. In this case, customers are only exposed to the apps they opt into by downloading them and they are also able to control what personal information they want to reveal when customizing the app (Bellman et al., 2011).

It has been shown that companies can use apps to create personalized content, thus promoting brand engagement and giving the device an actual and sustainable utility (Chiem et al., 2010), rather than simply creating brand awareness by sending text messages to the customer (for example, with an SMS). This last practice is totally inappropriate as a way to engage the user who not only perceives mobile communication by text-messages as annoying and irritating, but also sees it as an intrusion of his/her privacy. As Watson et al. (2013) have demonstrated, users consider mobile handsets to be extremely private, something they use for their own personal reasons, so they don't like to be contacted by companies this way. Users have a positive attitude, instead, towards brands that offer useful and entertaining apps. In contrast to the other forms of advertising, branded apps are welcomed by customers because

they are useful and it is they who choose to download them (Bellman et al., 2011). In fact, both smartphone and iPad users spend the majority of their time (respectively 87% and 76%) using mobile apps (Nielsen, 2013).

Branded apps are an effective form of advertising that influences the customer's attitudes and purchase intentions. In addition, branded apps also increase interest in whole categories of products. Therefore, they can be a useful medium for educating people about new categories which they have not yet tried (Bellman et al., 2011).

Nevertheless, branded apps do not have all the same effectiveness. For example, apps with an informational style are more effective at shifting purchase intention, compared to apps with an experiential style (Bellman et al., 2011). This happens because the informational style focuses attention on the user and encourages him/her to make a personal connection with the brand, while the experiential style focuses attention on the phone. Furthermore, a recent study by Kim and Lee (2014) investigates how subjective characteristics, such as beliefs, values, attitudes, evaluations, preferences, and tastes of smartphone users, influence the preferred type of mobile communication. They found four different groups of mobile users: *The Business Partner* prefers cross media ads and mobile web banners, but hates Social Network ads; *The Skilled Enthusiast* fancies in-apps, QR, Localization Based Service ads and mobile web banner ads, but does not like streaming, e-book and coupon ads; *The New Experience Seeker* prefers coupon ads and streaming media ads, but hates mobile web banners or map ads; *The Close Buddy* prefers Social Network, coupons, map ads, cross media ads, but dislikes QR.

Recently, some authors have also turned their attention to the branding design elements that must be present when developing a mobile application, namely brand name, brand logo, brand design (including typeface, layout, colors, stimuli), brand content (including imagery, copy, relationship feature, sound and video). Visual design elements strengthen the brand image, resulting in the improvement of brand loyalty, brand satisfaction and brand equity (Magrath and McCormick, 2013). It is suggested that these four elements act as a pillar of information and help the consumer to recognize the brand values linked to the mobile app. Thus, all brand channels should be consistent and utilize, for example, the same font, colors and presentation style in order to form an identifiable entity (Okonkwo, 2007).

Finally, it is important to underline the differences between a mobile branded app and a mobile site, which are often confused. The choice for a company is whether to develop a mobile branded application or to create a corporate website that is optimized for smartphone views. These two formats differ in four main areas (Boaretto et al., 2011):

- *dependence on device*: branded apps are totally dependent on the operative system they are designed for; mobile sites are device-independent, they are available on the Web and accessible from all devices;
- *presence of Internet connection*: in contrast to mobile sites, branded apps do not need an Internet connection in order to be used;
- *interaction with the device*: mobile sites are not supposed to interact with all the functions of the device. On the contrary, branded apps can have complete access to the hardware components of the device, such as camera, address book, etc.;
- *visibility of the brand*: mobile sites benefit from the visibility provided by keyword advertising and search engine optimization (SEO), while branded apps are less likely to be seen by the customer. Their promotion has to follow different rules, connected to visibility inside App Stores.

As stated in the introduction of this paper, the type of product being marketed can influence the communication strategy's effectiveness and the choice of the most appropriate tools to carry it out. For example, more Internet users click on banner ads for high involvement products than do on banner ads for low involvement products, because they then search for more information and clickthrough increases positive brand attitude and brand purchase intention for high involvement products (Dahlén et al., 2010). By contrast, attitudes and buying intentions are less favorable when an SMS is used to advertise a high-involvement product compared to one for a low-involvement product, because of the limited quality and quantity of information that an SMS can communicate to the user (Drossos et al., 2007).

In general, for high involvement products (such as furniture) customers search for more information, engage in more active behavior, are more interested in evaluating alternatives, and devote more attention to the firm's content. The purchase process is longer and they perceive more risk. In this context, the aim of the firm's communication strategy should be to provide useful information as well as service, and to educate the customer, rather than simply

creating brand awareness (Dahlén et al., 2010). A good app can convey a lot of relevant and timely content to the customer, in an original form and so, help the users to best appreciate the product and brand. In addition, an app that satisfies the expectations of its target would encourage a more frequent interaction with the brand and thus, more engagement.

Mobile apps in the Italian furniture industry: an empirical analysis

Research methodology

The research can be divided into two different steps.

Step 1) A descriptive and quantitative analysis of the existing situation of the mobile branded applications market in the Italian furniture industry.

In order to measure the level of adoption of this marketing tool by the selected sample, a longitudinal analysis was conducted, consisting in a comparison between two different time periods, December of 2012 and February of 2014. The aim of this phase was to monitor the mobile branded applications market and record its changes from a quantitative point of view. The sample consists of the one hundred companies with the highest turnover in the Italian furniture industry. In order to create the sample, the AIDA² database was used and companies identified according to the ATECO³ 2007 codes.

The analysis included the following variables.

a) *The number and the type of applications developed by each firm.* The search was limited to the two main App Stores on the market nowadays, in terms of shares of revenues and number of applications: iTunes and Play Store⁴. Since there are no consolidated models at present, the app classification was based on two different dimensions, the function and the content of the app (Figure 1).

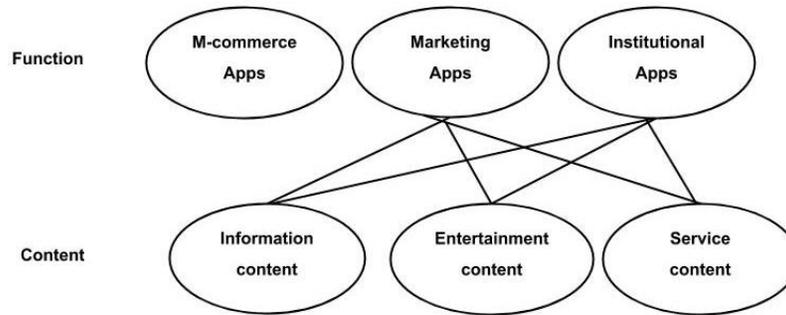


FIG. 1: CLASSIFICATION OF APPLICATIONS

The first dimension identified three different categories of applications:

- *M-commerce applications*: apps with clear commercial objectives that allow the user to purchase directly from his/her mobile device;
- *Marketing applications*: apps designed for the promotion of the brand, the product or the service and directly related to the final user;
- *Institutional applications*: apps developed to communicate the company's values to all the stakeholders. They include applications relating to the company's profile, mission and initiatives.

The latter two categories were subjected to another characterization based on their content and they were divided into:

- *Apps with information content*: the application provides useful information about the company, the brand, the nature and the use of the product or service. The level of interaction with the customer is low or, in some cases, totally absent. This category includes, for example, apps which describe the product, display catalogs, show company services, and so forth;

- *Apps with entertainment content*: apps which use activities, games or other entertainment tools in order to engage the user in an active and unconventional way. The relationship with the customer reaches high levels of interaction, motivated by the pursuit of leisure;
 - *App with service content*: the application aims to provide varying degrees of usefulness to the customer. The level of interaction with the user is generally high and it could be for anything from simple services, such as the Store Locator, to more complex services, such as product customization by the user .
- b) *The operating system chosen*: iOS and/or Android.
- c) *The mobile device* for which the application was made: smartphone (iPhone or Android Phone) and/or tablet (iPad or Android Tablet).
- d) *Integration with the corporate site*, measured by the presence in the company's web site of a link (or something similar) referring to the mobile application.

In addition, for each of the 100 companies of the sample, the creation of an optimized website for mobile use was verified. The *optimization of the site* refers to a website that is perfectly viewable and navigable from any type of device (mobile or desktop).

Step 2) A qualitative study carried out through the analysis of three case studies.

The analyzed cases are included in the sample of the 20 companies operating in the sector, that have developed at least one mobile application⁵. They are three medium-sized and large firms in the Italian furniture sector, with different positioning and target markets. Company A and Company C are designed for a niche of high-income consumers, by offering high-quality and hand-crafted products; they are historical Made in Italy brands. Company B, instead, is positioned transversally, with products that appeal to a wider market which also includes less well-off consumers; the brand has a high reputation in the Italian market, where it made 80% of its turnover, thanks to widespread distribution throughout the territory. The other two firms are more export-oriented, with a percentage of turnover generated abroad exceeding 50%. Their product is different, too: the core business of companies A and C lies in the manufacture of upholstered furniture (plus other complementary goods) while Company B's core activity is kitchen and bathroom furniture. As a final point to note, Company C is part of a group of companies which includes other furniture brands.

The people in charge of communications for these companies were interviewed about the firms' digital communications strategy and mobile marketing. The interviews were conducted following a semi-structured design based on open questions. All the interviews were recorded so the authors could transcribe the material.

Results of the descriptive and quantitative analysis

The results of the first step are presented in Table 2.

TABLE 2: RESULTS OF THE DESCRIPTIVE ANALYSIS

	2012	2014
no. of companies with at least one app	13 (13%)	20 (20%)
Total no. of apps	19	28
no. of iPhone apps	11 (57.9%)	17 (60.7%)
no. of iPad apps	17 (89.5%)	26 (92.8%)
no. of Android Phone apps	4 (21%)	6 (21.4%)
no. of Android Tablet apps	5 (26.3%)	7 (25%)
Total no. of iOS apps	18 (94.7%)	27 (96.4 %)
Total no. of Android apps	7 (36.84 %)	8 (28.57 %)
no. of companies with at least one app among the top ten	1 (1%)	2 (2%)
no. of companies with at least one app among the latest 15	4 (26.7%)	4 (26.7)
integration with the corporate website	10 (52.6%)	12 (42.9%)

Between 2012 and 2014, the number of companies that have developed at least one application has risen from 13 to 20, while the total number of apps has grown to 28, an increase of seven. Despite the slight increase, the numbers are

still quite low (only 20% of companies have developed an application). From these findings, we deduce that *companies are still reluctant to incorporate this tool into their mobile marketing strategies.*

Regarding the choice of operating system, in 2014 there is a clear prevalence of iOS (96.4 %) over Android devices (28.57 %). This gap is greater than the surveys for 2012 showed, when the percentages amounted to 94.7% and 36.84 %, respectively. The new applications, in most cases, were carried out only for Apple devices. This data appears to be in contrast to the evolution of the OS market, since Android has by far surpassed iOS in both number of sold devices and market share⁶.

Many companies today are probably using the iOS platform for two reasons:

1. iOS is more “traditional” and companies are more aware of how it works and how to use it;
2. iOS allows them to identify a certain type of target population; in fact, it is known that iOS is used mostly by people of the upper-middle class. Android, instead, is used on both up-market and low-market smartphones and it is used by people of many different classes. This gap is probably also due to the fact that the process of technology adoption is different between consumers and companies because of the lack of competences and investments in terms of budget by the latter.

The number of applications developed for tablets is greater than for smartphones, and this hold true both for iTunes and Android. This aspect of mobile marketing highlights how the furniture industry can reap the benefits of the bigger screen of a tablet, since it can provide a much clearer visualization of products and catalogues, compared to the small screen of a mobile phone.

Another important aspect that emerged from the study is that among the top ten companies classified by turnover, only one (in fifth place) has its own app, while the company ranked first in the industry still does not offer any app. The situation changes for those ranked lower in the sample where there are four companies with at least one app; so, it appears that smaller companies are more aware of an apps’ potential than the biggest ones are.

Moreover, only 12 out of 20 companies have integrated the app with their corporate site, where there is a space dedicated to the promotion of the application, sometimes through a direct link to download it from the Store.

Finally, 19 out of the 100 companies were able to achieve full optimization of their website, in order to be viewable from any mobile device. They are not the same ones that developed a mobile application. Therefore, it appears that the two formats are considered either/or options by businesses.

The findings of the study concerning the characteristics and functions of the applications are presented in Table 3. There is no m-commerce application for either year and there is only one institutional app. Therefore, companies opted for a marketing app with an information content. The catalogue-viewing function is predominant among all applications and it appears to be an alternative to downloading the brochure from the company’s corporate website. This means that mobile branded apps can have important implications as far as delivering information to the user in every touch-point with the company and in every stage of his/her relationship with it.

TABLE 3: CLASSIFICATION OF APPLICATIONS

	2012	2014
no. of marketing apps	18 (94.7%)	27 (96.4%)
no. of institutional apps	1 (5.2%)	1 (3.6%)
no. of m-commerce apps	0	0
no. of information content apps	16 (84.2%)	25 (89.3%)
no. of service content apps	2 (10.5%)	2 (7.1%)
no. of entertainment apps	1 (5.3%)	1 (3.6%)

This could be a consequence of the high involvement nature of the furniture product, which is not purchased very often and implies high prices. In order to reduce the complexity and the perceived high risk, customers require a lot of information before completing the purchase. For this reason, it is important to offer them the right tools to ensure an adequate level of information from both the quantitative and qualitative point of view. The nature of the product also partly explains the absence of m-commerce apps; in fact it is rather unlikely that the consumer will purchase a

kitchen or a bathroom from his mobile device. In this case, the contact with the retailer becomes essential and is directly connected to the complexity of the product.

Results of the three case study analyses

Digital communication and mobile strategy

The three surveyed companies are different in both the adopted digital communications strategies and in the level of integration and importance of the mobile communication strategy within the firms' communication policy.

Companies B and C can be placed in two opposite positions, while company A is located in an intermediate situation.

Company B is still tied to a traditional type of communication, where web and mobile play a marginal role; it prefers the offline channel and traditional advertising, such as print, radio, billboards, TV, that still carry a heavy weight in communication investments. This is the result of an involution in the digital policy of the company, which entered the Web in 1990, with the creation of the corporate website and the use of different banner and display campaigns. Nevertheless, it gradually reduced investment in online channels, because of some unsatisfactory results obtained. The site is optimized for mobile devices; however, this choice is not linked to a particular strategy or designed to achieve specific goals or targets, because the site itself it is not one of the corporate communication strengths.

On the opposite side, company C is strongly embracing the new means of communication and makes the mobile the main strongpoint of its strategy. In its sector it has been an early mover for online and mobile communication. This is coherent with its competitive positioning, based on innovation as well as on quality and the design of its products. The digital and mobile strategy of the company has changed over the last year as a result of the strategic decisions made by the Group; they went from a common and integrated Group-wide strategy, which aims to enhance the identity of the group rather than any single brand, to a more individual strategy which aims to restore the identity of each of the three brands in the Group; as a consequence, now every brand site and every branded mobile application has a distinctive language, content, look and feel.

In addition, last year, significant changes to the mobile strategy were also made; the core of this strategy is no longer the branded app but the responsive website optimized for mobile devices. This choice is due to the fact that, at the end of 2013, for the first time the accesses to the website from mobile devices (60%) exceeded those from desktops. The creation of an optimized mobile site has become a necessity derived from the request of the consumers, the operators, the agents and the retailers who use the site both as an informational and a business tool. The company has therefore decided to continue to serve the Apple channel, through the application, but focusing its mobile strategy on the website, viewable from any device.

For company C the mobile has become the main tool for creating a connection between offline and online channels. In fact, in its showroom and in all other exposures it just started to use NFC tags and QR codes on its products; these codes allow anyone to download a data product sheet onto their phone and share it on social networks.

Company A is in an intermediate situation, somewhere between the previous two. As stated by the interviewee, the company has always carried Print advertising campaigns, centering around newspapers and public relations, but they have recently started using the Web: corporate website, presence on social networks (Facebook, Pinterest, GooglePlus, LinkedIn, YouTube) and a mobile application. Hence, the mobile strategy is part of a larger process of opening up to digital communication, which began with the redesign of the corporate website structure, constantly updated and whose main objective is giving information. Furthermore, the site structure has been made more fluid and responsive to viewing from any type of device. Even in this case, just as for company C, the choice to create an optimized site was made based on the big growth of accesses recorded from mobile devices.

Characteristics of the applications

Companies B and C have developed only one mobile application, while company A is present on the market with two apps. However, only one of these apps has been the subject of the study, because the other one was designed for the showroom in 2012 and will soon be taken off the market.

The characteristics of the three applications are presented in Table 4.

TABLE 4: MAIN CHARACTERISTICS OF THE ANALYZED APPS

	Company A	Company B	Company C
Release date	2011	2012	2009
Operative System	iOS, Android	iOS	iOS
Device	Tablet Smartphone	Tablet Smartphone	Tablet Smartphone
Technological nature	Native	Native	Native
Target	BtoB (sales force and agencies)	BtoB (agencies)	BtoC (consumers) BtoB (agencies, sales force, retailers and architects)
Classification	Marketing app with information content	Marketing app with information content	Marketing app with information content

Motivations, objectives and targets

Table 4 shows that companies A and B have developed applications for BtoB users, while only company C has expanded its target to consumers and architects.

In the case of Companies A and B, the app development was driven by the demands of their sales force and agents who needed an efficient and practical working tool which would enable them to consult the catalog at any time without physically carrying it and regardless of the availability of an Internet connection. The objective was therefore to provide an effective tool to support sales. However, in the case of company A the app is usable and downloadable by anyone, including the consumer, from the Apple and Play Store.

Company C differs substantially from the others; its target is a lot wider:

- sales network, which requires a responsive and inexpensive tool for the presentation of products and the updating of catalogs;
- architects and interior designers, who require support for their design work in terms of access to product information and images;
- consumers.

The main objective of the application developers was twofold: on one hand, they wanted to meet the demand of various company customers, from a service point of view, by offering a tool with high added value that would facilitate their work and the product sale; on the other hand, they wished to enhance customer engagement through the use of an innovative tool, and then make him want to come to the store. The decision to develop a mobile branded app was also supported by the company's desire to be perceived as "innovative". The communications team member interviewed said in this regard: "we are strongly oriented towards innovation, with a pioneering communication; so we wanted to convey the idea that we are also leaders in the digital industry."

Contents

All three apps have been categorized as marketing applications with information content because of the predominance of information related to the product and the brand, rather than to other content.

However, it must be underlined that Company C is a particularly complex case, as its app also delivers, in addition to the purely informative content (for example, the product catalog), an entertainment and especially, a service type of content, albeit in a lesser amount. The entertainment content is supposed to emotionally involve the final customer through the use of some engagement tools, such as virtual factory tours, while the service content is associated with the presence of the Store Locator and the 3D configurator. The app created by Company C, compared to the two other company apps, appears much richer in order to adapt to its three different targets. Nevertheless, the company is trying to streamline the contents and transfer them to the optimized website.

In Company A, the branded application and the website have the same content, except for the Store Locator which is only implemented on the site but not in the app: the purpose of the company is essentially informative. In

particular, the application contains sections related to products, designers, news, photo gallery and allows the user to create his own 'wish list'. The strength of the application, as the interviewee says, is to be constantly updated in terms of content so that users are able to know all the news concerning the products, their technical specifications, and the communication policies promoted by the company. The company B's app is similar in terms of content characteristics in that there is a product catalog, brochures, video tutorials, etc. The strength of the app, however, is its ability to provide customized content to agents, including official communications from the company.

Operative System and Technological nature

Of the three cases, company A is the only one to release a mobile application for both Android and iOS. The choice is clearly explained by the digital communications manager: "Making a choice to serve some users and not others is a wrong choice. Moreover, looking at our customers and our markets, we noticed that Android is the most popular one. Especially in our sales force, a lot of agents don't have an Apple device but they own a Samsung. Not to mention that this brand is highly preferred in China and Android seems to dominate throughout the East. For this reason we decided to make a double effort at the beginning of the development process, but once you make this initial effort, it is something that remains with the company forever."

For Company B, the choice was imposed by the web agency itself, which developed the application only for Apple devices.

Company C, also, decided to make an application for the iPhone and iPad only, and has so far not shown any desire to enter the Android market. The choice in this case is solely derived from the consistency between its target and the Apple target, which in both cases is composed of people with a high income, often foreigners (non-Italians) and people who appreciate innovation and high end technology.

All three apps are native apps which allow access to all of the functions of the mobile device to which they are downloaded. These types of apps could also work offline and, unlike the web app, ensure a higher quality of user experience, since they are optimized for a specific platform and device. On the other hand, they imply a much higher initial investment in their development.

In all three cases, the app implementation was delegated to a web agency, while the company maintained the internal control over the content and the possibility of updating the app. This is possible thanks to the use of CMS systems (content management system). However, it is worth pointing out that Company B displayed a more passive attitude towards the app development process; the external web agency was predominantly in charge of the initiative.

Results of applications

As it emerges from the three interviews, there are some difficulties inherent to measuring the results of the branded application. Due to the fact that apps are a communication tool and that none of the three companies has an e-commerce channel, it is difficult to establish quantitative metrics that can associate the increase in sales with the growth in downloads. However, the results deriving from the use of this mobile instrument have been judged satisfactory by all three companies.

Main findings, managerial implications and limitations of the study

The objective of this research was twofold: 1. to analyze the propensity of firms to use branded apps in their communication strategies; 2. to explore the reasons why and the way some firms are already using them. The research was focused on Italian furniture firms which are characterized by the sale of high-involvement products.

From the quantitative analysis it emerged that companies are still reluctant to incorporate branded apps into their marketing strategies, as shown by the fact that only 20% of the sample has developed at least one branded app. This could probably be due to the nature of the industry, which is not web-oriented and still connected with traditional push-based communication. From the three analyzed cases it emerged that commitment to mobile communication goes hand in hand with commitment to digital communication in general: mobile and digital communication are seen as integrated and complementary. As a result, Company B, which prefers a traditional type of communication, attributes a marginal role to both digital and mobile communication. The opposite happens for the other two companies and in particular, for Company C.

The limited role assigned to the new means of communication by Company B could be due to its different market target, from both a geographic and strategic point of view, as it is more focused on the Italian market and addresses a wider (mass) market. On the other hand, Companies A and C are more export-oriented and aim to reach a global niche of high-spending consumers who, compared to Italian customers, are more likely to use these new technologies and are more sophisticated in their use. Smartphone and iPad are becoming the primary tools that foreign users adopt to search for products and make purchases. The use of branded apps could become an effective tool for companies that want to reach international markets. The nature of this research does not allow the Authors to draw definitive conclusions about this aspect and so, future research could verify the existence of a relationship between export intensity and propensity to use mobile apps (or mobile sites) through a quantitative survey.

The conservative orientation of Italian furniture firms is confirmed by the choice of the Operating System: 96.4 % of the total apps are designed for iOS devices, while only 28.57% for Android. The fact that this trend has increased over the last two years is one of the most important findings of the research. Firms continue to not consider the Android target in their mobile marketing strategy, even if nowadays it represents the widest app market in the world. From the three cases analyzed, it emerges that the preference for iOS derives from the increased knowledge and experience of use that companies have for iOS compared to Android. Moreover, the process of technology adoption is different between consumers and companies. While from the consumer's point of view the OS market is changing faster, from the firm's point of view the process is slower, because of the need to develop new competences in the emerging technologies. In the specific cases we have analyzed, the iOS preference is also due to the correspondence between the Apple target and the companies' target. The choice of Operating System is strategically important and management must be aware of the target users' preferences.

The study has brought to light that firms look at branded apps and the mobile site as alternative choices. In fact, in the majority of the cases, firms which developed the app did not make their website optimized for mobile viewing. However, these two formats have different characteristics and they allow the firm to reach different goals. Therefore, for companies it would be better to implement both formats. However, this strategy requires high investments and a choice is often forced by limited available resources; in this case, the decision makers have to identify the firm's objectives early on and then, choose the right formats in order to achieve them. This was the case in Company C which changed its focus from app to mobile site in the last year.

A useful contribution made by this paper is the app classification model which is based on two different dimensions, i.e. the function and the content of the app. This model makes it possible to identify the characteristics of the branded apps. The results show that the companies opted for a marketing app with an information content. This result is in line with Bellman's (Bellman et al. 2009) findings, i.e., the informational style of app is more effective at shifting purchase intention than are apps with an experiential style. Branded apps could be used to deliver useful information to users in every touch-point with the company and in every stage of the relationship. This is true, in particular, in high-involvement products, for which the decision process is complex and risky. Branded apps could become a useful tool when adopted to vehicle company and product information to the customers who would now be able to access the information anytime and anywhere. This way of using branded apps would ensure that the company can improve the customer experience and decrease the perceived risk. Actually, in the three analyzed cases the apps are designed to facilitate the company's relationship with the customer in the pre-purchase stage, rather than in the transactional and post-purchase phase. This is evident in the case of Company C, whose app intentionally addresses BtoC users but also in the other two cases, in which the app's target is clearly BtoB. In these latter two cases, the objective is to provide those who must interface with customers (intermediate and final) with the most effective tools and materials to present products and to influence the consumer's selection process. The results of the study confirm that for the high-involvement products the app's goal is not to create brand awareness, but to provide information and services, and to educate the customer. It might be interesting to investigate low-involvement products in order to identify different strategies and different uses of branded apps compared to high-involvement products.

The research also drew attention to another type of branded app, business-to-business apps. The past literature concentrated primarily on mobile applications for the consumers. This study, instead, shows how apps could also be an effective support tool for the sales force. First of all, the catalogue function solves the problem of space which affects the furniture industry; with a digital catalogue, retailers and agents could show the entire range of products to

the customer, without having to physically carry or display them in the store. Secondly, the app is a means of direct communication which allows the company to send tailored messages to their sales force and constantly update them.

A problem related to the use of branded apps emerged from the qualitative analysis, however, and that is the lack of quantitative metrics to measure the apps' return on the investments. In fact, even if companies could know the number of downloads of their app, nowadays there is no established method that allows firms to monetize this type of strategy. Therefore, further research is required in order to define a pool of quantitative metrics that can help managers to measure the results, especially in the case of apps other than m-commerce apps.

As regards the limitations of the study, the research method does not allow the generalization of the findings, but this was not the aim of the paper. It was to explore the current situation and the role of branded apps in firms' marketing strategies, in order to contribute to filling the gap in the literature, which is scarce and mostly focused on push-based mobile formats.

References

- [1] Bellman S., Potter R.F., Treleaven-hassard S., Robinson J.A., Varan d., “The effectiveness of branded mobile phone apps”, *Journal of interactive marketing*, vol. 25, 2011.
- [2] Boaretto A., Noci G., Pini F., *Mobile Marketing: oltre le app... per una vera strategia multicanale*, Gruppo24ore, Milano, 2011.
- [3] Chiem R., Arriola J., Browers D., Gross J., Limman E., Nguyen P.V., Sembodo D., Song Y., Seal K.C., “The critical success factors form marketing with downloadable applications: lessons learned from selected European Countries”, *International Journal of Mobile Marketing*, Vol. 5 Issue 2, 2010.
- [4] ComScore (2013), *The rise of the 3Ms: m-Retail, m-Commerce & m-Payments*, MMA Forum: Mobile and the Path to Purchase, 11 November 2013, London.
- [5] ComScore (2013a), *The digital world in focus*.
- [6] Crosett, K. (2012) *Mobile to Become Top priority in 2013. Marketing Forecast by ad-ology* [Internet] 5 December. Available from: <http://www.marketingforecast.com/archives/21774> [Accessed 21 March 2013]
- [7] Dahlén M., Ekborn Y, Morner N. (2000), “To click or not to click: An empirical study of response to banner ads for high and low involvement products”, *Consumption Markets and Culture*, 4:1, 57-76.
- [8] Deighton, J., & Kornfeld, L. (2009) “Interactivity's Unanticipated Consequences for Marketers and Marketing”, *Journal of Interactive Marketing*, Vol. 23, Iss. 1, pp. 4–10
- [9] DMA (2008), “Mobile Marketing: Consumer Perspectives,” New York, NY: Direct Marketing Association (July).
- [10] Dredge, S., 2011. *Most branded apps are a flop says Deloitte. But why?* The Guardian [Internet] 11 July. Available from: <http://www.guardian.co.uk/technology/appsblog/2011/jul/11/branded-apps-flopping> [Accessed 4 April 2013]
- [11] Drossos D., Giaglis G.M., Lekakos G., Kokkinaki F., Stavradi M.G. (2007), “Determinants of Effective SMS Advertising: An Experimental Study”, *Journal of Interactive Marketing*, 7:2, 16-27.
- [12] Gartner, 2013*Forecast: Mobile App Stores, Worldwide, 2013 Update*,
- [13] Ghauri, P.N. & Grønhaug, K. (2005). “Research methods in business studies: a practical guide” 3rd edition. Harlow, England: *Financial Times Prentice Hall*.
- [14] Halligan B., Shah D., “Inbound Marketing: Get Found Using Google, Social Media, and Blogs”, *John Wiley & Sons Inc*, 2009.
- [15] Holland, J. (2010) “The role of mobile marketing communications in media strategy”, *Innovative Marketing*, Vol. 6, Iss. 2, pp 18-25.
- [16] Khan, S. (2012), *Opinion: Mobile is seeing shift from experimental to committed spend*. Econsultancy [Internet] 12 October. Available from: <http://econsultancy.com/se/nma-archive/47153-opinion-mobile-is-seeing-shift-from-experimental-to-committed-spend> [Accessed 21 March 2013].
- [17] Kim K.Y., Lee B.G., “Marketing insights for mobile advertising and consumers segmentation in the cloud era: A Q-R hybrid methodology and practices”, *Technological Forecasting & Social Change*, 2014.
- [18] Magrath V., McCormick H., “Branding design elements of mobile fashion retail apps”, *Journal of fashion marketing and management*, Vol. 17 No. 1, 2013.
- [19] Nielsen (2013), *A look across screens. The cross-platform report*”, June.
- [20] Okonkwo, U., “Luxury fashion branding, trends, tactics, techniques”, *Palgrave Macmillan*, 2007.
- [21] Persaud A., Azhar I. (2012), “Innovative mobile marketing via smartphone. Are consumers ready?”, *Marketing Intelligence & Planning*, 30:4, 418-443.
- [22] Shankar V., Balasubramanian S., “Mobile marketing: a synthesis and prognosis”, *Journal of interactive marketing*, vol. 23, 2009.
- [23] Tang H., Liao S.S., Sun S.X, “A prediction framework based on contextual data to support Mobile Personalized Marketing”, *Decisions support systems*, Vol. 56, 2013.
- [24] Varnali K., Toker A., “Mobile marketing research: the state of the art”, *International Journal of Information Management*, vol.30, 2010.

- [25] Watson C., McCarthy J., Rowley J., “Consumer attitudes towards mobile marketing in the smartphone era’, *International Journal of Information Management*, Vol. 33, 2013.

End Notes

¹ According to Gartner (2013), in 2012 annual downloads of mobile apps reached 64 billion, with a total revenue of \$18 billion. This trend is not expected to stop in the future: mobile app stores will see annual downloads reach 268 billion in 2017, with a total revenue of \$77 billion, growing at a rate of 27% a year between 2012 and 2017.

² AIDA is a database which contains comprehensive information on companies in Italy, with up to five years of history.

³ ATECO 2007 is the classification of economic activities, adopted in January 2008 by ISTAT. This classification is the national version of the European nomenclature, Nace Rev. 2, published in the Official Journal of 20 December 2006 (Regulation (EC) no. 1893/2006 of the European Parliament and of the Council of 20 December 2006).

⁴ Google and Apple with their operating systems (respectively Android and IOS) cover 70% of the European market and 93% of the US market (ComScore, 2013a).

⁵ For privacy reasons, the companies' names will not be mentioned.

⁶ According to the latest IDC report (February 2013), Android and iOS together made up around 95.7% of all smartphone shipments in the last quarter of 2013 (up from 91.2% in the year ago quarter). Android has grown more rapidly than iOS. As of last quarter, Android reached almost 80% of that 95.7% and shipped close to 800 million of the billion smartphones shipped during 2013, compare to iOS which held 15.2% of the market share and shipped 153.4 million units in 2013.

Analyzing Brand Values with a Semiotic Approach

*Marianna Boero, mariannaboero@libero.it
University of Teramo, Italy*

Analyzing Brand Values with a Semiotic Approach

Abstract

In the current competitive context consumers wish and exchange signs rather than objects, thus the trade and the exchange of products are being progressively replaced by the trade of signs, symbols and messages, intangible brand benefits that exceed the goods value in use. From this point of view, consumption becomes a language with its rules and its syntax. In order to favor the dialogue between different disciplines interested in the study of brand, this paper proposes a structural semiotic approach to investigate the coherence of a brand communication mix. Different studies on brand share a tendency to emphasize the symbolic and intangible aspects of the brand. We believe that semiotics, a discipline that extends the laws of structural linguistics to the analysis of verbal, visual, and spatial sign systems and focuses on the intangible dimension of texts, will contribute to the study of the brand and the “possible worlds” communicated.

Introduction

In the last fifty years, branding has become a core aspect of marketing and business strategy¹. As a modern concept, branding can be applied to everything from products and services, to companies, countries and even individuals, to produce an emotional and a psychological attachment with consumers and a financial value for the brand owner. Many studies on the topic have appeared in several disciplines and the concept has been progressively stretched beyond the product or service to emphasize the symbolic and intangible aspects of a brand. There is now a consensus that the brand occupies a strategic position between the issues that companies need to manage daily (Semprini and Musso, 2000: 439). The most innovative aspect is nevertheless the growing importance of the intangible elements such as references, symbolic paths, effects of meaning evoked by the brand. Indeed every brand possesses the characteristics of identity, promise, value and differentiation, features that create a relationship between the consumer and the brand. This stems from the consumption context, where the *symbolic value* overrides the *value in use* of the objects. Consumption becomes increasingly communication, image, and less and less function (Marrone, 2007). Brand-owners aim to exploit the symbolic content of their bid, charging it with added meanings to communicate with a consumer very different from the past, who considers products as means to express his identity. Products become signs, symbols and convey multiple messages.

The brand is a central element in the new competitive environment. From simple tool to ensure the product reputation and credibility, it becomes the absolute protagonist of the economic scene, the “intangible asset par excellence”² (Semprini and Musso, 2000: 65). It constitutes a framework of meaning around the product, gives him a cultural and social thickness, and at the same time makes it unique and multi-dimensional (Semprini, 1993: 59). The brand no longer has the tasks of presenting the product and convincing about its qualities: on the contrary, it gradually dissociates itself from the product and starts telling narrations, “based on the staging of *possible worlds* able to attract consumers” (Semprini, 2003: 105). These worlds are often configured as true parallel worlds, woven of values which consumers can decide to join, as the “solitary manliness of Marlboro, the discreet elegance of Armani, the conviviality of Buitoni, the seduction of Levi’s”³ (*ibidem*). The competition between products is therefore enriched with the competition of brands worlds, each of one has the aim of achieving customer loyalty. The crucial problem of the company is to establish a strong, distinctive, seductive brand image. The brand produces worlds, specific universes of reference, and these ones animated and gradually expanded over time (*ibidem*: 26).

In particular, with the advent of postmodernism brand emphasizes its emotional characteristics to establish a new type of bond with the consumer. In this regard Fabris and Minestrone (2004), in their work devoted to the brand, speak of the sensory and emotional values of the brand and their significance in building a lasting relationship with consumers. Marketing Aesthetics, Experiential Marketing, Emotional Branding, are new kind of marketing indicating the reorientation towards the emotional and affective contents of the brand. The experience, senses and imagination channels becomes new paths to access people wishes, transcending the mere materiality of the object and its tangible benefits. The mere functionality of a brand is not sufficient if it is not always enriched

with a *sensory experience* (Ferraresi and Schmitt 2006). Consequently brands should be able to provide consumers with highly emotional experiences, able to create a deep and immediate interaction and to relate effectively to the market (*ibidem*: 82).

Consumption as a language

In parallel to the increasing importance of the brand in corporate strategies, communication and sense gradually become part of the brand-core, giving centrality to semiotics and other disciplines interested in the study of communication. From a semiotic perspective, objects have communicated a universe of meanings since ancient times: we can think of the expressive value of a dress, of body decoration, but also of a sword, helmet or armor. Through the selection or the use of an object, people expressed moods, desires, hopes and identities. However in postmodern society the product performance is exceeded by the semiotic meanings of objects (Semprini, 2003) and “the space that goods have in the semiotic universe is no less important than that they occupy in the shelves of sale”⁴ (Fabris, 2003: 49). The world of objects, for consumers, becomes a reservoir of symbols, a possible narration of their identity, thus an “engine of belonging”. The food, a dress, a cosmetic have partly lost their primary function (their *value in use*) to become communication. For example, behind the purchase of a sports car there can be the promise of youth or manhood; behind the purchase of a perfume there can be seductiveness, and so on. In this perspective, advertising has a role that goes beyond its traditional marketing function because, compared to a virtual polymorphism of objects, it helps to narrow the field of possible meanings, to select those most culturally current and desirable and to fix them on the object.

An example of how the value in use of an asset tends to be progressively obscured by a symbolic value is given by the motorcycle: in this regard Fabris (2003: 80) highlights how the traditional motivation for using this means of transport has given way to symbolic nature gratifications, such as courage and individualism. Riding a motorcycle takes on the meaning of conventions challenge because through this means people can go away from the usual paths, passing motorists slowed by traffic queues. Only those who have courage and quick reflexes can ride a motorcycle: with a motorcycle a man wins admiration and respect without entering into direct competition with others, and becomes a free man, for whom the rules and the common laws don't work. In the new scenario the motorcycle becomes a real cultural symbol, a myth fed by a vast filmography focused on extraordinary characters, like Steve McQueen in *The Great Escape* or Marlon Brando in *The Wild One*.

Another example done by Fabris is about the jeans that emphasize, in addition, the continuous process of *de-semantization* and *re-semantization* that accompanies the use of certain products. Initially, jeans were the uniform of the miners, railway workers and all those who were in need of a practical, economical and durable garment: they didn't wear jeans for ideological reasons, but only for working. Over time, then, jeans began to take on different meanings depending on the changing historical periods: the primacy of free time, sexual liberalism, as opposition to the clothing models of the time, the statement of informality, and so on. In the eighties jeans changed meaning and are integrated into the system and normalized, remaining strongly associated with youth culture. Even high fashion designers begin to draw jeans, presenting them in a highly customized and branded version, or as an inter-generational means, worn by men and women of all ages and repurposed in a myriad of versions which, in some cases, become a real cult product of mass consumption (for instance Levi's 501).

At the base of the new interpretation of consumption there is a process of *dematerialization of society*. What was once called the consumer society is becoming the less materialistic society never existed, where the value in use of an asset tends to be progressively overshadowed by its symbolic value (Fabris 2003: 68). On one side we see the increasingly miniaturization process of the products, ever lighter and smaller and smaller, and the shift to a service economy; on the other in postmodern society products become signs, a form of language that has its own internal rules and conventions. This implies that we can communicate even making use of the new alphabet of objects: we consume signs before products, and we prefer to invest in new forms of sociality, structured around emotions, passions and feelings to live together in the space of consumption.

Semiotics and Marketing

Because of the growing complexity of consumer behaviors, brand-owners look for new analytical tools, as the phenomena of consumption become more symbolic and cultural and the traditional tools of investigation tend to be less effective (Semprini, 1990: 39). As a result of changes in the competitive environment contacts between semiotics and marketing have become more frequent and systematic. On one hand, semiotics plays an increasing important role within marketing as a guide to intangible and social aspects of communication. On the other semiotics shows a renewed interest in disciplines such as sociology, marketing and ethnography, confirming its operational as well as theoretical nature.

The first semiotic approach to the marketing research was carried out by Jean-Marie Floch in the Nineties. Floch (1990) analyzed a number of cars advertisements and tries to understand the different ways in which the object machine can be enhanced. Four types of possible valorizations emerge from his analysis:

- *Practical valorization*: corresponds to the values of use, conceived as opposing the existential ones, also possible to be designated as “utilitarian values” (Floch, 1990). Its aim is eminently concrete and utilitarian and the product will be appreciated for being practical, functional and adequate to its function;
- *Utopian valorization*: corresponds to the basic values, conceived as opposing the practical ones, also possible to be designated as “existential values”: identity, life, adventure, etc. (Floch, 1990). According to this valorization, the product will always be the accomplishment of something, touching expectations such as self-fulfillment or identification;
- *Ludic valorization*: corresponds to the denial of practical valorization and centers itself on values of gratuitousness (of pleasure or aesthetic) such as luxury, refinement, impulsive act or “small act of madness” (Floch, 1990: 120). It lays at an emotional and sensorial level, the product having to provide pleasure, amusement;
- *Critical valorization*: corresponds to the denial of the utopian valorization, seen as a withdrawal from the existential values through the logic of calculation and interest, characterized by separation and comparison (Floch, 1990). Quality/price, economy, innovation/cost will be important criteria, frequent in critical evaluation.

These fundamental values are projected on the semiotic square as portrayed in Fig. 1:

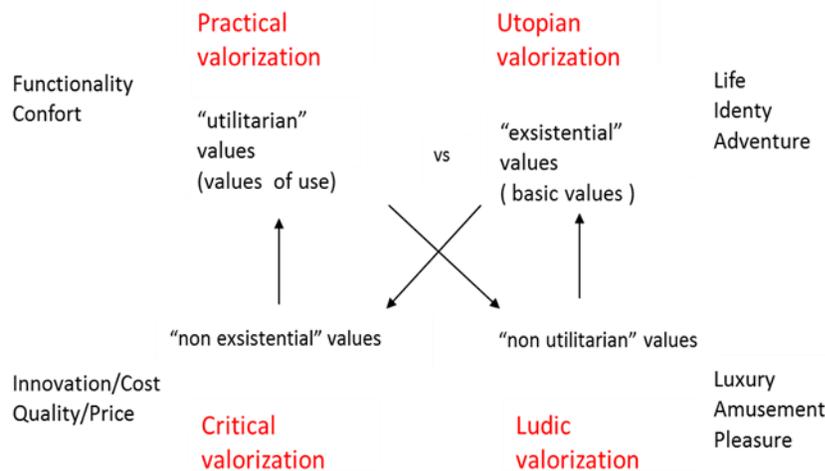


FIG. 1

The positioning of these valorizations in the “semiotic square” allows one to obtain a typology of the relative positions and, even more importantly, of its relationships. This produces four classes which represent all the possible

forms of rationality that consumers (in a more or less conscious way) put in place at the time of purchase, and it is clear that economic calculation is only one of the forms of rationality that consumers can implement. Advertising strategically uses these generic dimensions to targeting a specific audience. It is important to remember that, according to the analysis of Floch, the object-machine itself is marginal, and it becomes relevant only when the subject covers it with certain values. Floch provides an introduction to the potential offered by a semiotic approach to a variety of marketing and communication problems or situations (Floch 1990, 1995). Key semiotic concepts and principles are gradually introduced using real life studies. The semiotic square of Floch has been widely used to describe the positioning of brands and products. However, “the limitation to a particular set of universal values constitutes a form of reductionism, of which the advantage in terms of comprehension and clarity do not attain to counterbalance the inconveniences linked to psychodemografich variations” (Rossolatos, 2012: 25).

Semprini (1992) returned to the square of Floch and translated it into a semiotic brand mapping model (Fig. 2). It is a scheme that crosses two opposite categories: the main category “practical vs. utopian” is qualified and specified by the second category “critical vs. ludic”.

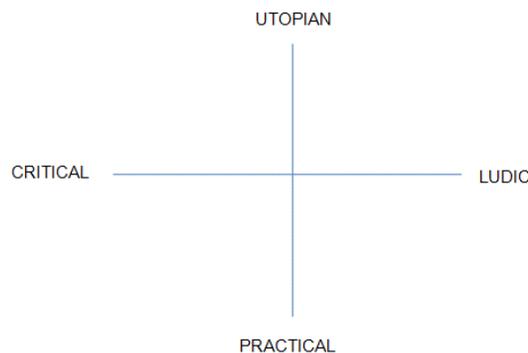


FIG. 2

Through this scheme it is possible to identify the fundamental values of a text and its positioning. In the west, where critical valorization prevails, we find all the values linked to the need of understanding the meaning of things. More specifically in the north-west, closer to the utopian dimension, there is the promotion of culture and knowledge; in the south west, however, the reflection gives way to the analysis and the need to reconstruct the causal connections. On the east, dominated by the valorization of ludic, the pursuit of pleasure and emotion prevails but in the north-east, close to the utopian dimension, the valuations of expression and creativity are stronger than in the south-east, where the values linked to evasion and relax prevail. The northern area is dominated by the utopian valorization, with values that are projected towards a future universe, near the critical pole (vision, future, collective), and more individualistic values near to the ludic pole (innovation, individual happiness). Finally, the south, dominated by the practical valuation, presents immanent values and objective: but if we approach the critical dimension, the practical assumes a certain “engineer logic” (the values are functionality, performance, technical), while if we get closer to the ludic pole practical values are part of a more emotional and psychological logic (cheerfulness, friendliness, emotion).

Compared to the semiotic square of Floch, Semprini’s mapping seems to offer several advantages. It provides a conceptual representation familiar to marketers and allows us to understand not only the differences between the various categories, but also the possible continuum that remains between value and value, between term and term (for example between the “practical” and “critical” evaluation there are various intermediate shades, such as reasoning, rationality, continuity).

Semprini (2005) also introduced the model *Brand Project/Manifestations*. This model involves two levels of analysis: the brand project, or brand identity, and all the brand texts, or brand image (Fig. 3).



FIG. 3

As regards the identification of the brand project (Semprini, 2005), it is necessary to extrapolate the brand identity values through the investigation of the official statements of the company, gathered through questionnaires and through the analysis of their mission. This type of survey allows us to understand what are the values that companies want in their identity, the concept at the base of their existence. Every manifestation of the brand should therefore be considered as a sentence in itself, a complete semiotic structure, a micro-story with a deep meaning. All the brand texts have the same theoretical status, but do not have the same weight or the same importance in reaching the target audience. The analyst's task is to start from the manifestations (texts analysis) and to identify the core values. The objective is to evaluate the consistency between the values established and communicated by the company and the values actually conveyed by the texts. Indeed, on one hand we have the intentions, the goals of those involved in the brand design; on the other hand the textual values, beyond these intentions. Semiotics focuses on the second aspect, on what texts communicate. The semiotic analyst then starts from the text to identify the set of meanings that it condenses. Of course, the more texts reflect with efficacy the brand identity values, the more there will be a harmonic perception by the target.

Another author who attempted to furnish a comprehensive brand semiotic theory is Ceriani (2001; 2007). Ceriani's purpose is to yield a theoretical base for unifying different aspects of branding, including positioning, segmentation, communication, but also to employ this theoretical base as a platform for long term brand management. The author christens this platform "the brand identity mix", comprising the ensemble of elements relating to the marketing mix of a company. Ceriani explores the way semiotic can intervene in the management of brands, products and companies. The hypothesis is that semiotics offers a methodological contribute to the communication mix control and management. The departure point is the category of "concept", that is a set of traits, values that the company decides to award a brand. The concept is "a core of meaning not even put into discourse."⁵ We can see a convergence with Semprini's definition of brand project. According to Ceriani, the semiotic intervention concerns different stages. First, a scenario analysis is necessary to highlight the dominant meanings with respect to a certain theme or topic. For example, if we speak of a technological product, a scenario analysis will mean trying to understand the dominant lines in a certain sector. The study of scenery can be done either through a desk analysis (analysis of texts, such as articles, brochures) and through a field analysis. Secondly, the semiotic analyst should work in teams to devise alternatives concepts: the aim is to develop other pathways than those tracked in order to have alternatives. Each of these two phases will be followed by focus groups with consumers: it is a work of control with respect to the trends indicated in the first and second phase.

The communication channels that determine the marketing mix of the company should have a consistency with the concept. Indeed, the effectiveness of semiotics consists in an strategic action aimed to understand if the company communicates in a coherent manner. According to Ceriani semiotics can also intervene to some extent in the design and in the production of the final product as well as in forecasting trends. These studies go towards a very operational idea of semiotics and have sparked several debates because they seem to call into question the exclusively descriptive nature of semiotics in favor of a significant applicative breakthrough.

A semiotic analysis of the Chanel brand

In the previous sections we have seen the interactions between semiotics and marketing, retracing the main semiotic studies applied to the world of advertising and consumption in general. In this section we will try to clarify the concepts and theories set out above by showing a case study. More precisely, we will focus on the Chanel brand⁶ and we will analyze its brand identity and image by applying the Semprini's model described above.

To make an effective analysis we should consider different levels. According to Semprini, the first is the identification of the brand identity, or the values that characterize the brand essence and which are the basis of a brand. In the case of Chanel we can extrapolate these values by analyzing the history and the mission. Chanel fashions and the Chanel brand were created by Gabrielle "Coco" Chanel, who first learned how to sew while living in a nunnery where she was raised after her mother died. The first Chanel retail store was opened in Paris in 1910 and exclusively sold hats. Chanel's next two stores in France also sold clothing which she designed and sewed herself. The Chanel brand is best known for its little black dress, tweed suit, quilted handbag two-tone shoes and "the perfect red lipstick". Coco Chanel died on January 10, 1971, and Karl Lagerfeld took over leadership as chief designer of the Chanel business in 1983. The Chanel company mission statement is: "To be the Ultimate House of Luxury, defining style and creating desire, now and forever."⁷ We can see that the fundamental values are those of style, simplicity, luxury, timeless fashion. These are the values that the brand wanted to be its distinctive features.

The second step is the analysis of the texts belonging to the brand mix, as the web-site, the name, the logo, the social page, print and television advertising, catalogs, fashion shows, events, flagship stores and boutique. Indeed all these texts are modes of expression of the brand's values, which go under the name of brand image. The analyst task is to verify the correspondence between *identity values* and *text values*. If there is this correspondence, the text will be coherent, thus effective and consistent form a strategic point of view. Chanel is characterized by a strong communication coherence, based on signs deeply rooted in the collective imagination (the little black dress as a sign of timeless fashion, the earrings and the necklaces of pearl as symbol of elegance, the hat as symbol of new femininity), and a clear identity conveyed by coordinated channels. The identity is also characterized by a chromatic consistency: in all the brand communication channels black and white and pastel tones are the dominating colors.

One of the most famous Chanel text is the logotype (Fig. 4). Symbol of the house, it consists of two interlocked letters "C" – probably for "Coco Chanel" – and was registered as a trademark in 1924. Its origin is uncertain and is traced, according to the sources, in a medallion in the Renaissance villa Château Crémant, in the hills of Nice, belonged to a Coco Chanel friend, Irene Bretz, or in the symbol dating back to the sixteenth century "Candidior Candidis" (the most beautiful of the beautiful), adopted by Queen Claude of France and, later, by Catherine de Med, viewed by Coco at the Chateau Chaumont or at the royal castle of Blois.



FIG. 4

The logo stands out in black on a white background without other symbols or decorations. The absolute absence of frills, the geometric clean lines and a preference for the white and black are distinctive characteristics of the entire work of the designer. Coco Chanel revolutionized haute couture, replacing the sumptuous feminine dresses with simple linear models. The twenties and thirties were marked by the new idea of fashion introduced by the designer. Chanel not only gave a twist to the world of fashion, but contributed to break for the first time the wall that separated the female gender from the masculine one, with a stylistic contamination between the two genres. The Chanel logo is representative of the Coco Chanel personality: it expresses uniqueness and originality, a different way of being, a new femininity.

Advertising is another important communication tool. In print advertising "bon-ton" representations prevail, with sobriety, lightness and elegance in the foreground (Fig. 5). The choice of models with delicate features reflects

grace and style. The product is supported by the human body and acquires meanings thanks to the movements and gestures. No part of verbal communication is entrusted to the images and it is noteworthy the evocative power of the photo. Chanel, as well as majority of luxury fashion brands, prefers using more advertisements rather than spots. Indeed we do not find television spots for Chanel clothes, but only for Chanel perfumes, that follows a different communicative approach. The brand, nevertheless, uses web films, which are characterized by a contamination between the language of advertising and the language of cinema, giving the product a higher connotation.



FIG. 5

More recently digital brand channel as websites and social network as Facebook or Twitter have acquired a key role in the communication mix as means able to dialogue with the postmodern consumer (Fabris, 2008). In the website an international dimension overrides, with a strong reference to the world of high fashion and fashion shows. Luxury is placed in the foreground and the valuation of simplicity, combined with that of the style, is recurrent. A visual minimalism recalls the expressive characteristics of the brand. Importance is given to the history and tradition: indeed, we see a timeline, which remember the more recent characteristic of the Facebook diary, which allows visitors to retrace the most important stages in the brand history (Fig. 6). Focus is on tradition and experience, together with the enhancement of the dream: a girl of humble origins becomes a revolutionary in the field of fashion, the universal symbol of class and style. The social wall presents a more accessible language, but it always maintains a distance with the public. On one hand there is the world of haute couture, on the other hand the world of the consumer. Here we find simplicity and expressive minimalism too, although the value of elegance fades into the background. There are all the visual characteristics typical of the brand.



FIG. 6

The Chanel dream continues in the boutique and flagship stores (fig. 7). Here the windows have the most important role, narrating stories.

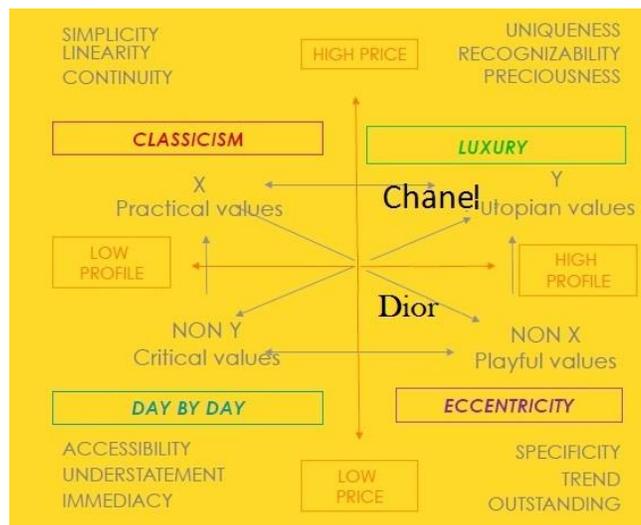


FIG. 7

As for the logo, even in retails the story is set on a neutral background, in the foreground, remembering the typical colors of the brand. In the interiors a minimalist exhibition prevails, with an experiential path based on the essentiality of communication. Currently Chanel has international retail store locations in more than 120 countries, with separate Chanel retail stores for fashion and accessories, fine jewelry, beauty, and eyewear. The Chanel global headquarters are located where the Chanel brand had its beginnings, in Paris, France.

This short excursus about the Chanel communication mix allows to understand that Elegance, Simplicity, Style, Luxury are the most significant brand text values. Thus we can see the presence of a strong communicative coherence between brand identity values (brand project) and text values (manifestations). For a complete analysis these values should then be placed on the semiotic mapping to carry out a comparison. In this case we also consider the identities of competitors and their values.

FIG. 8



For example, the mapping shows a contrast with the Dior universe, closer to the ludic or aesthetic dimension. Chanel, instead, proposes a way of living and being, and is closer to the utopian pole. For luxury fashion, the practical

valorizations is more rare and the critical one is almost absent, even if we find exceptions. Towards this analysis we discover a general trend in the field of luxury fashion and we can also compare different brands at the level of values⁸. The case that we rode helps to understand how it is possible to apply semiotic tools in the marketing field. What is the added value given by the semiotic analysis? It allows to check the consistency of communication and provides important information that may affect the final product. It is a type of descriptive methodology, which recognizes the importance of comparisons although some authors have recently proposed its use also to make predictions and contribute to the creative phase of production.

References

- [1] Ceriani, G. (2001) *Marketing moving: l'approccio semiotico. Analizzare il mix di comunicazione, gestirne gli effetti di senso*, FrancoAngeli, Milano.
- [2] Ceriani, G. (2007) *Hot Spots e sfere di cristallo. Semiotica della tendenza e ricerca strategica*, FrancoAngeli, Milano.
- [3] Fabris, G., *Societing*, FrancoAngeli, Milano.
- [4] Fabris, G., Minestrone, L. (2004) *Valore e valori della marca. Come costruire e gestire una marca di successo*, FrancoAngeli, Milano.
- [5] Ferraresi M. - Schmitt B. H. (2006) *Marketing esperienziale. Come sviluppare l'esperienza di consumo*, FrancoAngeli, Milano.
- [6] Floch, J. M. (1990) *Sémiotique, marketing, et communication*, Puf, Paris.
- [7] Floch, J. M. (1995) *Identités visuelles*, Puf, Paris.
- [8] Marrone G., *Il discorso di marca. Modelli semiotici per il branding*, Editori Laterza, Roma-Bari, 2007.
- [9] Okonkwo U., *Luxury Fashion Branding: Trends, Tactics, Techniques*, Palgrave McMillan, New York, 2007.
- [10] Rossolatos G., *Towards a semiotics of brand equity*, e-book, <http://grossolatos.blogspot.it/>, 2012.
- [11] Rossolatos G., *Applying structuralist semiotics to brand image research*, e-book, <http://grossolatos.blogspot.it/>, 2012.
- [12] Semprini A. (2003) *Lo sguardo sociosemiotico. Comunicazione, marche, media, pubblicità*, Franco Angeli, Milano.
- [13] Semprini A. (2005) *La marque, une puissance fragile*, Vuibert, Paris.
- [14] Semprini, A. - Musso P. (2001) *Dare un senso alla marca*, in Lombardi, M. (2001) *Il dolce tuono*, FrancoAngeli, Milano, pp. 43-66.
- [15] Traini S. (2008) *Semiotica della comunicazione pubblicitaria*, Bompiani, Milano.

End Notes

¹ The origin of brands comes from the times when early cattle-rearing men stamped their ownership on their livestock by burning a mark of their name or identity on the cattle, to distinguish on cattle-farmer's stock from another's. Through this means of differentiations, the good quality cattle could be easily identified. The current definition of a brand has however evolved from marks, names, logos and shapes to elaborate marketing development and strategies. The results is the creation of something powerful and consistent, which has the ability to produce emotional and psychological attachment with consumers and financial value for the brand owner (Okonkwo, 2007).

² My translation from the Italian original version.

³ My translation from the Italian original version.

⁴ My translation from the Italian original version.

⁵ My translation from the Italian original version.

⁶ In this paper we will not consider Chanel perfumes and accessories.

⁷ Farfan B., "Mission, Values, Headquarters & History of Chanel Designs and Retail Stores", <http://retailindustry.about.com>.

⁸ We should not confuse the positioning of values with consumers perception (Traini 2008): semiotics is not interested in consumers opinions, but in the texts narrations and investigates consumer perceptions only as an ex-post way of interdisciplinary controls.

⁹ Contact the author for the list of references.

**How Companies Can Contribute to Territorial-identity Development:
Empirical Evidence from Italian Businesses Cases**

Angelo Bonfanti, angelo.bonfanti@univr.it

Paola Castellani, paola.castellani@univr.it

Chiara Rossato, chiara.rossato@univr.it

Department of Business Administration, University of Verona, Italy

How Companies Can Contribute to Territorial-identity Development: Empirical Evidence from Italian Businesses Cases

Abstract

This study aims to contribute to the development of the knowledge on intangibles management by analysing the territorial-identity concept from a strategic competitiveness perspective. The purpose of this study is to clarify the territorial-identity concept by exploring and highlighting its dimensions and determinants. This study considers the perspective of two historical Italian companies that have long been embedded in their territory. By integrating a literature analysis with well-documented case studies, this study proposes a conceptual framework to capture and explain what companies can develop at the local level in order to improve territorial identity.

Introduction

In a globalised world where interconnection and standardisation in business prevail, competitive challenge for local areas needs to overcome the de-territorialisation processes. Although several studies (e.g., Zanon 2011) highlight that infrastructure projects are at the basis of re-territorialisation processes, we argue the importance of developing strategic abilities of differentiation related to the knowledge-economy principles (Rullani 2004). The differentiating element is not the material product but the intangible value that accompanies the goods' design, production and sale: it particularly resides in the meanings, services, experiences, and availability of collaboration to create relationships with stakeholders who are hidden behind the material product. As such, local areas can increase their competitive advantage and meet the challenges of globalisation by creating, developing or recreating their identity (Levi 2003).

This study intends to stimulate the debate on territorial identity, an issue that has received less attention from a strategic-management perspective. Specific studies on territorial identity have been conducted in Italy (e.g., Baccarani and Golinelli 2011; Rullani 2013), with a focus on company-territory relationships.

Although many of the contributions to the literature on territorial identity examine the connections between identity, territory and competitiveness, there is no specific study that explores the territorial-identity concept for the purpose of increasing territorial competitive advantage.

To discuss this issue it is first important to understand what is meant by the identity of a territory or a local area. This concept is complex because there are many terms and meanings applied to this concept from a number of disciplines. The terms 'territorial', 'local' and 'place' are most frequently used in the social sciences such as geography (e.g., Raagmaa 2002; Magnaghi 2003; Pollice 2005; Luukkonen and Moilanen 2012); environmental psychology (e.g., Bonaiuto et al. 2002; Carrus et al. 2005; Gifford 2007; Lewicka 2008); environmental policy and governance (e.g., Happaerts 2012); viticulture and agri-food (e.g., Cesaretti and Scarpato 2010; Rocchi and Gabbai 2013; Begalli et al. 2014); place marketing (e.g., Erickson and Roberts 1997); and tourism management (e.g., Hallak et al. 2012). In this work, such terms are used interchangeably.

The aim of this study therefore is to clarify the concept of territorial identity by exploring and highlighting its dimensions and determinants. Although we are aware that territorial identity is the result of the contribution provided by all stakeholders of a territory (Baccarani and Golinelli 2011), in this study we consider exclusively the perspective of historical companies that have long been embedded in the territories of the case studies. We examine the manner in which two north-eastern Italian firms operating in the grappa industry contribute to creating the territorial identity of the Bassano del Grappa territory (Veneto region). By integrating a literature analysis with well-documented case studies, we propose a conceptual framework to capture and explain the territorial-identity concept to serve as a starting point for future studies.

This study presents a literature review on territorial identity, followed by a description of the methodological approach that was used to research. After describing and discussing the two historical firms'

experience of developing the identity of the territory in which they operate, theoretical and managerial implications are discussed. This study closes by presenting its limitations and proposals for future research.

Territorial-identity concept in literature

This literature review is executed through an analysis of the concept of territorial identity in the interaction between place and identity, particularly as theorised by scholars of geography, and by highlighting the main characteristics of territorial identity.

Territorial identity is an elusive concept that can be defined as the qualities that make a place capable of being specified or singled out, as well as unique and separate from other places (Erickson and Roberts 1997). Territorial identity is a concept rich in meanings such as the ‘uniqueness’, ‘singularity’, ‘specificity’, and ‘authenticity’ of local/regional material and immaterial assets, systems and networks (Roca and Oliveira 2007, 435). It can also be interpreted as an ‘identitarian relationship connecting a specific community to its lived space’ (Caldo 1996, 285). In this sense, territorial identity is not exclusively related to the mere spatial dimension of identity, but is used to express the relationships of belonging that create ‘territory’. Territory is a ‘lived space’ (Frémont 1978) because it incorporates both the physical dimension of the geographical space and the social dimension of the relational space. Therefore, territory is an ‘human space’, it is built over time as a product of a process of cultural sedimentation; it is a process that focuses in the identity relationship that develops between a community and the space in which it is located. That is, territorial identity is a self-referential process established by a community that takes possession of a culturally default spatial context (Pollice 2005, 75-76).

In addition, territorial identity is not an abstract concept but a fundamental component of any place (Pollice 2005). It is closely related to the concept of ‘genius loci’, which is the perceptual manifestation of territorial identity as the unique set of physical characteristics, cultural messages and emotions that makes the place what it is, that makes it different and unique to any other place (Artusi 1996, 3).

The identity of a territory can be also defined in relation to its flows and networks with other places, both near and far, generating a condition of interdependence and modifying the original and historical distinctive features of the territory. While in the past, the inhabitants of a place felt a sense of belonging to a place through its history and by cumulating mostly local experiences, emotions, and relationships, today, in addition to these distinctive elements that come from the past, companies, people and communities have learnt to hybridise the experience of the places with the experience of global networks (Rullani 2013).

Fundamentally, territorial identity presents three characteristics.

First, identity is not a static, but a dynamic concept (Pollice 2005). It is the result of a continuous interaction between a specific community and its relational space. As territory as a space of belonging is an affective, social, and symbolic product, if local actors trigger mechanisms of identification, they can contribute to the creation of a retrospective and perspective local identity (Dai Prà 2001).

Second, territorial identity is a process because there is no single identity of a territory but a succession of identities (Raffestin 2003). It can be understood as both the cause (‘matrix’) and effect (‘target’) of the territorialisation processes (Turco 2003). As cause, it means that local identity supports the development process by means of a set of conditions providing opportunity and obstacles to actions. As effect, it can increase the specificities of a place and contribute to the consolidation of the sense of belonging to the local community. Territorial identity is related to local development because it orients both collective actions and territorialisation processes. In this sense, a strong territorial identity stimulates the processes of endogenous and self-centred development, and is able to predetermine directly or indirectly objectives and strategies of local development. It can also contribute to the development of innovation processes at the local level. Territorial innovation is successful if it is the result of choices shared by local community members and stakeholders operating in the territory. Such sharing is achievable if a strong identity exists in a territory. As such, self-referential behaviours are avoided, and social and territorial development is stimulated (Pollice 2005).

Third, territorial identity is not a set of exterior manifestations, but of interior values such as a sense of belonging, social identification and cohesion, as well as a shared representation of a collective self.

By means of territorial identity, any territory can become an actor of its own development. The place is no longer a simple physical space, but becomes an active entrepreneurial subject (Schillaci and Gatti 2011) that is the source of not only material, but also immaterial resources (Sthor 1984) such as entrepreneurial propensity, cultural level, collaborative spirit, behavioural ethics, and aesthetic sensitivity.

Method

This study is based on an inductive approach. Through this approach, proposing specific cases allows one to attempt to draw more general considerations.

The research strategy consisted of two case studies. Italy has many areas that have distinctive characteristics of territorial identity. Through theoretical sampling (Patton 2002), we have chosen Bassano del Grappa (Veneto region) as the area of investigation and identified two historic companies that operate in the same industry (grappa) within that territory, and have contributed to the development of its territorial identity. The case-study companies are Ditta Bortolo Nardini Spa and Poli Distillerie Srl. Effort was made to integrate the (poor) existing literature with the uniqueness of the businesses' experiences to begin a theory-building activity (Eisenhardt 1989; Eisenhardt and Graebner 2007). It is believed that such unique businesses experiences offer significant insight into understanding the concept of territorial identity.

To collect data, we consulted secondary sources and conducted in-depth interviews with each of the businesses, as well as consulted their websites. The interview with Ditta Bortolo Nardini Spa was conducted in November 2013 with the external-relations manager, Marta Lazzarin, and for Poli Distillerie Srl, the entrepreneur Jacopo Poli and the external-relations manager, Lorna Geremia, were interviewed between May and June 2014. In both cases, the interviews were conducted in a semi-structured manner. The following two principal questions were submitted to the interviewees: 1) In your opinion, what are the fundamental elements that characterise the territorial identity of Bassano del Grappa? 2) What initiatives has your company activated locally to build and enhance the identity of the territory in which it operates? The duration of the interviews was 40 minutes each and the interviews were audio-recorded and later transcribed.

The results of the case studies are the basis for identifying the dimensions and determinants of territorial identity in this study.

Contribution of historical companies to the development of territorial identity

Before examining the case studies and the contribution that each company makes to the enhancement of territorial identity, it is necessary to clarify some aspects of the identity of Bassano del Grappa that emerged from the voices of the case-study companies.

Bassano del Grappa is a border town whose identity is closely related to the Brenta canal that runs through it. For centuries, the Brenta has been a crucial passage for the conquest of the plain cities by various invaders of the region. However, it has also represented an important means of connection with Europe. Bassano del Grappa has long been a land of conquest and the people of the town are aware of their limited forces, and therefore, have always desired a peaceful relationship of subordination with the different rulers so that there was an atmosphere that could be beneficial to the thriving traditional peasantry and artisan culture. Over the last four centuries, it has developed a variety of activities related to agriculture such as viticulture and grazing, as well as industry-related activities such as printing, woodworking, ceramics, wool, and the distillation of grappa.

"The old bridge, the castle, the squares, the beautiful palaces, the walls, the churches, make it a closed and also open citadel at the same time. People are industrious, but they don't forget the pleasure of life, they are prone to diplomatic mediation, but without byzantine malice, their minds are geared to international trade, but with their feet firmly on the ground" (interview with Jacopo Poli).

Bassano del Grappa is a vibrant town thanks to the many cultural events that animate it during the year, and its atmosphere that creates a sense of cordiality that is much appreciated by many visitors. Highlighting these traits of Bassano del Grappa's identity, which are closely related to those of the general area of Pedemontana Veneta

in which Bassano del Grappa is located, is intended to emphasise the features that are most relevant to the research objective for each case study.

Ditta Bortolo Nardini Spa

The story of the acquavite Nardini begins in 1779 when Bortolo Nardini opened his first distillery in Bassano del Grappa with an attached grapperia on the Ponte Vecchio, the old bridge designed by the architect Palladio that is the symbol of the town. Nardini is member of two prestigious associations that aim to preserve and enhance the cultural value of this historical company. The first is Les Henokiens, an international association of family and bicentenary companies (<http://www.henokiens.com>), and the second is Historic Place of Italy, an association that promotes the oldest and most prestigious establishments in Italian history (<http://www.localistorici.it>).

The history of Ditta Bortolo Nardini Spa has been marked by an alternation of periods of glory and prosperity, as well as periods of difficulty that the company has faced with a tenacity and passion that is typical of this area. The years of World War I presented difficult times for Bassano del Grappa, and were the sad scene of major battles. However, these years also marked the luck of grappa much appreciated by the soldiers at the front. After the war, the appreciation the people had developed for the taste and smell of brandy did not lose popularity, and spread among young people, becoming a symbol of Bassano del Grappa. World War II marked another difficult period for Bassano del Grappa and for the distillery, whose products were often confiscated by the German troops and United States Army. In addition, the retreating German army completely destroyed the Ponte Vecchio, which was subsequently reconstructed by the Alpini, the Italian Mountain Troops (<http://www.nardini.it>). The 1950s and 1960s brought a boom for the distillery, as there was an expansion of its admirers throughout Italy and in the world, which meant the company opened a second location in Monastier di Treviso.

The recipe of grappa remained unchanged over the centuries, handed down from generation to generation, although its production was modified with innovations that have improved its quality. This embodies the truth of Nardini's mission: 'innovation in tradition'.

This outline of the company history serves to identify some aspects of the corporate life through which the Nardini distillery contributes to the development of the identity of the territory in which it operates. In particular, Nardini's actions in support of the identity of Bassano del Grappa can be characterised into four broad areas: 1) communication; 2) architecture; 3) art; and 4) promotion of social and cultural events.

The aspect of the company's communication is exemplified by the logo of Ditta Bortolo Nardini Spa being the Ponte Vecchio of Bassano del Grappa, the place where is located also the company's grapperia. The Ponte Vecchio is the symbol par excellence of the town; it is synonymous with the culture, history and architecture of the area and is an important source of tourism attraction. Ditta Bortolo Nardini Spa's action within this territory is also important in architectural terms because of the design and realisation of the Bolle building. This building represents a significant contribution of the Nardini family to Bassano del Grappa's contemporary architecture because the family commissioned the architect Massimiliano Fuksas in 2004 to create this building to celebrate the 225th anniversary of the company. This building was also created to extend the awareness of the world of distillates and liqueurs: the interior of the building hosts a research laboratory and a quality-control centre, as well as an auditorium in which to receive customers and an ever-growing number of visitors. In addition to the desire to create a more functional research space, the Nardini family invested in this architectural structure to leave a sign of the value that can be left to future generations (Bonfanti et al. 2013). Ditta Bortolo Nardini Spa has transmitted a powerful message of the company's profound connection with its territory.

The Nardini family have also demonstrated special attention to and passion for art, creating Garage Nardini to unite the Nardini family's passion for contemporary art and the town of Bassano del Grappa. The Garage Nardini is a space in Bassano del Grappa created to present the creativity of artists from all over the world. The Nardini family also promotes culture and art by sponsoring and hosting dance festivals. Moreover, Ditta Bortolo Nardini Spa promotes many events, as well as national and international conferences, including Welcome to the Year 2050. The promotion of these events reflects the company's sense of responsibility towards the community in which it operates and is a representation of the company's particular attention to the social dimension of its activities.

The role of Ditta Bortolo Nardini Spa in promoting socio-cultural events should be emphasised in its role in creating the tradition of the meeting place by being an important destination dedicated not only to visitors but also, and primarily, to the people of Bassano del Grappa.

Poli Distillerie Srl

“Only roots that go deep into the land can give such an ethereal fruit as Grappa” (<http://www.poligrappa.com>).

A sense of attachment, deep love and knowledge of their territory characterises the Poli family for many generations. Over a period of five hundred years, the Poli family has moved three times, covering the distance of 18 km, from the native Gomarolo to Schiavon, a village of the Pedemontana Veneta, near Bassano del Grappa, where the family now lives and is current headquarters of the company.

The origin of the Poli history is GioBatta Poli who was a manufacturer of straw hats, and in 1892, the owner of an inn in Schiavon. GioBatta had a great passion for grappa, and chose to follow this passion by building a small distillery assembled on a handcart, going from house to house to distil marcs. During the two World Wars, the production of grappa was very fruitful, as the grappa was very pleasing to the Germans who supplied the distillery with the sugar needed to produce the liquor.

Since the 1980s, the new generation of the Poli family have joined the company, which has enabled a radical change. This change has been based on an awareness of the differences between past and present customers. While in the past the consumption of grappa was essentially the result of a local custom, now tasting grappa distilled is for consumers a sensory experience positively affecting their physical and spiritual well-being.

As such, today the Poli Distillerie Srl possesses an artisan character and ensures research on the quality of the distillate, which has led to it reducing by one-fifth the amount of grappa produced by previous generations.

The mission of the Poli brothers is to change the image of grappa around the world to create an image of a refined product that is a symbol of Italy such as cognac is for France and whiskey is for Scotland. The company is a member of two associations: the Unione Imprese Storiche Italiane, which includes national ultra-centenary companies with the aim of valorising Italian entrepreneurial heritage (<http://www.unioneimpresestoriche.com>); and the Museimpresa, which brings together Italian companies that have set up an their own industrial museum or archive (<http://www.museimpresa.com>).

This history demonstrates that there is a close connection between the Poli Distillerie Srl and its territory, not only with regard to its production, but also to the existence of a territorial rooting that reflects a pride of belonging to that territory.

Poli Distillerie Srl’s corporate action to support territorial identity is mainly developed in two directions: 1) ‘formative’ communication; and 2) the reappropriation of knowledge, memory and local culture, as well as the diffusion of the entrepreneurial culture.

The geographical aspects, the characteristics of identity, and the ‘soul’ of the ‘Poli territory’ are disseminated on a communicative level through means such as the company’s website. Table 1 provides a summary of the contents extracted from Poli Distillerie Srl’s online communication, which not only informs on issues related to the business and the local peculiarities, but also promotes cultural growth.

From this description of the territory emerges the initiative promoted by Poli Distillerie Srl named ‘Welcome to our Territory’, which refers to five actions to be executed to fully experience the area. Poli Distillerie Srl supports this project by offering a bottle of grappa to any person who provides testimony of having completed the entire path. As such, the visitor will come to appreciate the spirit of the territory to which the company belongs.

The five actions are the following: “1) to see at least one of the beautiful Palladian Villas, true jewels of the Vicenza province; 2) to cross the Old Bassano del Grappa Bridge, hand in hand with one you love, exchanging a little kiss of love; 3) to taste a glass of Torcolato wine accompanied by Asiago Stravecchio Cheese; 4) to play chess with living pieces on the large chessboard of Marostica’s Cheese Square; and 5) to climb with a bike up to Monte Grappa or, if you are lazy, go by car, it’s worth it” (<http://www.poligrappa.com>).

TABLE 1: THE “POLI TERRITORY”

This is a land of culture, one that welcomes lovers of beauty to admire the elegant Veneto Villas designed by Palladio, the paintings of Jacopo da Bassano and Giorgione or the sculptures of Canova;

a land with a long memory, accompanying those who have the time along the paths of the Great War that left its mark on Mount Grappa and the Pasubio;

a land that never stays idle, and likes to sing the praises of those craft industries that have allowed the Veneto economy to flourish;

a land with good taste, ready and willing to pull up a chair for those with an appetite for wines and dishes that have earned their rightful place in Italy’s food and wine culture.

Each activity expresses the tradition and the culture at the heart of the Veneto region, that is, the Pedemontana Veneta area that includes Bassano del Grappa. By promoting such activities, the company underlines how its undertakings cannot be separated from its territory.

The second aspect in which the company demonstrates its great investment in its attachment to the territory and its passion for its product is the reappropriation of knowledge, memory and local culture, and the diffusion of entrepreneurial culture.

The company has also established the Poli Grappa Museum in two locations. One is in Bassano del Grappa, and deepens the research on the history of distillation and the diffusion and exploitation of the Italian grappa. The other is in Schiavon, and presents the evolution of the Poli family, a typical family of Vicenza, representing entrepreneurship in the north-east of Italy. These museums also organise various cultural and educational events for the community to witness the traditions and social dimension of local distillation. In addition, the Poli Distillerie Srl is always open to visitors who want to learn about and see the production process. Jacopo Poli also conducted research on the history of distillation (Poli 2014), which provides an important example of how it is possible to exploit a particular tradition of the Pedemontana Veneta area and Bassano del Grappa territory in particular.

Dimensions and determinants of territorial identity: a conceptual framework

By integrating literature analysis with information offered by the companies considered in this study, we propose a conceptual framework to capture and explain the concept of territorial identity. It especially highlights what companies can develop at the local level in order to improve territory-identity.

They can contribute to creating territorial identity by means of four dimensions: 1) physical dimension; 2) social dimension; 3) emotional-spiritual dimension; and 4) local-attractiveness dimension. These dimensions are closely connected along a continuum that defines the territorial-identity concept (see Figure 1).

The physical dimension is an expression of tangible elements that are localised in the territory in such a manner that the territory can be considered unique and special in relation to the local elements. The principal determinant explaining this dimension is 'local embeddedness', which refers to the constant and continuous physical presence in time and on the same territory of local actors and the production and selling of local artisan products.

The social dimension includes the relational proximity. It concerns the enhancement of relationships between local actors and stakeholders, even outside the territory. This means creating opportunities for cultural enrichment, as well as for promotion and enhancement of local resources. Such relationships contribute to developing entrepreneurial projects of territorial growth from the socio-cultural perspective.

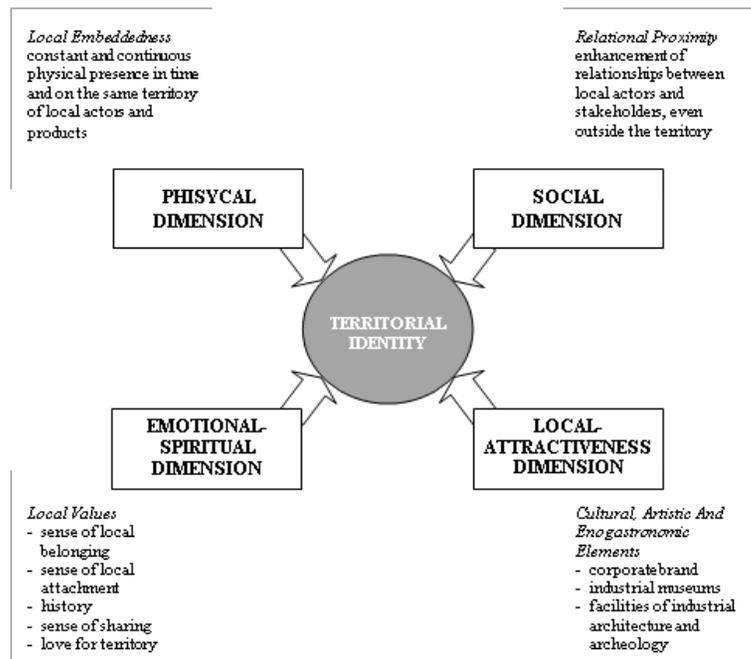


FIG. 1: CONTRIBUTION OF COMPANIES TO THE TERRITORIAL IDENTITY: A CONCEPTUAL FRAMEWORK

The emotional-spiritual dimension, as the name suggests, refers to the emotional and spiritual elements of a territory such as its fundamentally local values that stakeholders develop in time by means of history, traditions, customs and close relationships amongst them and with the territory. This involves a sense of local belonging, attachment and sharing, which can be synthesised in a ‘love for the area’ in which one lives and works.

Finally, the local-attractiveness dimension of territorial identity is the result of historical, cultural, artistic and enogastronomic elements that characterise a territory. Such elements include bridges, castles, squares, buildings, walls, churches, and culinary specialties. Companies can contribute to developing this dimension by creating socialising opportunities in the territory that accommodate a number of art forms (e.g., literature, cinema, music and dance). Several other possible entrepreneurial actions aimed at developing territorial identity are creating a corporate brand, industrial museums, and facilities of industrial architecture and archaeology.

This territorial-identity concept may bring to mind some characteristics of the Marshall’s districts but Bassano del Grappa territory is not a district. It doesn’t have all the traits of a Marshallian district such as territorial aggregations of small and medium-sized firms, presence of widespread entrepreneurship, endogenous process of innovation, monocultural configuration of local area (e.g., Lorenzoni 1979; Varaldo 1979; Panati 1980), and industrial atmosphere (see Marshall 1980). Essentially companies localised in the same geographic area act in order to contribute at creating and developing territorial identity because they live in and love that territory. If they choose not to invest more also in one of above mentioned dimensions, they may warp territorial identity created.

Conclusions, limitations and directions for further research

This study highlights how territorial identity is a concept that has received very little attention from researchers in the business-management field. The analysis made in this study can contribute to extending knowledge of territorial identity in three manners: 1) it clarifies the concept of territorial identity; 2) it presents two Italian business cases that

capture useful actions for creating and developing territorial identity; and 3) it proposes a conceptual framework that offers a foundation for future research by outlining the dimensions and determinants of territorial identity.

This analysis is an attempt to examine the territorial-identity concept, and offers a number of considerations that cannot be generalised: the subjectivity of the choice of the sampling and the selection of the territory (and companies) mean further study is necessary. In addition, this work considers exclusively the companies' perspective, but territorial identity is the result of the thoughts and actions of all local stakeholders. As such, future research should extend the analysis by considering the perspective of the wider group of stakeholders.

Therefore, this study, which is exploratory in nature, is subject to future developments and applications. Future lines of research could gather around two major themes. One concerns the development and subsequent testing of the conceptual framework proposed in this study. The other is to explore a number of new research perspectives.

The model presented lends itself to being implemented with other cases studies in other territories to check the dimensions and determinants proposed in this study, and find possible variables that would be useful for in-depth analysis. This framework can also be empirically tested in the future. The analysis of the literature and the conceptual framework are preparations for submitting items to group in subdimensions that can identify territorial identity.

Another promising area for further research is the analysis of the actors that contribute to creating and developing territorial identity. By means of a social-network analysis (e.g., Anzera 1999; Knoke and Song 2008; Scott and Carrington 2011), it is possible to conduct an ego-network-centered study to identify key stakeholders that are strategically fundamental for creating and developing local identity. It would also be possible to identify other actors such as those that are isolated (i.e., their participation in the network is irrelevant); pendant (i.e., the actor is 'hooked to the network' by a single relationship); bridge (i.e., the actor connects two subgroups); and gatekeeper (i.e., the actor creates relationships between a subset and the outside of group within the network). In addition, it is useful to calculate the indicators of (local and global) centrality to assess the territory's actors that have further connections with other stakeholders, and network density to understand the general level of relationships.

In addition, as competition exists not only between companies but also between local areas (Maizza 2013), it would be interesting to examine how territories, and their local actors, can develop their identity to compete more effectively in business.

References

- [1] Anzera, G. (1999). *L'Analisi dei Reticoli Sociali*. Roma: La Goliardica.
- [2] Artusi, G. (1996). Senso del Luogo e Radicamento nella Rappresentazione Cinematografica. *Geografia nelle Scuole*, 3-10.
- [3] Baccarani, C. & Golinelli, G. M. (2011). Per una Rivisitazione delle Relazioni tra Impresa e Territorio. *Sinergie rivista di studi e ricerche*, 31(84), VII-XIV.
- [4] Begalli, D., Capitello, R., & Codurri, S. (2014). Cooperatives, Wine Clusters and Territorial Value: Evidence from an Italian Case Study. *Journal of Wine Research*, 25(1), 45-61.
- [5] Bonaiuto, M., Carrus, G., Martorella, H., & Bonnes, M. (2002). Local Identity Processes and Environmental Attitudes in Land Use Changes: The Case of Natural Protected Areas. *Journal of Economic Psychology*, 23(5), 631-653.
- [6] Bonfanti, A., Battisti, E., & Pasqualino, L. (2013). L'Architettura Industriale come Fonte Innovativa per la Competitività Aziendale e per l'Integrazione Territoriale. In Referred Electronic Conference Proceedings del XXV Convegno annuale di Sinergie *L'innovazione per la Competitività delle Imprese*. Ancona: Università Politecnica delle Marche, 24-25 ottobre 2013, 69-86.
- [7] Caldo, C. (1996). *Geografia Umana*. Palumbo: Palermo.
- [8] Carrus, G., Bonaiuto, M., & Bonnes, M. (2005). Environmental Concern, Regional Identity, and Support for Protected Areas in Italy. *Environmental and Behavior*, 37(2), 237-257.
- [9] Cesaretti, G. P., & Scarpato, D. (2010). *Politiche Integrate per uno Sviluppo Competitivo Sostenibile dell'Agroalimentare*. Milano: FrancoAngeli.
- [10] Dai, Prà E. (2001). Parchi Letterari e Progettazione Territoriale. In Persi, P., & Dai Prà, E., "*L'Aiuola che ci fa...*" *Una Geografia per i Parchi Letterari*. Urbino: Università degli Studi di Urbino, Istituto Interfacoltà di Geografia.
- [11] Erickson, B., & Roberts, M. (1997). Marketing Local Identity. *Journal of Urban Design*, 2(1), 35-59.
- [12] Frémont, A. (1978). *La Regione. Uno Spazio per Vivere*. Milano: FrancoAngeli.
- [13] Gifford, R. (2007). *Environmental Psychology: Principles and Practice*. Colville (WA): Optimal Books.
- [14] Hallak, R., Brown, G., & Lindsay, N. J. (2012). The Place Identity e Performance Relationship among Tourism Entrepreneurs: A Structural Equation Modelling Analysis, *Tourism Management*, 33, 143-154.
- [15] Happaerts, S. (2012). Are you Talking to us? How Subnational Governments Respond to Global Sustainable Development Governance. *Environmental Policy & Governance*, 22(2), 127-142.
- [16] Knoke, D., & Yang, S. (2008). *Social Network Analysis*. Los Angeles: Sage Publications.
- [17] Levi, J. (2003). Il y a du monde ici. In Dematteis, G., & Ferlaino, F. (a cura di). *Il Mondo e i Luoghi: Geografie dell'Identità e del Cambiamento*, pp. 59-66. Torino: IRES Piemonte.
- [18] Lewicka, M. (2008). Place Attachment, Place Identity, and Place Memory: Restoring the Forgotten City Past. *Journal of Environmental Psychology*, 28(3), 209-231.
- [19] Lorenzoni, G. (1979). *Una Politica Innovativa nelle Piccole e Medie Imprese. L'Analisi del Cambiamento nel Sistema Industriale Pratese*. Milano: Etas Libri.
- [20] Luukkonen, J., & Moilanen, H. (2012). Territoriality in the Strategies and Practices of the Territorial Cohesion Policy of the European Union: Territorial Challenges in Implementing "Soft Planning". *European Planning Studies*, 20(3), 481-500.
- [21] Magnaghi, A. (2003). La Rappresentazione Identitaria del Patrimonio Territoriale, in Dematteis G., & Ferlaino F. (a cura di), *Il Mondo e i Luoghi: Geografie dell'Identità e del Cambiamento*, pp. 13-19. Torino: Ires Piemonte.
- [22] Marshall, A. (1980). *Principles of Economics*. London: Macmillan & Co.
- [23] Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods*. Beverly Hills: SAGE Publications.
- [24] Panati, G. (1980). Primi Elementi per un Approccio Sistemico al Settore: La Ceramica per l'Edilizia. *Economia e Politica Industriale*, 26, 5-48.
- [25] Pollice, F. (2005). Il Ruolo dell'Identità Territoriale nei Processi di Sviluppo Locale. *Bollettino della Società Geografica Italiana*, 10(1), 75-92.

- [26] Raagmaa, G. (2002). Regional Identity in Regional Development and Planning. *European Planning Studies*, 10(1), 55-76.
- [27] Raffestin, C. (2003). Immagini e Identità Territoriali. In Dematteis, G., & Ferlaino, F. (a cura di). *Il Mondo e i Luoghi: Geografie dell'Identità e del Cambiamento*, pp. 3-11. Torino: Ires Piemonte.
- [28] Roca, Z., and Oliveira-Roca M.N. (2007). Affirmation of Territorial Identity: A Development Policy Issue. *Land Use Policy*, 24(2), 434-442.
- [29] Rocchi, B. & Gabbai, M. (2013). Territorial Identity as a Competitive Advantage in Wine Marketing: A Case Study. *Journal of Wine Research*, 24(4), 291-310.
- [30] Rullani, E. (2013). Territori in Transizione: Nuove Reti e Nuove Identità per le Economie e le Società Locali. *Sinergie Rivista di Studi e Ricerche*, 91, 141-163.
- [31] Rullani, E. (2004). *Economia della Conoscenza. Creatività e Valore nel Capitalismo delle Reti*. Roma: Carocci.
- [32] Rullani, E. (2013). Territori in Transizione: Nuove Reti e Nuove Identità per le Economie e le Società Locali. *Sinergie Rivista di Studi e Ricerche*, 31(91), 141-163.
- [33] Schillaci, C. E., & Gatti, C. (2011). E Pluribus Unum: Intenzionalità Collettiva e Governo dei Sistemi Territoriali. *Sinergie Rivista di Studi e Ricerche*, 84, 21-45.
- [34] Scott, J., & Carrington, P. J. (2011). *The Sage Handbook of Social Network Analysis*. Los Angeles: Sage.
- [35] Sthor, W. B. (1984). *Selective Self-Reliance and Endogenous Regional Development Strategies. Preconditions and Constraints*. Vienna: Interdisziplinäres Institut für Raumordnung.
- [36] Turco, A. (2003). Abitare l'Avvenire. Configurazioni Territoriali e Dinamiche Identitarie nell'Età della Globalizzazione. *Bollettino Società Geografica Italiana*, XIII, 3-20.
- [37] Varaldo, R. (1979). *Ristrutturazioni Industriali e Rapporti tra Imprese*. Milano: Franco Angeli.
- [38] Zanon, B. (2011). Infrastructure Network Development, Re-Territorialization Processes and Multilevel Territorial Governance: A Case Study in Northern Italy. *Planning Practice & Research*, 26(3), 325-347.

**Does communication support intangibles?
Empirical evidences on Monza and Brianza' SMEs.**

*Roberto Chierici, roberto.chierici@unimib.it
Maria Cristina Morra, mariacristina.morra@unimib.it
University of Milan-Bicocca, Italy*

Does communication support intangibles? Empirical evidences on Monza and Brianza' SMEs.

Abstract

Intangibles are becoming increasingly important to enterprises for their growth, especially for SMEs, which play a vital role in Italian economic development. This is mainly due to a highly competitive business environment where resources are limited and knowledge is often seen as a commodity. This makes it difficult for firms to differentiate themselves over their competitors, where intangibles became the main drivers for competitive advantage.

This research tries to provide empirical findings on the role of communication developing intangibles assets, with a focus on the SMEs of the territory of Monza and Brianza. Through a quantitative analysis on 886 SMEs, we developed a PCA on the variables of communication objectives and tools, in order to represent the graphical distribution of respondents with respect to their use of communication.

The added value of the research concerns the significant empirical evidence to the how and why for SMEs when implementing their communication strategies.

Introduction

Since 2008, the significant transformations of business environment have been observed. The international economic context has dramatically changed and the effects of the economic and financial crisis are still affecting the world economy. As a direct consequence, enterprises are facing increasing difficulties in borrowing money from the bank system: this forces firms to finance new projects or activities with their own resources. Moreover, according to OECD, access to credit continues to be one of the most significant challenges for the creation, survival and growth of enterprises, in particular of SMEs (OECD, 2009).

Furthermore, the current social, technological and economic situation offers to firms new communication means that allow a quick interaction and dissemination of information and, therefore, contribute to a significant reduction of the competitive lead time: nowadays it is possible to know strategic and operational plans almost in real time. In addition, while ICT sector's revolution allowed customers to access products and services all over the world and put enterprises in a global competition, there are some evidences that physical proximity and localisation have become less important (Chiarvesio, Di Maria, & Micelli, 2004).

In such a difficult situation, in order to stand out among the competitors, enterprises are required to differentiate their offers and grant activities that deliver greater profitability (Gadeikiene & Banyte, 2013).

Particularly SMEs suffer from the general pressure towards change capability brought by dynamic competitive scenario. According to IFAC survey results, 29.4% SMEs in the European Union find the economic uncertainty as the highest business trial, even though when compared to larger firms, SMEs can be competitive thanks to their reactivity to the market's expectation, their flexibility and their commercial skills (Zager, Sacer, & Decman, 2012).

At the same time, due to their lack of funds and means, SMEs have to pay particular attention in managing resources and tools effectively and efficiently. Otherwise, in order to defend their competitiveness, in a long-term perspective, and keep on satisfying their customers. Referring to competitiveness, intangible assets play a crucial role for SMEs.

In fact, as Maritan and Schnatterly suggested, the rapid expansion of goods and factors markets has left intangible assets as the main basis of competitive differentiation (Maritan & Schnatterly, 2002). Business performances are no longer driven by physical capital but by intangible capital, such as knowledge, people, reputation and systems, which are harder to imitate. Being the environment characterized by growing competition and continuous change, intangible assets do also emerge as fundamental economic factors.

Currently, firms are looking for new success factors (Malmelin, 2007) and for this reason intangibles are becoming increasingly important. Many scholars defined intangibles as the key resources for the generation of firms' value, because of their peculiarities such as high barriers to competitive duplication, scalability and increasing scale return (Barney, 1991; Galbreath & Galvin, 2008; Galbreath, 2005; Lev, 2001).

In the current competitive environment, relying on intangibles is necessary but not sufficient for firms to survive, especially for the small and medium sized ones. Thus, intangible resources represent only a potential asset for value creation and they have to be managed having in mind their creation, development, and improvement (Veltri & Nardo, 2013). For sure, in this process communication is an integral part of the organization's management, which includes building and increasing the company's intangible assets (Malmelin, 2007). As a result, the main objective of communication is to create value for all the enterprise's stakeholders (for instance its customers), and can influence tangible and intangible long-term financial results and give benefits to the society as a whole.

In light of what we have shown, the aim of this study is to provide empirical evidence on the role of communication for SMEs, in order to understand if it improves their intangible assets, and how it is managed from the point of view of objectives and tools. The first part of the paper consists in a literature review of intangibles and communication subjects. The second part exposes the methodology and the findings of the survey we conducted on a large sample of SMEs operating in Monza and Brianza province, which is one of most significant industrial area in Italy, and the quantitative analysis we performed on the data. In the third part, we present conclusions and managerial implications.

Literature review

Intangible assets

For some scholars firm's profitability is progressively shifting towards intangible assets, with less attention on production, materials management, inventory management and distribution systems (Schultz & Kitchen, 2004). Consequently, firms pay more attention on intangibles which are the most likely to leave a mark on corporate competitiveness.

As for the definition of intangible assets, many theoretical contributions lead to a proliferation of classifications and categorizations without getting to a universally accepted and shared definition (Kaufmann & Schneider, 2004). In short, no consensus on one set of terms and definitions is obvious.

In particular, the most common and diffused definition is due to Edvinsson and Malone contribution, who describe intangibles as "those assets that have no physical existence but are still of value to the company" (Edvinsson & Malone, 1997). In general, among the various interpretations we can find some common peculiarities such as immateriality and valuable resource that brings long-term benefits to the firm (Bontis, Dragonetti, Jacobsen, & Roos, 1999; Fasb, 2001; Funk, 2003; Gu & Lev, 2010; Lev, 2001). As a consequence, the organization's intangible assets refer to everything else apart from its concrete material assets that constitute sources of economic value and are less flexible, hard to accumulate and not easily transferred (Carmeli & Tishler, 2004). In addition, many authors concentrated their studies on a specific intangible assets category and its management, such as creativity, knowledge, employee competence, reputation and relational capital (Granstrand, 2000; Michalisin, Kline, & Smith, 2000; Sanchez, Chaminade, & Olea, 2000).

Despite the considerable amount of definitions, the literature seems to be oriented towards providing information on intangibles and methods of measuring them, such as innovation, quality, customer relations, management capabilities, alliances, technologies, brand value, employee relations and environmental and community issues (Hartman & Lenk, 2001). Consequently, the literature review concentrates on those approaches that gain and provide information on intangibles but fail in describing how to use and manage them (Kaufmann & Schneider, 2004). Nevertheless, it is generally acknowledged that if managers find a way to estimate the value of their intangible assets, they could measure and manage their competitive position of their firm much more easily and accurately (Kaplan & Norton, 2004).

Communication

In the actual competitive context, the role of communication is gaining significance especially if related to intangible assets. As a result, enterprises can succeed thanks to the ability to communicate with shareholders and stakeholders, and to convince them about their strategies and activities too. Therefore, the ability to communicate becomes one of the most important tool for achieving competitive advantage. On the other hand, because of the "communication revolution" which is characterised by globalized media and popularity of the Internet, accessibility to information is reflected in the increased interest of various stakeholder groups in enterprises' operations (Figiel & Szromnik, 2012).

Clearly, information flows influence the business performance of a firm. In fact, communication creates brand awareness and permits to understand customers' behaviours in dynamic markets (Day, 2000; Gounaris, 2005; Rust, Ambler, Carpenter, Kumar, & Srivastava, 2004; Sawhney & Zabin, 2002; Vlosky, Fontenot, & Blalock, 2000). The function of communication is central to the enterprises' survival, because it allows growing transparency and clarity, reaching a wider audience of actual and potential stakeholders, and finally, meeting the information needs of different groups of stakeholders (Adams & Frost, 2004). Indeed, by communicating the sources of a firm's intangible capital, an organization can influence the behaviour of its constituents and then its business outcomes (Hartman & Lenk, 2001).

Both in academic studies and in practice, we can refer to different objectives of the communication function: financial report results to external audiences achieve a strategic alignment of the goals of the whole organization, coordinate initiatives, create consensus between institutional stakeholders, or make customers aware about the values of the enterprise and its products and services. The literature review suggests a first broad distinction between internal and external audience, while a second and more precise one classifies communication in relation to the beneficiary of its actions in four forms: marketing, institutional, economic and financial and, finally, organizational communication (Pastore & Vernuccio, 2008).

As a consequence, we can notice that when we refer to the subjects of communication and intangibles, the two most cited forms of communication are the organizational and economic and financial ones. Indeed, the discussion of intangibles is completely different when information is needed for internal or external stakeholders (Heisig, Vorbeck, & Niebuhr, 2001)

In the case of organizational communication, knowing that internal missing information of intangibles can lead to a misallocation of resources, enterprises try to build task forces, corporate meetings and management transfers in order to facilitate information flows between corporate headquarters, subsidiaries and colleagues (Maritan & Schnatterly, 2002). Specifically, the intangible assets dealing with organizational communication are human capital, information capital and organization capital (Kaplan & Norton, 2004). In details, human capital indicates the skills, talents and knowledge that a firm's employees possess; the information capital involves the enterprise's databases, information systems, networks and technology infrastructures, while the organization capital concerns culture of the firm, its leadership and how it aligns its collaborators on its strategic goals. Therefore, the purpose of internal communication is to coordinate the whole organization in terms of culture and objectives, in order to create value for stakeholders. As Argenti says "communication is the key to get employees to become more productive and the interaction gives to the management more credibility with employees" (Argenti, 2012).

Instead, economic and financial communication aims to provide information on intangibles to potential investors with the aim of creating advantage in the competition for capital. Indeed, analysts adopt financial and non-financial measures to evaluate enterprises, including also intangible assets as effective predictors best of the enterprise's future performance (Hartman & Lenk, 2001).

To make intangibles visible to external stakeholders and create value for the firm, a large number of models and indicators referring to growth, renewal, efficiency and stability, have been developed (Chiucchi, 2004; Sveiby, 1997). Particularly, through economic and financial communication enterprises sort out information about their social and environmental impacts on the society (Gray, 1996). Even though the debates on this topic are numerous, scholars did not reach a common solution to the problem of measuring and reporting intangibles, yet.

In this paper, when we talk about communication, we indicate the specific form of marketing communication, namely that activity which tries to influence people's life in every dimension (Patanaittikul & Ongkrutraksa, 2011). Specifically, the objective of marketing communication is to credit the firm's brand image and reputation and enhance the value of its offer in the eyes of current and potential customers (which stands for the promotion level of marketing mix).

Methodology

The purpose of this paper is to sort out empirical evidences on the role and importance of marketing communication for on Monza and Brianza' SMEs in terms of objectives, strategies and tools. Specifically, the province of Monza and Brianza is situated near Milan, in Lombardy region, and it is one of the most important Italian industrialized

areas. In fact, in this territory we can find an extremely high concentration of firms, which contribute to the national GDP significantly. In particular, Monza and Brianza's industry is composed by 15.170 SMEs, which represent approximately the 83%¹ of the firms located in this area. As the European Commission suggested, SMEs should be considered "the backbone and the lifeblood of Europe's economy" (European Commission, 2007), and the composition of Italian, and Brianza, industry supports this argumentation. Moreover, particularly in the Italian economy, small and medium enterprises play a very important role: in fact, as pointed out in many academic studies, they represent about the 90% of the Italian business (Cillo, Ricci, & Landi, 2010). In addition, we can consider that Italy is fully populated by a large number of family-run firms, which focus their competitive edge on Made in Italy, craftsmanship and quality. Further, their economy is historically based on traditional sectors, which are not as capital intensive as those technology-based sectors are. For these reasons, we can assume that SMEs are the pillars of our national economic system.

In order to afford an accurate picture of the strategies and perspectives of Monza and Brianza's firms, related to the role of communication in developing intangible assets, we conducted a quantitative analysis. In particular, the survey instrument was a multiple-choice questionnaire sent to 886 SMEs of Monza and Brianza province, which belong to the database of the industrial sector's association, Confindustria Monza and Brianza. The survey period has been carried out from October to December 2013. The inquiry was sent via e-mail to the enterprises and the response rate was 21.8%. More precisely, we used the CAWI method which allowed us to achieve a redemption rate of 193 firms. In line with the business connotation of the province, the sample is composed for the 90.7% by SMEs, specifically by those enterprises which have a turnover of less than 50 million euro. More accurately, 72.4% of the respondent firms have a turnover which is lower than 10 million euro. The average age of the firms is about 33 years, and this indicates their health and longevity. Moreover, the most represented industry in the sample is engineering, followed by the tertiary sector and manufacturing, which incorporates chemical, textile, wood and furniture sectors. In addition, the core business of the enterprises refers for the 58.3% to production activity, for the 12.9% to commercial activities and for the 23.7% to service activities.

Our research is encompassed in a wider analysis of the enterprises of Monza and Brianza province, the "Osservatorio Impresa Monza e Brianza 2013", which takes into account a broad spectrum of topics. In fact, starting from some questions focused on anagraphic data, the questionnaire continued studying the commercial and communication organization, the internationalization, the access to credit, and the relationships between firms and banks. Due to the aim of our research, we concentrated our attention on the questions concerning of communication marketing, its objectives and tools.

The data we gathered were processed through the Principal Component Analysis methodology, because of its property of dimension reduction and factor analysis (Jolliffe, 2002). Through this multivariate statistical method, we could reduce the initial massive matrix of data and find two variables, one for each research terms, which retain most of the variation present in all of the original variables, with little effect on the results obtained (Zani & Cerioli, 2007). In conclusion, we could explain the approach towards communication with two principal components.

The first step of our study was the data cleaning, in order to take into consideration just those enterprises that completed the questionnaire totally. Secondly, we implemented the Principal Component Analysis adopting the software SPSS Statistics 20, both for the variable of communication objectives, and both for the variable of communication tools. This procedure supported us in identifying which variables were the best and the worst ones described by the first principal component of each question. In this way, we pointed out four edges for a Cartesian coordinate system, which is useful for the interpretation of the firms' graphical distribution. In a third phase, we elaborated the graphical distribution of the enterprises through their factor scores related to the first principal component of communication objectives – the x-axis – and the first one of communication tools – ordinate axis. The fourth and last phase was dedicated to match the graphical distribution with anagraphic data, specifically, age, turnover, type of activity, sector, type of management and target of communication. In this way, we tried to point out some further empirical evidences about the how's and whys of the strategic role of this function supporting intangible assets.

Empirical evidence

In order to understand which objectives and means of communication Monza and Brianza's firms take into account to develop their intangible assets and to reach a competitive position, we decided to use the PCA methodology. This choice was validated by preliminary checks we executed on the data set, in order to test if it presented the appropriate characteristics for using this statistical technique. In both cases, the results were supportive. In fact, the value of the KMO measure of sample adequacy for this set of variables was acceptable. Both the questions reached 0.70's (0.706 for objectives and 0.762 for tools), which can be labeled as "middling values". Therefore, the KMO test meets the minimum criteria analysis required to develop the PCA methodology. Moreover, the Sig. value, which figured out as 0.000, allowed assuming that the data set was appropriate for factor analysis.

In particular, due to our research's need, we considered that the best way was to intersect the principal components in order to analyse the subsisting relationship between the objectives and tools of communication. As depicted in Fig. 1, the analysis showed that, with respect to the objectives, on the x-axis there are two firms' opposite propensities. On the left side, there are the enterprises which are inclined to concentrate their efforts on developing tangible aspects of communication while, on the right side, there are those ones that direct their efforts towards improving the intangible aspects of their offer. Next, we proceeded to repeat this evaluation for the communication tools. On the top of the ordinate axis, there are means with orientation to create an active interaction with stakeholders, whereas at the bottom side there are the ones that do not require user interaction.

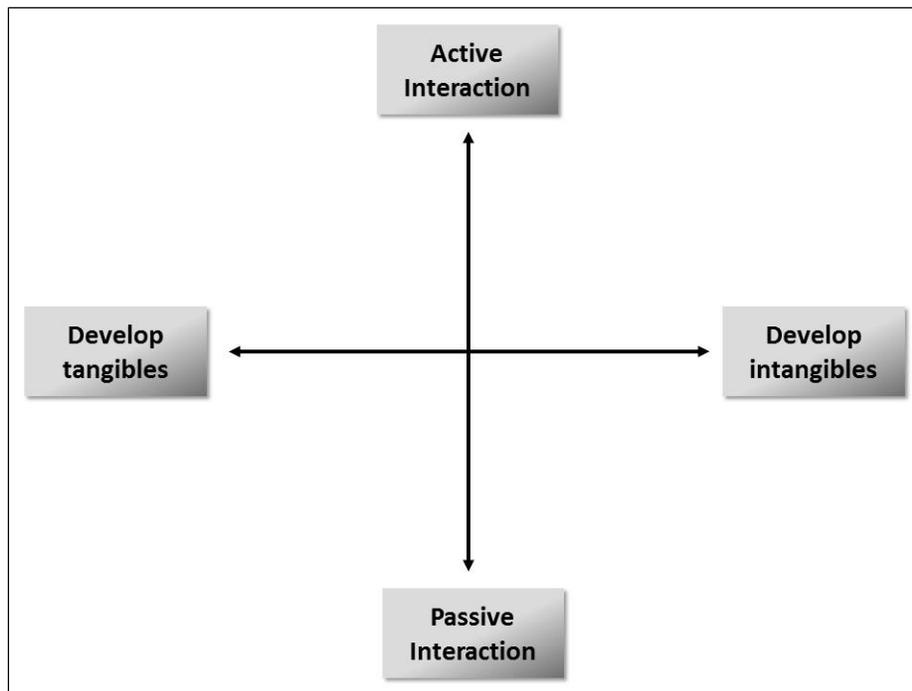


FIG. 1

In the successive step, we generated the graphical distribution of Monza and Brianza's SMEs, employing their factor scores of the two first principal components as the coordinates of the Cartesian plane. Fig. 2 shows the graphical distribution of the firms.

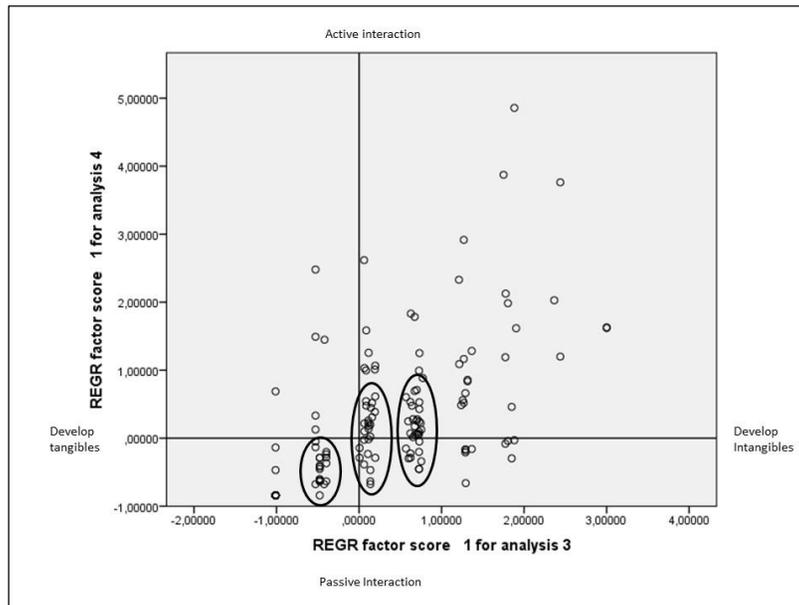


FIG. 2

In the picture, it is possible to identify some peculiarities. The primary observation is pertinent three particular groups where the SMEs of Monza and Brianza province are concentrated. The first group takes a clear position in the third quadrant of the Cartesian axes. This means that all the enterprises in this position try to implement their communication activities in order to enhance the tangible aspects of their offer. Moreover, these goals are pursued through tools that do not involve an active interaction of the receivers. On the contrary, the second and the third group have a radical shift towards the right side of the graph. Specifically, the second group has a more stretched structure, which indicates a wider spectrum of instruments used by the firms. As the second group, the third one has a vertically spread structure but is even more shifted to the right, towards the enhancement of intangible aspects as main goal of communication.

Successively, with the aim of implementing a more accurate interpretation of the groups, we intersected anagraphic data with information related to the function of communication. Specifically, we took into account six different categories of information: age, turnover, activity, sector, management and finally, the communication target. In light of these matches, we can connote the three groups.

The first one is mainly composed by small-size enterprises (60.0%), with a turnover between two and ten million euro and a mean for enterprises' business experience of about 31 years. Referring to the sector, the analysis showed a strong heterogeneity, thereby not allowing identifying a specific prevalence: in fact, the enterprises of the first group are characterized by production activity and work in fields as energy, health and chemical. Moreover, the firms are family-run. The communication of these enterprises seems to be oriented to contact a business customer base (73.0%) with the aim of enhancing the tangible aspects of the offer. In addition, the most used tools are traditional, such as catalogues (60.0%) and institutional website (33.3%), which are instruments that do not require a high level of interactivity with the audience.

The second group contains micro (31.8%) and small sized (40.9%) firms, and it is the oldest one because it is composed by enterprises with an average business experience of 42 years. Firms that belong to this group are characterized mainly by production activities (63.6%) and operate in the tertiary sector (18.2%). Within this group, there are principally family-owned enterprises (68.2%), which address their communication initiatives to several recipients: business customers (59.1%), consumer (40.9%), and agents and intermediaries (40.9%). The communication of firms in the second group pursues a broader set of objectives than the first group. In fact, in addition

to the description of the offer, the communication is used to enhance both the corporate brand, and both intangible aspects of the offer. Also, with regard to communication means that are used by these enterprises, there is an extension of the instruments: not only corporate website and catalogues, firms signal also after-sales support (36.4%), editorials and events (27.3%) and online advertising (18.2%).

The third group consists of micro enterprises (54.2%), mainly with a turnover lower than two million euro. This is the youngest group, with an average for enterprises' business experience of about 28 years. Unlike the previous groups, firms that belong to this one are involved both in production (45.8%) and both in service activities (33.3%). Another difference that comes out from the figures is that there is not a prevalent corporate form: in fact, in this group we can find both family-run firms and enterprises with managerial running (45.8% for both)². In this group the enterprises are mainly engaged in the engineering sector (33.0%), while the main target of their communication activities is business customer (87.5%). Furthermore, as we can see from the position to the right on the graph in Fig.2, the enterprises belonging to this group, pursue objectives of creating relationships, brand enhancement and development intangible aspects of their supply (41.7%) through communications initiatives. The means used to better achieve communication activities are the catalogue (75.0%) and the institutional website (62.0%). However, the set of tools used by respondents in this group is very broad and it includes PR and events (37.5%), sponsorship and indexing on search engines (25.0%), after sales service and online advertising (20.8%), social networks and direct marketing (16.7%).

Conclusions and managerial implications

The purpose of the present paper is to find empirical evidence on the role of marketing communication supporting intangible asset within the strategies of SMEs.

The first observation we have to make is that the relationship between communication and intangibles appear to be closely related to the number of instruments used. In fact, the more enterprises desire to give a strategic connotation to the function of communication through the enhancement of intangible resources, the more the spectrum of tools used increases.

Furthermore, it seems to exist a strong relation between the goals of enhancing intangibles and the tools used. In fact, the most interested firms in the development of tangible assets do use a limited number of instruments. In addition, among these there are only tools that do not require active interactions of the recipients (catalogues and institutional website). Indeed, we can notice that the second quadrant of the Cartesian plane is almost completely empty. This suggests that small and medium-size enterprises of Monza and Brianza province, which project their communication efforts in order to enhancing tangible features of their offer, do not adopt highly interactive tools. This issue demonstrates the link between the communication objectives geared to increase the value of intangible aspects and the number and the type of instruments they used.

On the other hand, enterprises wishing to exploit their intangibles do not give up these tools but they enrich their media mix with modern tools that require receivers' active interaction. These outcomes are in line with Figiel and Szromnik results which point out that such a situation is the more paradoxical because in our times there is an increasing pressure on interactive communication, dialogue and personalization. Indeed, the growth of interactivity in the communication process is undeniable and forces enterprises to change the methods of communication. This does not imply that the traditional unilateral ways of communication such as advertising, direct marketing or traditional unilateral PR will be entirely dropped (Figiel & Szromnik, 2012).

Finally, it is necessary to emphasize the relationship between the type of management and the objectives that are pursued. In fact, mainly family-owned firms (53.3%) and an orientation that brings the firms developing primarily tangible assets characterize the first group. In contrast, group number three is distinguished from the first one because of some characteristics and different objectives. Although they are prevailing micro-enterprises, in many cases they are managerial-run (45.8%) and they pursue objectives related to the enhancement of their intangible assets. On a closer analysis, it is fair to say that the family-managed enterprises are not absolutely bound to the use of traditional instruments with a low interactivity of customers, and that this type of management does not affect the strategic communication objectives.

Limits of the research and future developments

The analysis presents some criticalities and limits. In particular, the limitations of this research refers to the relatively small sample of the firms that participated in the research and returned fully completed questionnaires.

Moreover, although the quantitative method provides a statistically significant contribution for the analysis of intangibles, we are looking for developing a qualitative research that would be favorable useful to produce empirical evidences of how communication influences sustainability and performance when related to intangible assets. In future research, we would like to consider vendors in the analysis of communication, as they play an important role in marketing activities of small and medium-sized enterprises (Pencarelli & Cioppi, 2013).

References

- [1] Adams, C. A., & Frost, G. R. (2004). *The development of corporate web-sites and implications for ethical, social and environmental reporting through these media* (p. 98). Edinburgh: The Institute of Chartered Accountants of Scotland.
- [2] Bontis, N., Dragonetti, N. C., Jacobsen, K., & Roos, G. (1999). The knowledge toolbox: a review of the tools available to measure and manage intangible resources. *European Management Journal*, 17(4), 391–402.
- [3] Cillo, V., Ricci, P., & Landi, T. (2010). The italian SMEs in the global context: the accountability system role. *Esperienze d'Impresa*, 1, 59–77.
- [4] Edvinsson, L., & Malone, M. (1997). *Intellectual capital: realizing your company's true value by finding its hidden brainpower* (1st ed., p. 240). New York, New York, USA: HarperBusiness.
- [5] Fasb, N. (2001). Getting a grip on intangible assets—what they are, why they matter, and who should be managing them in your organization. *Harvard Management Update*, 6(2), 6–7.
- [6] Gregori, G.L., Temperini, V., & Perna, A. (2013). Quale possibile ruolo delle PMI nello sviluppo del marketing territoriale? Analisi del caso "Land of Value (LOV)". *Piccola Impresa/Small Business*, (1), 115-133.
- [7] Gu, F., & Lev, B. (2010). *Managing knowledge assets and business value creation in organizations*. IGI Global.
- [8] Jolliffe, I. T. (2002). *Principal Component Analysis* (p. 489). New York, New York, USA: Springer.
- [9] Kaplan, R., & Norton, D. (2004). Measuring the strategic readiness of intangible assets. *Harvard Business Review*, 52–63.
- [10] Lev, B. (2001). *Intangibles - Management, measurement and reporting* (p. 216). Washington, DC: Brookings Institution Press.
- [11] Malmelin, N. (2007). Communication capital: modelling corporate communications as an organizational asset. *Corporate Communications: An International Journal*, 12(3), 298–310.
- [12] Michalisin, M. D., Kline, D. M., & Smith, R. D. (2000). Intangible strategic assets and firm performance: a multi industry study of the resource based view. *Journal of Business Strategies*, 17(2), 91–118.
- [13] Pencarelli, T., & Cioppi, M. (2013). La comunicazione di marketing nelle piccole imprese: alcune evidenze empiriche. *Piccola Impresa/Small Business* (1).
- [14] Veltri, S., & Nardo, M. T. (2013). The Intangible Global Report: an integrated corporate communication framework. *Corporate Communications: An International Journal*, 18(1), 26–51.
- [15] Zani, S., & Cerioli, A. (2007). *Analisi dei dati e data mining per le decisioni aziendali* (p. 626). Milano: Giuffrè editore.

End Notes

¹ Authors' elaboration on AIDA database.

² Percentage does not sum to 100% because 2 firms of this group didn't answered to this question.

**The Relationship between Brand Equity and Country of Origin from the Retailer's
Perspective: A Literature Review**

Gaetano Aiello, gaetano.aiello@unifi.it
Raffaele Donvito, raffaele.donvito@unifi.it
Laura Grazzini, l.grazzini@univpm.it

Università Politecnica delle Marche, Italy

The Relationship between Brand Equity and Country of Origin from the Retailer's Perspective: A Literature Review

Abstract

Despite extensive body of marketing literature research on brand equity (BE) and country of origin (COO), extant research has primarily investigated these two constructs from the consumer perspective, rarely focusing on that of the retailer. Empirical research have demonstrated that both brand equity and COO influence consumers' evaluations and purchase decisions, while limited attention has been paid to their relationship and influence in the retail context in general and, in particular, on the retailers' attitudes. Based on this, the purpose of the paper is to provide a critical discussion of the fragmented literature on the relationship between brand equity and country of origin in this specific context. Through a review of the extant literature, the paper aims to provide a contribution to overcoming the knowledge gap in this research field and to propose some insights for future research directions.

Introduction

Brand represents one of the main intangible assets of a firm, which embodies its history and undoubtedly creates added value for both producers and customers (Aaker, 1991). In fact, *"a product is something that is made in a factory; a brand is something that is bought by a customer. A product can be copied by a competitor; a brand is unique. A product can be quickly outdated; a successful brand is timeless"* (King, cited in Aaker, 1991, p.1). Although brand value has been thoroughly studied in marketing literature, it focuses predominantly on consumers with limited consideration to the inter-organizational aspects and in particular to the retailers. As a result, the role of manufacturers' brands for retailers is not yet well understood because of the mistaken assumption that brands are relevant only to consumer relationships, and not to resellers (Glynn et al., 2007). However, changes in retailing (distribution consolidation, internet retailing and the creation of buying groups) have made it more difficult for manufacturers to manage their brands. Consequently, many authors recognize the existence of brand equity in the retail context, while extant research remains yet limited (Webster, 2000; Baldauf et al. 2003, 2009; Davis and Mentzer, 2008; Tran and Cox, 2009, Glynn et al. 2007, 2012). In other words, we know little about retailers' perceptions of brand equity.

Country of origin (COO) construct, as well as brand equity, has received large attention in marketing literature. As known, COO impacts on consumers' perception and behavior through the image of the product's country of origin. Moreover COO is recognized to be linked to the equity of a brand, since *"country or geographical location from which the product is seen as coming from may generate secondary associations"* (Keller, 1993). Despite a large body of research on COO and brand equity respectively, literature combining these two constructs is very limited (Pappu et al. 2006, 2007; Yasin et al., 2007), especially in the retailing context (Baldauf et al., 2009). Most research have analyzed relationship between certain dimensions of brand equity (perceived quality and brand image) and COO, producing an incomplete understanding of this relationship.

Considering this gap, the intended contribution of this paper is to investigate the relationship between manufacturers and retailers, focusing on manufacturers' brand equity as perceived by retailers, and COO as a valid antecedent able to positively affect brand equity. Through a literature review on the two constructs, the authors aim to highlight the main studies on this research stream, paying particular attention to the retail context. The authors also propose some insights for future research directions, given that at present a complete comprehension on this theme does not exist.

Brand Equity from the Retailer's Perspective

In this section of the paper, the authors analyze the main existing research on brand equity construct. The aim is to highlight how brand equity has been studied and measured in the marketing literature, what are its main dimensions, antecedents and consequences, and how brand equity could be studied from the retailers' perspective.

Brand Equity Construct

Starting from the 1980s, the concept of brand equity (BE) has received considerable attention in academic research and has been explored from both the firm's and the consumer's points of view (Aaker, 1991; Farquhar, 1989; Kapferer, 1992; Keller, 1993; Blackston, 1995; Nguyen and Nguyen, 2003; Pappu et al., 2005). However, no agreement exists regarding what brand equity is and, more importantly, how it should be measured (Yoo et al., 2001, p.1). Winters (1991, p.70) states that "There has been a lot of interest lately in measures of brand equity. However, if you ask ten people to define brand equity, you are likely to get ten (maybe 11) different answers as to what it means". Since then, a large number of studies have been published, which define BE from a number of different perspectives, and for a number of different purposes (Keller, 1993). As result, the literature on brand equity, although substantial, is largely fragmented and inconclusive (Christodoulides, de Chernatony, 2010, p.44).

One of the most popular definitions, widely accepted in the branding literature, is that by Aaker (1991). He defines brand equity as "a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers" (p.15). In this model, the author identifies five conceptual dimensions of brand equity such as brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets. Keller (1993), instead, defines consumer-based brand equity (CBBE), at the individual level, as "the differential effect of brand knowledge on consumer response to the marketing of the brand" (p.2). According to this definition, a "brand is said to have positive (negative) customer-based brand equity if consumers react more (less) favorably to the product, price, promotion, or distribution of the brand than they do to the same marketing mix element when it is attributed to a fictitiously named or unnamed version of the product or service" (p.8). Consistent with the associative network memory model, Keller identifies brand knowledge as the key antecedent of CBBE, which can be decomposed into two separate constructs such as brand awareness and brand image (associations).

As regards the dimensions of BE construct, CBBE has been nearly always represented as a multi-dimensional construct consisting of various concepts, most of which are qualitative in nature. In particular, we can identify the dimensions that combine both theoretical and empirical research: brand associations and brand image; brand awareness; brand loyalty; perceived quality and trustworthiness (Aaker, 1991; Farquhar, 1989; Kapferer, 1992; Keller, 1993; Lassar et al., 1995; Yoo et al., 2000, Pappu et al., 2005). Other concepts such as brand evaluation (Farquhar, 1989), brand personality (Kapferer, 1992; Blackston, 1995), and commitment (Martin & Brown, 1990) are used less frequently. Although Aaker (1991) and Keller (1993) conceptualized BE, they did not operationalize a scale for its measurement. Few empirical studies mention how to measure BE, focusing rather on the attitudinal aspects (brand awareness; brand image; brand associations; brand preference) compared to the behavioral ones. In line with Christodoulides and de Chernatony (2010), empirical research in this stream can be classified according to their approach to measurement (i.e. direct or indirect). Direct approach attempts to measure the phenomenon directly by focusing on consumers' preferences or utilities; while indirect approach measures BE through its dimensions. Although most of the empirical research are based on Aaker's conceptual definition, different findings emerge due to fact that the measurement of each component of BE is treated differently. As a result, the consensus on definition and measurement of CBBE has not yet been reached (Tran and Cox, 2009).

However, some efforts in this regard have been made, such those by Yoo and Donthu (2001) and Pappu et al. (2005). Yoo and Donthu (2001) develop a multidimensional measure of CBBE that is "reliable, valid, and parsimonious" (p.2), assessing its psychometric properties. The measure is developed using BE dimensions in accordance to Aaker (1991) and Keller (1993) (brand loyalty, perceived quality, brand awareness and brand associations). Data to calibrate and validate the scale were collected from three independent samples of American, Korean American and Korean consumers on three different product categories. Empirical findings identify ten items, which compose "multi-dimensional brand equity" (MBE) measure consisting of three dimensions of brand loyalty, two of perceived quality and five of brand awareness/associations. Unlike other empirical research, Yoo and Donthu (2001) note that brand associations and brand awareness should be combined due to a lack of discriminant validity (p.6); consequently these two concepts merge into one factor called "brand awareness with high associations". This aspect has been recognized as one of the main limitation of this work (Christodoulides and de Chernatony, 2010). However, Yoo and Donthu (2001) further developed a four-item direct measure of BE, which they labeled as "overall brand equity" (OBE) (p.11). A high correlation between MBE and OBE was found, validating the developed scale.

Pappu et al.'s study (2005) aims to enrich the measurement of CBBE due to the fact that the previous scales do not include some important dimensions such as brand personality. Unlike previous research, the scale constructed by the authors includes brand personality, which is considered a sub-dimension of brand associations and is expected to contribute to BE (p.145). Building on Aaker (1991) and Keller (1993), the research conceptualizes BE via four dimensions. Brand awareness concept is composed of both brand recognition and brand recall. Brand associations include brand personality, defined in terms of the various traits or characteristics that brands can assume from the perception of consumers (Aaker, 1991; Keller, 1993). According to Zithhaml's definition (1988), perceived quality represents the consumer's subjective evaluation of the product. Finally, the authors conceptualize brand loyalty from both attitudinal and consumer perspective. In line with previous research, Pappu et al.'s conceptual model proposes associative relationships among the four CBBE dimensions. The study was conducted on two product categories, including three brands for each one. Unlike in previous empirical studies, the sample was composed of actual consumers and not students (p.146). Initial survey was based on a pool of 19 items. After an exploratory factor analysis the items were reduced to 16, which served as indicator variables in the confirmatory factor analysis. Empirical results show five indicator variables for both brand associations and perceived quality, two indicator variables for brand loyalty dimension, while only one indicator variable for brand awareness (p.146). Although Pappu et al. (2005) achieve a distinction between the dimensions of brand awareness and brand associations, some limitations exist. Their confirmatory factor model operationalizes two of BE dimensions (brand awareness and brand loyalty) by one and two indicators respectively, making the psychometric properties of their scale questionable (Christodoulides and de Chernatony, 2010).

In regard to antecedents of brand equity dimensions, research have suggested that any marketing action has the potential to affect BE (Yoo et al., 2000). Some examples concern brand naming strategies, country of origin, company image (Keller, 1993); advertising expenditures, sale force, age of the brand, product portfolio (Sullivan, 1993); slogan, symbols and packages (Aaker, 1991). Yoo et al. (2000) conduct one of the empirical research in this stream and investigate the relationship between selected marketing mix elements and the creation of BE. Starting from Aaker's model, the authors develop a conceptual framework in which they place a separate construct, the overall brand equity (OBE), between the dimensions of BE (brand loyalty, perceived quality, and brand associations/awareness) and the value for the customer and the firm. They also add antecedents (price, store image, distribution intensity, advertising spending, price promotion) of BE, assuming they have significant effects on its dimensions (p.197). They specify the perceived marketing efforts as the exogenous constructs, which are selectively related to the three endogenous mediating constructs (BE dimensions), which are in turn related to the last endogenous construct (OBE) (p.204). Empirical findings suggest that marketing mix elements directly affect BE dimensions and, consequently, OBE (in this case the relationship is mediated by BE dimensions). Price has been identified as an important extrinsic cue and indicator of product quality. In addition, store image is highly correlated to product quality and brand awareness/associations. According to Simon and Sullivan's results (1993), the authors find a positive effect of advertising on BE. Finally, as expected, price promotions are negatively related to BE because, despite the short-term advantages, they could erode brand equity over time.

Finally, when it comes to BE consequences many authors support the view that a positive and strong product's BE creates value for the firm as well as for the customer. For example, favorable BE can determine a differential response by consumers; have implications for the pricing, distribution, and promotion activities related to the brand; generate larger margins and more inelastic responses to price increases; cause willingness to pay premium prices for the brand and willingness to seek out distribution channels for the product or service (Aaker, 1991; Keller, 1993). It also increases the probability of brand choice, marketing communication effectiveness, brand licensing and brand extension opportunities as well as decreases vulnerability to competitive marketing actions (Barwise, 1993; Farquhar et al., 1991; Keller, 1993; Simon and Sullivan, 1993; Smith and Park, 1992).

Brand Equity from the retailer's perspective

Branding theories and empirical studies in the retail context are very scarce, despite retailers or resellers are recognized as a type of B2B customer (Tran and Cox, 2009, p.132). Relationship between retailers and manufacturers is usually seen as conflicting for many reasons. Some of these address the increasing power of retailers, the development of their own private brands in order to differentiate them from other competitors, the potential rewards of increasing revenue

and profitability, as well as decreasing costs. On the other hand, in most consumer industries, the image of the retailer is created through the good image of the famous manufacturers' brands they sell. Moreover, retailers use manufacturer brands to generate consumer interest, to build store traffic and loyalty (Ailawadi and Keller, 2004, p.332). According to, Webster (2000) identify many obvious benefits offered by manufacturers' brands to retailers, such as established consumer demand, favorable consumer attitudes toward the branded products found in a store, and the credibility and image of the brand itself as enhancements of the retailer's credibility and image (p.18). He also stresses that the relationship between retailers and manufacturers should be a partnership, delivering value to consumers, because in the relationship among brands, reseller and consumers "the quality for any single player depends on the quality and strength of the relationship between the other two" (Webster, 2000, p.20). As a consequence, "the traditional ways of thinking about brands, which have largely left the retailers out of the equation, has resulted in an incomplete analysis of branding both from an academic and company perspective" (Webster, 2000, p.22). In this context, manufacturer of a branded product needs to recognize the important role of retailers, in order to build a strong brand: "first and foremost, the manufacturer must realize that its customer is the reseller, not the consumer" (Webster, 2000, p.22).

Baldauf et al.'s work (2003) represents one the first application of the study of BE from the retailer's perspective. The authors present an empirical study of CBBE theory within the context of organizations in the value chain. The purpose is to consider whether dimensions of BE are important antecedents in providing value (p.221). Based partially on Aaker's model and similar to Yoo et al. (2000), the authors focus on the separate dimensions of BE (brand loyalty, perceived quality, brand awareness) as contributing to performance. Performance measures are classified into two types, brand profitability performance and brand market performance, and are considered as the consequences of the BE model. Brand profitability performance is used as "an indicator of the financial contribution of a brand to the profit of reseller", while brand market profitability "refers to indicators such as sales volume and market share" (p.222). Additionally, customer perceived value is considered as an outcome of the model and is defined as "the consumer's overall assessment of the utility of a product based on the perception of what is received and what is given" (Zeithaml, 1988, p.14). The authors hypothesize that customer perceived value has a direct relationship to purchase intentions, which are in turn positively related to brand's market and profitability performances (p.225). Tile resellers located in Austria composed the study's sample. In line with previous research in the consumer context, findings suggest that the dimensions of BE are significant predictors of reseller performance measures, validating the applicability of the BE construct measures in the retail context.

In a following empirical research (Baldauf et al., 2009), the same authors broaden the analysis of BE in the retail context, evaluating antecedents of "retailer-perceived brand equity" (RPBE) and the effect of country of origin (COO) as a driver of RPBE (p.438). The purpose is to analyze how retailer perceived the equity of the brands they sell. Unlike the concept of retailer equity, Baldauf et al. (2009, p.439) define RPBE as "a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or that firms customers" (i.e., the retailer in this study). In the model, building on Aaker's work, the authors conceptualize RPBE as a multi-dimensional construct, consisting of "three reflective first-order dimensions" such as retailer-perceived brand equity, retailer loyalty to a brand, retailer awareness and association with a brand (p.439). They also identify antecedents of RPBE dimensions, in terms of marketing mix elements and product country image, and consequences in terms of brand profitability performance, defined as "the financial contribution of a brand to the profit of the retailer" (p.441). Marketing mix elements are adapted from Yoo et al. (2000) (image, price, and promotion of the supplier). Unlike Yoo et al. (2000), this study splits price into price level and deals, supposing they negatively affect RPBE. Promotion activities concern not only advertising, which has been recognized to be successful in generating brand equity, but also other activities such as free product samples, presence at fairs, exhibitions, sponsorship or publicity carried out by the supplier (p.441). Country of origin effect is conceptualized using Papadopoulos and Heslop's (2003) definition of product country image (PCI). Data were collected from retail managers of tiles located in Austria. Empirical findings suggest that both marketing mix elements and product country image are linked to the RPBE, which in turn mediate the effects of these antecedents on the brand profitability performance. To further validate the model, the authors performed additional analysis, using an alternative outcome (total profits derived from selling tile x), finding the same results.

Similarly to Baldauf et al.'s (2009), Tran and Cox (2009) define retailer-based brand equity (RBBE) based on Keller's definition of CBBE as "the effect of brand knowledge on the retailer's response to the marketing activities of

the brand manufacturer, in which a positive attitude towards the manufacturer's brand leads to the source of competitive advantage in that product category" (p.138). In line with previous research, RBBE is viewed as a multi-dimensional construct consisting of three components (brand association, brand trust and brand loyalty). The first, brand association, in the context of the retailer is defined as what retailers think about a brand as related to their own needs and demands. Thus, the authors conceptualize brand association as "a second-order construct that is made up of two dimensions: brand satisfaction (of the retailer) and consumer-based brand equity" (p.140). This second aspect relates to what they believe consumers think about the brand, corresponding to the concept of "consumer perceived value" in Baldauf et al. (2003) model. Brand trust is the second dimension of RBBE, defined as "the feeling of security held by the retailer in its interactions with the brand, which is based on the reliability of brand supply, the credibility of marketing information shared and the expertise of the brand manufacturer" (p.143). Finally, the authors define brand loyalty as "a commitment by the retailer to maintain a long-term and stable relationship with the brand manufacturer" (p.144). According to Baldauf et al. (2009), the proposed conceptual model's aim is to test the relationship between the three dimensions of RBBE, with the manufacturer support viewed as antecedent and brand performance as consequence of RBBE. Manufacturer support, as adapted from Glynn (2004), includes advertising support, merchandising support, key parts of the range, useful category information, key category growth, and additional choice. Brand performance is defined as "the economic results manufacturers want to achieve from strong brands" (p.146). Data were collected from a sample of Vietnamese retailers. Empirical findings confirm 8 out of 11 hypotheses. The findings show that RBBE consists of three components (brand trust, brand association, brand loyalty), allowing the authors to assert that "CBBE from the individual perspective can be applied to the retailer perspective" (p.167). Manufacturer support is a valid antecedent of the RBBE model, and it positively relates to brand performance. Finally, RBBE dimensions relate positively to brand performance.

Unlike previous empirical research, Davies and Mentzer's study (2008) analyses BE from a relational point of view. Specifically, the research examines the effect of trade equity and brand equity (two key relational resources) in relationships between retailers and brand manufacturers. Their model introduces and develops a new concept of trade equity, defined as "the value that accrues to a firm from being known in a trading network as a trustworthy trading partner" (p.436). At the same time, to explore the effects of a firm's ties with end consumers, they draw on the concept of BE, defined as "a relational resource that is located in relational ties between a firm's brands and the brands' consumers" (p.436). Consequently, they test the differential effects of these relational resources and their interaction on two fundamental properties of exchange relationships: dependence and commitment. Dependence is defined as "the extent to which attainment of goals is mediated by another firm and is available only through the relationship with that firm", while commitment in exchange relationships exists when a firm views a relationship as important, wants the relationship to endure indefinitely, and is willing to work to maintain it. Moreover, BE is considered a moderating factor, which can both strengthen and weaken relational ties with trading partners (p.440). Further, BE is proposed to strengthen dependence by providing access to a variety of brand specific resources. Paradoxically, strong brands are also likely to weaken trade equity's effect on commitment, since a retailer's commitment to a manufacturer with a strong brand might be viewed as a derived commitment (p.441). Data were collected through a mail survey on home appliance retailers. Unlike previous empirical research, the authors develop new measures for trade equity and brand equity, both validated by a confirmatory factor analysis. Empirical findings confirm the positive relationship between dependence and commitment and provide evidence for differential effects of relational resources on relationship properties (p.444). Specifically, trade equity has a greater effect on commitment, while BE has a greater effect on dependence. The moderating effect of BE is also supported, since it strengthens the effect of trade equity on dependence and weakens the effect of trade equity on commitment.

In line with Davis and Mentzer's study (2008), Glynn et al. (2007; 2012) focus on the relationship between manufacturers and retailers, studying how manufacturers' brands benefit retailer and how these benefits affect retailers' evaluation of the brand. Unlike previous empirical study, Glynn et al. (2007; 2012) present BE as one of the manufacturers' brand benefits. A proposed conceptual model consists of ten hypotheses, which link manufacturer benefits to the retailer evaluations of the brand (p.1129). The authors identify four sources of benefits, including financial benefits, brand support, BE and customer expectations, that positively affect retailer satisfaction. Moreover, brand satisfaction influences others endogenous constructs such as trust, cooperation, dependence-commitment and in-store brand performance (p.1131). Empirical results suggest that most of the manufacturers' brand benefits are positively related to retailer satisfaction. To further validate the empirical results, the authors develop an alternative model by

considering the effects of all possible pathways not included in the first alternative estimation (p.1140). Comparing the two models, it emerges that the second one fits the data better. It shows that financial benefits have the strongest effect on retailer relationship outcomes; the second strongest is the retailer's expectation of customer demand. Manufacturer brand support is the third ranked antecedent of retailer satisfaction with the brand. The fourth benefit, brand equity, influences the retailer's commitment to the brand but not the retailer's satisfaction (p.1142).

The relationship between Brand Equity and Country of Origin: focus on the Retailer's Perspective

In this section of the paper, the authors analyze the main research on the relationship between brand equity and country of origin. In particular, we focus on empirical studies, which have analyzed country of origin image effect on brand equity, defined as a multidimensional construct. Although most of them are based on the consumer's perspective, we'll also review one study, in which this relationship have been examined in the retail context.

Country of Origin Construct

The effects of country of origin (COO) upon consumer perceptions, and purchase intentions have been extensively studied in marketing research. Although Dichter (1962) was the first who argued that a product's COO might have some influence on its acceptance and success, Schooler (1965) was the first who empirically tested this notion. Since then, COO effects have been examined with a variety of methodologies, product categories, and source countries. The broad conclusion emerging from almost 50 years of research is that COO does affect product evaluations (Bilkey and Nes, 1982; Peterson and Jolibert, 1995; Verlegh and Steenkamp, 1999). Generally, COO is considered as an extrinsic product cue (Bilkey and Nes, 1982; Erickson et al., 1984; Han and Terpstra, 1988; Thorelli et al., 1989), able to be a consistent and credible predictor of value and quality. However, COO is also one of the most controversial research fields since many studies reach opposite conclusions. Some conclude that COO has a significant influence on the choice of a product or service (e.g., Agrawal and Kamakura, 1999; Ahmed and d'Astous, 2008; d'Astous and Ahmed, 1999; Laroche et al., 2002). Others conversely conclude that the influence of COO is very weak (e.g., Ettenson et al., 1988; Liefeld, 1993, 2004; Lim et al., 1994; Usunier, 2006; Usunier and Cestre, 2008). Originally, the concept of COO was considered as the Made-in country (Nebenzahl et al., 1997), or the COM, country of manufacture (Samiee, 1994), which is the country where final assembly of a good took place. Other concepts have progressively emerged in the COO literature, such as country of assembly (COA), country of design (COD), country of parts (COP), and country of brand (COB) (Insh and McBride, 1998; Samiee, 1994; Nebenzahl et al., 1997; Jaffé and Nebenzahl, 2001).

One of the first conceptualizations of country of origin image (COI) was that of Nagashima (1970), who defined COI as "...the picture, the reputation, the stereotype that businessmen and consumers attach to products of a specific country. This image is created by variables such as representative products, national characteristics, economic and political background, history, and traditions" (p.68). Roth and Romeo (1992) define COI as "the overall perception consumers form of products from a particular country, based on their prior perceptions of the country's production and marketing strengths and weaknesses" (p.480). The authors identified four dimensions of COI such as innovativeness, design, prestige, and workmanship. Past research have shown that COI influences the evaluation of products in general, and classes of products as well as brands in particular.

Country of Origin and Brand Equity

Although there is a large body of research on COO and BE respectively, literature combining these two streams of research is very limited (Zeugner-Roth et al., 2008, p.578), since extant research has provided evidence between certain CBBE dimensions (perceived quality and brand image) and COI, without treated or recognized "neither brand image nor perceived quality as a dimension of BE" (Pappu et al., 2007, p.727). In this respect, several studies have shown that consumers' perception of quality was affected by country of origin (Häubl and Herold, 1999; Thakor and Katsanis, 1997) and also that consumer brand images change as the brands are made in different countries (Han and Terpstra, 1988; Nebenzahl and Jaffe 1996; Kim and Chung, 1997).

Pappu et al. (2006) is one of the first studies that examines the relationships between COO and the multi-dimensional CBBE (p.708). The aim is to identify empirically possible differences in CBBE, according to the country where the product was made. The proposed model identifies COO and product category as the independent variables of interest, while CBBE is hypothesized as a four-dimensional construct, defined in accordance with Aaker (1991) and Keller (1993). Product category-country associations refer to “consumers’ ability to evoke a country when the product category is mentioned” (p.698). Each of the CBBE dimensions is a dependent variable, expected to be affected by COO. Moreover, consumers’ product category-country associations are believed to moderate the effect of the COO on CBBE dimensions (p.699). Based on an experimental research, the model was tested using two product categories, with a sample of individual consumers. The survey questionnaire included three sections: section one aimed at capturing respondents’ product category-country associations, section two measured the dimensions of CBBE, section three was about demographic questions (p.703). Empirical results suggest that CBBE varies according to its COO and each of the CBBE dimensions vary significantly with the COO of the brand, providing further support for Aaker’s (1991) and Keller’s (1993) notion that COO associations are secondary associations to brand associations (p.708).

In a following study (Pappu et al., 2007), the same authors improve the research on the relationship between COO and BE, introducing two different levels of the COI (macro and micro level). Specifically, the study aims at analyzing the relationship between consumers’ country-level and product country-level images of a country, and the equity they associate with a brand of that country (p.726). Conceptual framework is based on macro and micro level of COI and dimensions of CBBE. COI (similar to brand image) is defined as “a set of country of origin associations organized into groups in a meaningful way” (p.727), conceptualized at both the country (macro) level and the product (micro) level. CBBE is defined as “the value consumers associate with a brand, as reflected in the dimensions of: brand awareness, brand associations, perceived quality and brand loyalty” (p.728). The authors assume that COI can influence the key dimensions of BE (brand associations, perceived quality and brand loyalty). Similarly to the previous study, a quasi-experimental research on a sample of consumers in Australia was conducted. Again two product categories were included, with three brands for each one. Second-order confirmatory factor analysis (CFA) was used to establish the dimensionality of respondents’ COI perceptions at both macro and micro levels. Three factors resulted consistent for macro COI (technological, economic and political) and others (innovation, design and prestige) for micro COI (p.732). Empirical findings examined the six different subsamples obtained by experimental research. The results confirm the existence of a significant and substantive relationship between CBBE dimensions and both macro and micro COI of the brand, and that the contribution of each CBBE dimension to the relationship varied by product category, which supports the previous research (p.736).

In line with Pappu et al.’s studies (2006; 2007), Yasin et al. (2007) explores the effects of brand’s COI on the formation of BE. Conceptual framework for BE is based on Yoo et al. (2000) and incorporates COI as the antecedent of brand equity. COI is treated as the independent variable, the dimensions of BE as the mediating variables and BE as the dependent variable (p.39). The study was conducted in Malaysia via a mail questionnaire on a sample of consumers. Three product categories of household electrical appliances were included. Similar to Pappu et al. (2006), the questionnaire contained three parts: part one to measure variable of COI, part two to measure dimensions of BE, and part three to obtain demographic and socio-economic characteristics (p.41). Scales used in the study are partially developed ex novo. Results of the exploratory factor analysis suggest three dimensions for BE (brand distinctiveness, brand loyalty and brand awareness/associations). Empirical results show that these three dimensions have a significant positive influence on BE. Same findings for the relationship between the COI and each of the dimensions of BE. The study also finds out that COI has a positive and significant impact on BE, fully mediated by brand distinctiveness and partially mediated by brand loyalty and brand awareness/associations (p.45).

Finally, Baldauf et al. (2009) is the only study that identifies COO as a valid antecedent of brand equity in the retail context. Specifically, the authors focus on product country image (PCI), which is defined as “place-related images with which buyers and/or sellers may associate a product” (Papadopoulos and Heslop 2003, p.404). Empirical findings suggest that PCI perceptions are not only an important determinant for customers’ product evaluations and purchase intentions, but, more importantly, also for brand equity. Moreover, findings demonstrate the importance of collaborating with suppliers from countries, whose product offering is perceived as highly valuable. From a supplier perspective, the positive link between RPBE and PCI indicates that the product origin matters and this knowledge could be used profitably (p.449).

Conclusions and directions for future research

Relationship between brand equity and country of origin in the retail context appears an interesting research stream both from the academic and managerial points of view.

From the academic perspective, even though the literature on this topic is limited, the research and empirical studies are emerging. As highlighted above, branding literature and specifically brand equity literature is very complex, and no agreement on how BE should be defined and measured yet exists. Moreover, most efforts in this regard have been invested in studying the consumer's perspective. As a consequence, the analysis of the retailer's perspective needs to be handled differently.

Empirical studies on brand equity, as perceived by retailers, agree with the fact that manufacturers' brand equity exists and plays a key role in the channel relationship, positively affecting the retailer's perceptions. However, there is no agreement on the definition of brand equity in the retail context. Despite most of the studies conceptualize brand equity as a multi-dimensional construct, only two define it specifically and both are based on the previous contributions of Aaker (1991) and Keller (1993). A clear definition of brand equity construct in this context will allow a better understanding of its main dimensions and how they can be measured. Another main aspect concerns the identification of the antecedents (e.g., marketing mix elements and COO), which could affect brand equity dimensions. Only one study identifies specific marketing mix elements and country of origin as valid antecedents. The relationship between country of origin image and brand equity in this specific context needs to be analyzed more in depth. Finally, the main consequences of brand equity in the retail context have been explained in terms of brand performance, whereas others aspects, such as retailer's commitment, dependence or satisfaction, have been analyzed less.

From the managerial point of view, a better comprehension of how retailers perceive the manufacturers' brands they sell will help brand manufacturers chose the marketing tools to build a strong brand. Studying brand equity, from the retailers' point of view, would also allow manufacturers to understand which strategies, in terms of price, promotion etc., could increase their brand equity. Moreover, it can be used as guidance to brand managers in setting up marketing plans aimed at building strong and long-term relationship with such strategic actors as the retailers.

References¹

- [1] Aaker, D. A. (1991). *Managing brand equity: capitalizing on the value of a brand name*: New York : Free Press.
- [2] Ahmed, S. A., & d'Astous, A. (1996). Country-of-Origin and Brand Effects. *Journal of International Consumer Marketing*, 9(2), 93-115.
- [3] Ahmed, S. A., & d'Astous, A. (2008). Antecedents, moderators and dimensions of country-of-origin evaluations. *International Marketing Review*, 25(1), 75-106.
- [4] Ailawadi, K. L., & Keller, K. L. (2004). Understanding retail branding: conceptual insights and research priorities. *Journal of Retailing*, 80(4), 331-342.
- [5] Baldauf, A., Cravens, K. S., & Binder, G. (2003). Performance consequences of brand equity management: evidence from organizations in the value chain. *Journal of Product & Brand Management*, 12(4), 220-236.
- [6] Baldauf, A., Cravens, K. S., Diamantopoulos, A., & Zeugner-Roth, K. P. (2009). The Impact of Product-Country Image and Marketing Efforts on Retailer-Perceived Brand Equity: An Empirical Analysis. *Journal of Retailing*, 85(4), 437-452.
- [7] Barwise, P. (1993). Brand equity: Snark or boojum? *International Journal of Research in Marketing*, 10(1), 93-104.
- [8] Bilkey, W. J. (1982). *Country-of-Origin Effects on Product Evaluations*: Palgrave Macmillan Journals.
- [9] lackston, M. (1995). The Qualitative Dimension of Brand Equity. *Journal of Advertising Research*, 35(4), RC2-RC7.
- [10] Christodoulides, G., & de Chernatony, L. (2010). Consumer-based brand equity conceptualisation and measurement A literature review. *International Journal of Market Research*, 52(1), 43-66.
- [11] d'Astous, A., & Ahmed, S. A. (1999). The importance of country images in the formation of consumer product perceptions. *International Marketing Review*, 16(2-3), 108-125.
- [12] Davis, D. F., & Mentzer, J. T. (2008). Relational resources in interorganizational exchange: the effects of trade equity and brand equity. *Journal of Retailing*, 84(4), 435-448.
- [13] Dichter, E. (1962). The world customer. *The International Executive*, 4(4), 25-27.
- [14] Erickson, G. M. (1984). *Image Variables in Multi-Attribute Product Evaluations: Country-of-Origin Effects*: University of Chicago Press.
- [15] Ettenson, R., Wagner, J., & Gaeth, G. (1988). Evaluating the effect of country of origin and the made in the USA campaign - a conjoint approach. *Journal of Retailing*, 64(1), 85-100.
- [16] Farquhar, P.H., Han Julia Y., & Ijiri Y. (1991). Recognizing and measuring brand assets. Working Paper, *Marketing Science Institute*, 91-119.
- [17] Farquhar, P.H. (1989). Managing brand equity. *Marketing Research*, 1 (September), 24-33.
- [18] Glynn, M. S., Brodie, R. J., & Motion, J. (2012). The benefits of manufacturer brands to retailers. *European Journal of Marketing*, 46(9), 1127-1149.
- [19] Glynn, M. S., Motion, J., & Brodie, R. J. (2007). Sources of brand benefits in manufacturer-reseller B2B relationships. *Journal of Business & Industrial Marketing*, 22(6), 400-409.
- [20] Han, C. M., & Terpstra, V. (1988). Country-of-Origin Effects for uni-national and bi-national products. *Journal of International Business Studies*, 19(2), 235-255.
- [21] Haubl, G., & Elrod, T. (1999). The impact of congruity between brand name and country of production on consumers' product quality judgments. *International Journal of Research in Marketing*, 16(3), 199-215.
- [22] Insch, G. S., & McBride, J. B. (2004). The impact of country-of-origin cues on consumer perceptions of product quality: A binational test of the decomposed country-of-origin construct. *Journal of Business Research*, 57(3), 256-265.
- [23] Jaffe, E. D. (2001). *National image and competitive advantage: the theory and practice of country-of-origin effect* (1. ed. ed.): Copenhagen : Copenhagen Business School Press.

End Notes

¹ Contact author for the list of references

When a Museum tells a Company

Floriana Iannone, floriana.iannone@unina2.it
Second University of Naples, Italy

When a Museum tells a Company

Abstract

The paper assumes that Corporate Museums are a form of organizational memory to be strategically used for the development and the communication of a company's identity and image. Object of the work is the analysis of Corporate Museums strategic role in telling the company. The theoretical framework is based on Organizational Identity (Albert & Whetten, 1985; Whetten, 2003) and Sensemaking topics (Weick, 1995) together with Fisher's thought (1984, 1987). The exploratory study clarifies the 'organizational identity' nature of the Salvatore Ferragamo SpA. Considering the Salvatore Ferragamo Museum as a strategic asset, that enables to communicate what is 'core' about the company, this study tries to shed light on the relationship between the identity expressed by organization members (both of the Company and Museum) and the identity sensemade by visitors. The paper describes all research phases, the method and the used instruments including the research design and the data collection process.

Keywords: *Corporate Museums, Organizational Identity, Sensemaking, Narratives and Stories*

Introduction

Object of this work is the analysis of Corporate Museums strategic role in telling the company. In particular, it clarifies the relationship between how an organization expresses and communicates its own identity, and how visitors perceive it after the visit to the Museum. Corporate Museums are considered a strategic asset that enables to communicate what is 'core' about a company. This study tries to shed light on the relationship between the identity expressed by organization members (both of the company and of the Museum) and the one sensemade by visitors. The researcher perspective is considered too. The 'organizational identity' nature of the Salvatore Ferragamo SpA is analysed through an exploratory study conducted in depth. This case study explores and better understands the effectiveness of Corporate Museums as strategic tool of communication, considering the identity shown (the company perspective) and the perceived one (the visitors point of view) together with exhibitions, narratives and stories presented in the Corporate Museum. The ultimate goal is to compare the study results to the literary assumptions and to create a method for organizational identity nature and process exploration.

Theoretical Background

1. Corporate Museums

Corporate Museums have been considered a special case of self-referred collected objects, consistent with the activities carried out by a firm (Comunian, 2010). Danilov (1992) defined it as «*corporate facility with tangible objects and/or exhibits, displayed in a museum-like setting, that communicates the history, the operations, and/or the interests of a company to employees, guests, customers, and/or the public*». According to Bossaglia (1997:7) they are «*Those organized by industries or companies, in almost all cases of private management, which collect materials and documents on the activities of the industries themselves*». Negri (2003:19) defines Corporate Museums as «*All Museums generated in different ways from a company, whose heritage is closely connected to its specific activity*». Considering the ICOM definition of a public Museum¹, a new one is proposed in this work. It is based on difference and analogies between the two: Corporate Museums, as the public ones, show a willingness to 'collect', 'document', 'preserve' and 'exhibit' evidences and intangible assets (information) related to the firm (that can be considered as 'particular part of the humanity'). Corporate Museums in this work are 'not for profit institutions in different ways generated by a company as a direct consequence of its business: these Museums preserving, exhibiting and communicating the tangible and intangible evidence of a business or an industry, have to be sufficiently structured, open to the public and have to sustain the development of the community'. Italian Corporate Museums are associated in 'Museimpresa' promoted by Assolombarda and Confindustria.²

1.1 Functions and Objectives of Corporate Museums

The primary function of a Corporate Museum is to 'collect' company's artefacts. They testify the industrial activity, avoiding its dispersion and deterioration. Another key feature is to 'document', 'inventory', and 'catalogue' all its artefacts with a scientific criteria. This is the fundamental difference between a corporate collection and a Corporate Museum. All these activities allow interpreting the image of a company, its industry, its cultural evolution and the one of society too. The Museum shows all those aspects to the public. The implications in the business strategies, especially for the marketing are evident. Despite having a purely cultural purpose, Corporate Museums are contextualized within corporate organization. They have to follow a business logic absolving at the same time to the functions of a Museum and to the activities and policies of corporate marketing and business communication. As a sort of continuum between past and present, tradition and innovation, Corporate Museums can be considered as an additional communicational tool to the traditional and typical ones. Their activity can also affect the internal communication, as part of the corporate culture. A Corporate Museum can represent a source of innovation and inspiration for designers, creative and new products developer too. In addition, in a market system in which the intangible assets are a source for the competitive advantage (Vicari, 1991; Costabile, 2001), Corporate Museums can help to ensure an advantage in terms of social prestige, loyalty and differentiation from competitors. They collect multiple corporate resources and crystallize corporate values. According to Danilov (1992), the first Corporate Museums were predominantly historical since they showed documents, photographs and past productions, or they tried to reconstruct company history or founder and other leaders contributions to its growth. In more recent times, greater emphasis has been given to public relations and market orientation. Montemaggi and Severino (2007:109) considered Corporate Museum as «an organizational asset, whose effective utility is in the context of marketing and communication». They have appropriately been framed between the corporate communications and public relations tools (Kotler, 1993; Lambin, 2000) because of their capability to draw attention on the company, on its merits and its values (CSR) with the ultimate aim to legitimate the firm in its environment. According to Gilodi (2002) a Corporate Museums can be leveraged by those organizations in constant search of difficult to imitate corporate communication tools. They allow to extend the institutional communication range because they can increase the information about the company. Thanks to this information the public can consolidate its perception and its evaluation about the company. Corporate Museums have been considered as form of organizational memory (Kinni, 1999; Kransdorff and Williams, 2000; Nissley & Casey, 2002) to be strategically used to develop and share identity and image. In this perspective they have been framed as strategic assets affecting organization actions. The artefacts together with written stories (official), oral tales (guide), and stories resulting from social interactions coexist within the Museum and within the company that created them. Nissley & Casey (2002) have postulated a kind of organizational memory that can allow a comparison between the traditional model of Corporate Museum (passive collection of artefacts of the organization) and the strategic one (in which organizational memory is a strategic asset). According to the two Authors both the images of Corporate Museum configure physical structures in which the company tells its own story resulting from the agreement and from the sharing within the organization members. The attempt is to explain and communicate what is important about the organization past. Organizational memory has been linked to organizational learning too, as well as to the strategy, to the organizational effectiveness, to the developing identity and image (Simon, 1991; Weick, 1995; Moorman & Miner, 1998). Developing the organization's members sense of pride and belonging (identity of the organization), the Museum informs the visitors about the products and services of the firm (organization's image). Kinni (1999) pointed out that companies such as Coca-Cola, Ford, Motorola, implemented their Museums not only with the intent of preserving their history, but also with the strategic function of facilitating internal and external relations. In this sense marketing and image creation play a key role in many Corporate Museums. Nissley & Casey (2002) explored these realities considering it as tools for a better understanding of the organizational memory. They sustained their validity as a strategic instrument for the development of the company identity and image. The authors quoted Sturken's (1997) 'politics of remembering' and 'politics of forgetting' and recognized it in the choices of Corporate Museums exhibition. In their seminal contribution are indicated the guidelines for this research work: P1- Corporate Museums are a form of organizational memory; P2- Corporate Museums are socially constructed forms of collective memory (history) and episodic (cultural); P3- Corporate Museums are not passive collections of organizational artefacts but they are a kind of organizational memory to be strategically used by the firm for company's identity and image

development; P4- There is, in Corporate Museums, a policy exhibition of the organizational memory. In other words, the organization chooses what to display (politics of remembering) and what not (politics of forgetting).

2. The Organizational Identity Construct, the Sensemaking Process and the Narrative Paradigm

In the past few years, 'organizational identity' issue has been investigated involving various disciplines, different paradigms and research traditions. Since the 80' a lot of contributions have been focused on this topic, starting from the seminal paper of **Albert & Whetten** (1985). The two scholars define 'organizational identity' as the «*set of features that organization members recognize as fundamental, distinctive and enduring (or continuous) considering the past, the present and the future of a company*». Its expression and communication process has been investigated too and only few contributions deal with Corporate Museum as a strategic tool. Anyway, very unusual is a study that stresses 'organizational identity' analysing Corporate Museums stories and exhibited narratives.

2.1 The Organizational Identity Construct

Despite all the difficulties in defining 'organizational identity' nature, this work draws on 'the social actor perspective' grounded in the 'institutional theory'. From this perspective, identity is to be found in the 'claims', in the identity statements that can be found among organization members. These identity statements concerne the fundamental, durable and distinctive properties of organization (**Albert & Whetten**, 1985). The 'claims' are by definition long-lasting and resistant to change, if not in the long time (**Czarniawska, 1997; Whetten, 2006**). According to a functionalist approach the 'core, distinctive and enduring' organization values are defined by top management and can be transferred to the Museum and then from the Museum to its visitors. In this context, the Museum is a 'medium' in which it is possible to transmit and communicate company 'core purpose' and 'core philosophy'. These are attributes giving sense and completeness to organizational identity concept (**Margolis & Hansen, 2002**). This particular interpretation is the key for the organizational identity understanding. It helps to explain the role of Corporate Museums too, especially in organizational identity transmission process. In corporate Museums the choices of exhibition are exclusively linked to the top managers point of view. They choose what to show and what not, in this way establishing an organizational identity deliberate transmission process.

2.2 The Sensemaking construct and process

The sensemaking construct has been defined as 'complex and interpretive' (**Gioia, 1996**). It has been analysed in the debate around the phenomenological reality organizing process. **Weick** (1995:xi) defined it as «*Developing set of ideas with explanatory possibilities, rather than a body of knowledge. Sensemaking exists in the forms of an ongoing conversation*». According to him, the sensemaking process ('sensemaking') exactly overlaps with the organization process ('organizing'). The 'organizing' is the way people give sense to the flow of experience (**Schulz, 1967; Schwandt, 2005**). Reality corresponds to a flow of experience that exclusively takes a sense in a subjective cognitive way: it is something a subject has to read, and takes the meaning people provides to it. The existence of a reality is not excluded, but it is 'ambiguous' by definition. In Corporate Museums the meaning construction process consists in coding and decoding stories and exhibited narratives. The way is completely subjective to the viewer: referring to their own knowledge and experience and cultural reality people give sense to experiences.

2.3 The Narrative Paradigm

The concept of 'narrative' has been analysed in a symbolic-interpretive perspective by scholars such as **Czarniawska** (1997, 1998), **Kleason** (2001) and **Boyce** (1995). Organizations meaning construction dynamics exploitation focused the role of narratives and stories. **Fisher** (1984, 1987), who had a very large vision 'narrative', designed storytelling as the ongoing process through which a subject perceives the world and communicate with others. According to him what is communicated through stories is fundamental to human understanding (Cfr: **McIntyre, 1981:121**). **Czarniawska** (1997:126), in her study on organizational identity, considered Fisher (together with other theorists including **Mead**) as a «*the bedrock of symbolic interactionism*». In Corporate Museums a particular kind of narrative, in some way different from pure rationality, based on human values more than on the logic, enables visitors to make judgements about the exhibited stories and narratives.

3. The Research Questions

This work starts from the conclusions of **Nissley & Casey** (2002) - first conceiving Corporate Museums as a form of organizational, episodic and socially constructed memory to be strategically used for the development and disclosure of corporate identity and image. To better understand their nature the research focuses on whether and how Corporate Museums are able to communicate identity of the organization. These are the emerging research questions: 1) Has the corporate Museum a strategic role in narrating the company? Can the corporate Museum be considered as a strategic asset? 2) What is the relationship between how organizational identity is expressed and how it is perceived by visitors? Is there a correspondence between the identity expressed and the one perceived? Is the Museum communication effective and efficient to sustain the purpose of identity communication?

4. The Research Method

The study uses the qualitative method tools, very useful when the research purpose is to understand the nature of phenomena (**Miles & Huberman**, 1994; **Stake**, 1995). This approach seemed to fit the purpose to explore organizational emerging aspects (**Yin**, 2003). In the specific case of the Salvatore Ferragamo SpA this aspects were framed in the context of narratives and stories exhibited in his Corporate Museum. The case study method, therefore, allows the researcher to become an important part in the process of data collection, as well as to provide contextual information (**Patton**, 2002). **Yin** (2003:19) described the types of data that can support it: these are interviews, observations and document analysis, each one used in this study. **Weick** (1995:172-173) also provided a setting guide to the research design when 'sensemaking' is the investigated factor. The Author suggested guidelines for the data collection, analysis and interpretation. He recommended to keep in mind the following points: 1. Allow actions situated in the context; 2. Work in proximity with the participants, being their 'texts' fundamental; 3. Watch the analysis models, rather than the assumptions; 4. Test explanations against the plausibility; 5. Use few number of cases, related to the investigated phenomenon; 6. Use a method that allows the researcher to deal with the meanings and not with the frequencies. Following this recommendations the data collected were then analysed using an interpretative methods combination. **Fisher's** 'narrative paradigm' (1984;1987) provided a useful lens through which analyse the stories told by the interviewees and the narratives exhibited in the Museum. It helped to clarify the relationship between the Salvatore Ferragamo identity and the one sensemade by visitors. **Czarniawska** (1998:50), who described the strong ties that the narrative methodology has with the study of 'organizational identity', provided an additional interpretative guidance. **Whetten** (2006) himself quoted her work, suggesting to the researchers to look at the emphasis on autobiographical organizational elements considered as the 'organizational identity' source and essence. **Boje** (1991:106) looked at the organizational life as a 'story under construction', describing the storytelling as *«preferred sensemaking currency of human relationships among internal/external stakeholders»*. To reach the goal to explore the Salvatore Ferragamo case, the narrative approach was adopted stating that organization says/performs stories about her own identity, and visitors read/give meaning to these stories. The task and the goal of the researcher was to give voice and meaning to both in order to better understand their relationship. In particular, it has been possible to clarify the role that 'stories' and 'narratives' play in the communication process of 'organizational identity'. The organizational identity attributes - 'core purpose' and 'core philosophy' (**Margolis & Hansen**, 2002) - were investigated collecting Salvatore Ferragamo's administrators 'views'. The comparison between the company perceived identity and the one sensemade by visitors showed the museum effectiveness as an organizational identity communication tool. Subsequently, the three point of view were triangulated to clarify whether the Salvatore Ferragamo's corporate identity was adhering to the vision proposed and expressed by the Salvatore Ferragamo Museum. Finally it was realized if visitors perceived Salvatore Ferragamo's organizational identity without distortion. In other words the study clarifies if the identity expressed by the company and narrated by the Museum was coincident with the one perceived by the visitors. The field survey was divided in three phases. The primary data were collected through some interviews to two Salvatore Ferragamo SpA administrators, and to six Museum administrators (including employees, managers and interns). Through the use of semi-structured protocol eighty visitors were interviewed. Previously, but also in parallel to the course of the interviews, a long period of observation was conducted. It was really usefull to other documents analysis preparation and provided an interview

process solid foundation. The time spent inside the Museum was crucial for visitors behaviour understanding. The empirical evidence were then compared to the related literary assumptions in order to shed more light on the most problematic theoretical aspects.

4.1 Demography

For each of the interviewed subjects a pseudonym was used, while visitors have been marked with a serial number, assigned following the interview order. The respondents demographics is presented in Appendix A. The observed and interviewed Museum administrator were: 'Rina', 'Lola', 'Anna', 'Dana', 'Clara' and 'Romoaldo'. They hold responsibility positions within the Museum. The first three had their offices separate from the exhibition area, to a higher plane: Clara played a leading role during an internship of six months, Dana and Romoaldo had 'front office' role as receptionists and the bookshop. The observed and respondent company administrators were 'Alessio' and 'Falco': the first works in the 'Corporate Communication' area, the second is involved in the 'Investor Relations' activities. They specifically requested to avoid further information in order to maintain confidentiality and reservation. The visitors' demography is shown in Appendix B. It is presented following the interviews order carried out during several days of work in the Museum. A serial number is used for each respondent since the interview was administered in a completely anonymous way.

5. The Study Results

The Salvatore Ferragamo Museum was opened in May 1995, on the initiative of the Ferragamo family in order to show the extraordinary artistic qualities of the company founder. A pioneer in this sense, Salvatore Ferragamo decided to give value to the company history and to its product. The Museum displays the key products and the company history as examples of durability and of excellence. Born from an exhibition at Palazzo Strozzi on the story of the company founder Salvatore Ferragamo, the exposition become itinerant and hosted by many important international Museums. The Salvatore Ferragamo Museum strategic approach was achieved with historians and archivists aid. The Museum is located in Palazzo Spini Feroni in Florence, the Ferragamo's historic head office since 1938. A permanent exposition area shows the company and the brand history to the public while temporary exhibitions and events are hosted in a dedicated area. At the time of the research there was a temporary exhibition on Marilyn Monroe half century after her death.

5.1 The Salvatore Ferragamo Organizational Identity from an 'Internal Perspective'

The understanding of 'core philosophy' and 'core purpose' characteristics helped to shed light on the Salvatore Ferragamo's identity. The administrators interview (both of the Museum of the company) showed that organization's core purpose - and the reason of its existence - is *«to carry on the historical success of the founder in creating high quality footwear, to create and to produce the most beautiful shoes in the world and to produce footwear and other fashion products that make the wearer feel comfortable. Every single product has to be up-to-date in style and designed as a 'worship' objects for the fine attention to details»*. The distinctive way the company reaches this goal represents the 'core philosophy'. Together, these two attributes - 'core philosophy' and 'core purpose' – can help to define Salvatore Ferragamo's basic, durable and distinctive identity characteristics. The respondents recognized the founder entrepreneurial characteristics and his creativity as a key for the long-term organization success. For example in 'The Shoemaker of Dreams' - Salvatore Ferragamo's autobiography - a business crisis and personal bankruptcy of the entrepreneur in 1930s is narrated. The respondents administrators referred to this story to emphasize the entrepreneurial and innovative characteristics of the founder, together with his perseverance and creativity. Even when they recalled critical situations the respondents emphasized Salvatore Ferragamo's extraordinary qualities, contributing to amplify his mythic figure. His aspiration to perfection and his willingness to the personal and brand affirmation are currently pregnant identity characteristics. This is also supported by the choice to maintain the firms headquarters in the historical Palazzo Spini Feroni where the Museum too is located. The founder attention to continuous innovation finds current execution in supporting young fashion creators and designers: to this purpose the Museum devolves to fashion and design young students award its annual tickets proceeds. However, the link between what is fundamental and long lasting for the organization is well expressed by the fact that the shoes still are the creative engine of the entire production. Their high quality is due to the strong craftsmanship characterizing all the production chain, exclusively located in Italy. The core philosophy too - which is stated to be long-lasting - is based on the founder strategic vision. The company' priority, based on the founder's

attention on the foot anatomy are consumers comfort and care. Ferragamo's past almost tailor-made products (the founder studied in America in the early years of the twentieth century) are the source of inspiration of the current customizable products. It is possible to say that the 'core philosophy' remains unchanged over time. It reflects the founder personality, his strategic choices, and his devotion to the goal to find *«the shoe that fits well»*. These findings emerged from the stories and the narratives told by respondents that helped to shed light on the identity of the organization.

5.2 The Salvatore Ferragamo Core Purpose

Salvatore Ferragamo's 'core purpose' is *«to continue the historic success in shoes production still representing the core activity and the creative engine of the entire business»*. The attention paid to the model construction and to the strong craftsmanship represents the characteristic of the entire production cycle. It is still based on the company founder choices and on his strategic vision. While the historical palace and the Museum provide the context within which to show the way the company has pursued over time - and still continues – her core purpose; the innovative and entrepreneurial qualities of the founder, as well as his perseverance, represent the dynamic source for the company identity characteristics. These fundamental elements helped to sustain over time what is the 'core' about the Salvatore Ferragamo SPA. Company Administrators used the elements shown in the Box.1, to explain their understandings of the company 'core purpose':

TABLE 1: FUNDAMENTAL ELEMENTS OF SALVATORE FERRAGAMO'S CORE PURPOSE

Tenacity of the founder	Quality of the product
Innovativeness of the founder	Creativity of the founder
Iconic Brand	

From an 'internal perspective' (the company administrators one) Salvatore Ferragamo's 'core purpose' is *«to create and to produce the most beautiful shoes in the world, and to produce footwear and other fashion product that make the wearer feel comfortable. Those products have to be up-to-date in style and designed as 'worship' objects because of their fine attention to details»*.

5.3 Salvatore Ferragamo's Core Philosophy

Salvatore Ferragamo's 'core philosophy', the ways the organization reaches its 'core purpose', is represented by the elements emerged during the administrators interview and that have already been mentioned in the previous paragraph. The respondents used stories and narratives to illustrate company's core philosophy'. They recalled significant events about the company and its founder. Very important elements emerged such as the link with the territory, the stakeholders relations, the attention to the customer loyalty. Someone reported the challenges the founder faced in order to maintain a high level of quality. In particular they emphasized company philosophy core characteristic such as the high quality standards respect. Despite the generational change this is a categorical imperative that remains unchanged over time. Company Administrators used the elements shown in the Box.2 to explain their understandings of the the company 'core philosophy':

TABLE 2: FUNDAMENTAL ELEMENTS OF SALVATORE FERRAGAMO'S CORE PHILOSOPHY

Human resource care attention	Quality of the product	Innovation	Handwork
Confort care	Brand awareness	Choice of top materials	Made to order
Attention to the evolution	Customizability	Of style and fashion	Exlusivity

From an 'internal perspective' Salvatore Ferragamo's 'core philosophy' is to support the 'core purpose' through a series of 'practices, priorities and actions' showed in the Box. 2. Each one is aimed to sustain the purpose to produce the most beautiful shoes in the world together with other fashion products that make the wearer feel comfortable.

5.4 How the Salvatore Ferragamo's Museum expresses organizational identity (internal perspective)

When company administrators were asked to explain how they believed the Museum was able to communicate the organizational identity, they talk about its function and its aim. In their opinion the Museum tells Salvatore Ferragamo's history and products. communicating company values to the public as an excellence and durability example. The Museum provides a comfortable experiential environment that amplifies the connection between the visitors and the brand. Its primary purpose is to pay homage to the founder, to his creativity and to his entrepreneurial story. As explained by a respondent, the Museum main goal is *«To express Ferragamo's openness and constant interest to the art in general, to the design, to the entertainment, to the costume, to the communications, to the information. They undoubtedly have a strong influence on fashion, costumes and lifestyle»*. What visitors should perceive (from the company point of view) is well explained by Lola: *«The things which should remain to the visitors - and that I am sure remain - are many. First, the idea of a brilliant entrepreneur, the fact that he had fortune from nothing and he joined the success. Second, that creativity is a gift, something wonderful that must be cultivated. The visitors should understand that craftsmanship is an art, and that a simple job can be a success potential source. Another important element, for young people especially at this time, is that a working abroad can give rise to some interesting developments. So, the message is that a family enhanced something of great value and a 'family group' continues this purpose»*. The Museum creates a comfortable and experiential environment that helps visitors to connect to the brand and to the company history. This is emphasized by respondents too, such as Rina who summarized: *« Experience and interactivity are fundamental in everything we do»*; or Lola: *«I think the Museum tells what is the firm. This allows visitors to have a connective experience to the brand»*. For Anna, the Museum purpose is to *«allow an emotional connection with the brand»*. In other words the 'experience' a represents a key issue and plays a very important role. According to Rina: *«Everything we do, every new exhibition, every innovation, amplifies our knowledge and our stakeholder's one. We want people to build an emotional relationship with the brand but our aim is to contribute to the growth of the culture in the field of fashion, design and costume»*. Romoaldo referred to the museal experience as *«something that allows visitors to appreciate the entrepreneurial work. People should believe that even from a simple manual work it is possible to build an empire»*. Alessio highlighted that the Museum role is to *«allow an emotional connection with the brand»*. He continues: *«It is like meeting a celebrity and with him everyone appreciated his work. This Museum crystallizes all the dreams of a man who has become famous. Its great power is that here visitors meet a brand, not a man and people love the brand. They need to identify with a brand»*. Administrators also described the way they pay attention to the 'comfort and care' philosophy. Lola stated that *«'care' is in the DNA of the company. For example, we call our visitors 'guests' and we make them feel at home. We are so conscious about the image we represent, the Ferragamo one, and we try to apply this philosophy to everything we do. We continually ask ourselves if the atmosphere is elegant, refined, if it is 'friendly', if it is interesting. I think our biggest responsibility is to share what Salvatore Ferragamo really is»*. The participants described the care reserved to visitors as a key element of the 'core philosophy' implemented by maintaining a comfortable and refined environment where visitors are treated as guests. All the elements describing Salvatore Ferragamo's corporate identity are presented in the form of narratives and stories and exhibited in the Museum. These are summarized in the following Box.3.

TABLE 3: THE SALVATORE FERRAGAMO'S ORGANIZATIONAL IDENTITY AS EXPRESSED THROUGH THE NARRATIVE AND THE STORIES EXHIBITED IN THE PERSPECTIVE OF ADMINISTRATORS

<p>Telling the story of the founder of the company</p> <p>Create a comfortable environment experiential in order to amplify</p> <p>the connection between the visitor and the brand</p>

5.5 How the Museum expresses organizational identity (external perspective)

Visitor's point of view allows to answer to the research question: *'Is the organizational identity conceived by the company (and communicated through the museal stories and narratives) consistent with the one sense made by visitors?'*. It can be synthesized on the aspects presented in Box.4:

TABLE.4: THE SALVATORE FERRAGAMO'S ORGANIZATIONAL IDENTITY AS PERCEIVED BY VISITORS

<p>Core Purpose:</p> <p>To produce luxury shoes with high quality and craftsmanship.</p> <p>Core Philosophy:</p> <p>To produce shoes in a very exclusive way and to maintain an environment very careful for the consumer.</p>
--

The work sheds light on the sensemaking construction process too, clarifying how visitors make sense of organizational identity. They transpose and communicate it in two different ways. When asked to describe their museal experience visitors used stories and narratives they already knew before the visit. This kind of knowledge is referred to the stories respondents told during the interview and that they recalled from prior experience. Formally they told these stories when asked to recall some experience connecting them to the brand or to some product. During the interviews visitors also recurred to something they didn't know before the visit and learned during the museal tour. This kind of knowledge is referred to the recalled parts of exhibited stories. Respondents used to show a sense of surprise when they communicated their unawareness about something told or shown during the visit. Two elements can help to understand what is perceived by visitors as 'central, enduring and distinctive' of Salvatore Ferragamo. Respondents perceived that the company produces luxury shoes, exclusively made with a devotion to customer and environmental care. These findings emerge from the associations the visitors made between the Ferragamo brand and the qualities perceived (listed in question 10 'What words can You associate with the Ferragamo brand?'). They mainly connected the brand to 'quality' and 'craftsmanship'. The same was for the question 12 about the characteristics associated with the Ferragamo brand. For each of these visitors were asked to indicate what better fitted their opinion). This question clarified the brand perception as 'true luxury icon'. Salvatore Ferragamo was identified as 'high quality hand made product creator'. Visitors have often used similar descriptions to explain Ferragamo's identity. Someone defined its products 'true icon of luxury', another referred to the brand as 'synonymous of made in Italy', someone referred to it as 'fashion icon'. Other visitors focused on the manufacturing process quality still maintaining craftsmanship characteristics. In their opinion craftsmanship is one of the sources

of the historical and current brand success. The second element perceived by visitors as 'central, enduring and distinctive' of Salvatore Ferragamo concerns customer care'. People perceive it as central, realizing that the company works to its complete satisfaction. Environment in which the experience takes place, as well as the redundancy of all the museal narrative and stories are focused on the 'total care'. Some respondent extended this sense of care to the relationship with the local stakeholder and community recalling a particular story told by the guide on the relationship that the founder had with the city of Florence and its artisans.

5.6 The expressed and perceived organizational identity of Salvatore Ferragamo

The following Box.4 shows the adherence between the so called 'internal one' and the 'external one' perspective. The first is related to the administrators perceived identity. The second to the one perceived by visitors. It can be said that the two perspectives are substantially aligned. At a first step it should be possible to say that the corporate museum can be considered a strategic tool. It effectively communicates corporate identity and image.

BOX.4: THE EXPRESSED AND PERCEIVED ORGANIZATIONAL IDENTITY OF SALVATORE FERRAGAMO

EXPRESSED IDENTITY (Company and Museum)	PERCEIVED IDENTITY (Visitors)
Core Purpose:	Core Purpose:
To create and <u>to produce</u> the most beautiful shoes in the world. To produce footwear and other fashion products that <u>make the wearer feel comfortable</u> , up-to-date in style and line, designed as <u>objects of 'worship'</u> because of their <u>fine attention to details</u> .	To <u>produce</u> luxury shoes with <u>high quality</u> and <u>craftsmanship</u> .

The research results show that what company administrators expressed as 'core purpose' and 'core philosophy' is basically adhering to what visitors perceived, despite they often used different expressions, especially in the language. So the company conceived identity is the same visitors perceive. For example, administrators pointed out that the company success is due to the nature of the 'brand', among the most famous in Italy and America and they often used the term '*iconic*' to describe what is essential, distinctive and enduring of the brand; on the contrary visitors never used the term. The administrators often used the word '*brand*', never do visitors who often used phrases such as '*symbol of true luxury*', '*top quality product*', '*made in Italy symbol*' or the locution '*when you speak about the shoes you speak about of Ferragamo*'. The administrators have never made reference to the bankruptcy or to crisis on official narratives but referred to it during the interviews to emphasize the myth of Ferragamo; visitors never heard this kind of stories in the official narrative. Each administrator told stories highlighting entrepreneurial qualities, innovativeness, creativity and philanthropic nature of the company founder; visitors showed to have perceived his characteristics. Respondents who paid more attention to the company founder history showed willingness to talk about his characteristics and about the company story; on the contrary they focused on Marilyn Monroe temporary exhibition. It is possible to say that visitors with greater exposure to the brand history built their own sense in a different way, with more depth. With regard to the shoes production process both administrators and visitors recognized '*craftsmanship*', '*care*' and '*attention to materials*' as an essential characteristic of the Ferragamo production. It is important to note that even if the identity expressed and the one sense-made are very tight there is a gap in the narratives and stories communication. This can be extended from the company to the Museum and then from the Museum to the visitors. The Museum does not use monitoring tools and procedures to hear to the visitors 'stories and narratives'. So while the company communicates stories and narratives to the Museum and it that does the same to its visitors, neither of them collects the feedback. As showed in Fig.1 the company manages a tool for the organizational identity expression (more or less deliberately), but completely neglects listening to the visitor's current or past experience (brand awareness, shopping experience, brand perception...). The organization does not maximize the value and strategic potential of the Corporate Museum.

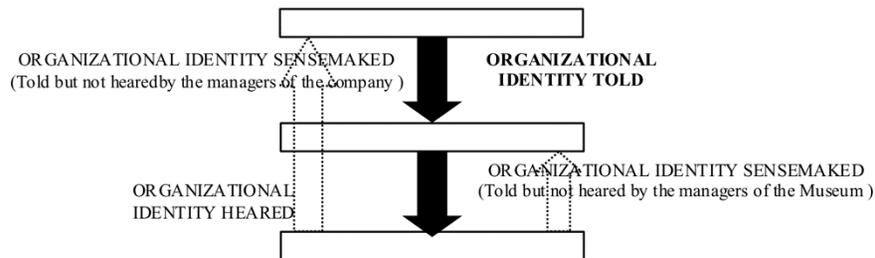


FIG.1: TELLING BUT NOT HERING: AN INCOMPETE NARRATIVE CYCLE

6. Theoretical Implications

It is important to note that, even if in a short period and for a small part of the life of a single organization the researcher took the role of 'sensemaker' in this study. This methodological aspect, based on **Weick** (1979) precept «*How can I know what I think until I see what I say?*» reinforces this study of a single case, despite investigated in depth. The organizational identity definition based on **Albert & Whetten** (1985), extended by **Whetten** (2006) and supported by the results of the empirical study of **Margolis & Hansen** (2002) helps to support its vision as a set of fundamental qualities that remain consistent and stable over time. The study confirms that organizational identity can be framed in its essential attributes ('core purpose' and 'core philosophy') whose characteristic are 'consistency and stability'. The study confirms that individuals are the voice of the organization (**Whetten**, 2006): they are able to share the essential qualities of the identity through the narration. The respondents represent a cross-section of reality able to describe the organizational identity in its core characteristics. They long articulated common themes even in a subjective point of view and using different narratives ad stories. In particular, they used the 'official' narratives showing a clear connection with the history and characteristics of the entrepreneur. Also critical moments in the company history were used to emphasize the myth of the founder and to help to focus on the 'core purpose' of the company, thus confirming the fundamental values of 'corporate philosophy'. It is possible to conclude, in the attempt to reconnect to the theories used, that **Margolis & Hansen** (2002) work allows to clarify the organizational identity distinctive features. Their method provides a stable and consistent support to the identity framed as the relationship between 'core purpose' and 'core philosophy'. The Ferragamo Museum location can be identified as 'space design' in which the organization can express its own identity through a mix of 'seeing and telling' confirming **Yanow's** (1998:7) definition of Corporate Museums. This study also supports **Nissley & Casey's** (2002:11) view of Corporate Museums a strategic tool to manage for organizational identity communication. According to the two scholars, what is exhibited in the Museum «*tell and retell the organization's story trough the verbal and written text and exhibits*» ad can be strategically managed through the 'politics of remembering and forgetting'. The results increased the understanding of the sensemaking process dynamics and content (**Weick**, 1995; **Schwandt**, 2005). As 'meaning makers', Ferragamo Museum visitors indicated as 'core purpose' of the company the one to 'produce luxury footwear with high quality and craftsmanship'. They focused on the founder history key elements such as is attention to the production process and to the study of the anatomy of the foot, as well as to his care to materials choice and use. Someone also made use of personal stories in order make connections to the museal experience. The study confirms that **Fisher's** (1984, 1987) 'narrative paradigm' provides a general theoretical perspective within

to frame the results related to the connection between the expression of identity and visitors meaning attribution process. The stories told by both administrators and visitors are part of a larger narrative that expands the connections and relationships between the company expressed identity and the one sensemade by visitors. The administrators have told stories from their 'internal' perspective, in most cases referred to the founder characteristics and to his creativity. Visitors also told stories drawn from their experience introducing it by the locution '*I did not know that...*', '*I was surprised to know that...*'. This confirms that respondents can be considered as 'story window' through which it is possible to see the corporate identity expression and to reconstruct the sensemaking process (Czarniawska, 1997, 1998; Weick, 1995; Schwandt, 2005).

6.1 A dialogue with the organizational identity literature

The work confirms that the primary source of a stable and long lasting organization identity resides in the company founder story (cfr. Whetten, 2006). The leader who more influenced the organization is the one that most characterizes its identity (Cfr. Cavanaugh, 2005). The strong link with the founder, and therefore its 'myth' supports the stability of organizational identity (Cfr. Margolis & Hansen, 2002).

6.2 A dialogue with the narrative theory

What emerges from this work is that individuals construct meaning through stories and narratives. Organizational members perpetuate and revitalize organizational identity through narratives. Exploiting the story of the company foundation they are able to create personal connections with it. The Museum amplifies the identity perception through an effective communication (Cfr. Fisher, 1984,1987).

6.3 A dialogue with the 'sensemaking'

The work confirms that sensemaking is something dynamic, built through knowledge experience. The sensemaking process in the Museum can be explained: it is activated by stories and narratives told in the Museum. These stories amplifies visitors' brand and product experiences (Cfr. Weick, 1995). The visitors are able transpose in a linear and undistorted way the message that administrators were set to transmit (Cfr. Walsh, 1995).

6.4 A dialogue with corporate Museums studies

The results demonstrate empirically that corporate Museums play a boundary line role between the organization and its identity. In Corporate Museums sensemaking and learning occurs and it is possible to clarify the process (Cfr. Nissley & Casey, 2002). What is not confirmed by the study is the conviction of Kavanaugh (1999) according to which what visitors learn can not be explained.

7. Limitations and Future research Directions

Despite the non-generalizability of the results due to the nature of a single case study, although investigated in depth, it is possible to compare it to the results of other theoretical and empirical works. Anyway some question emerged and could represent a guideline for the future research directions: How could the case of Salvatore Ferragamo be investigated in a different theoretical perspective but maintaining the aim to clarify the nature of organizational identity and in particular the role of the Museum in communicating that identity? How could it be otherwise treated the relationship between organizational identity, its expression and sensemaking? Can an alternative method be used for the data collection? Is it possible not to influence the results?

Future research direction could be focused on: expand the research to a larger number of cases; understand if the mythological component of the story of the founder amplifies the process of meaning construction leveraging on the fundamental elements of a culture (the ethics and the morals of a population); check if 'core purpose' and 'core philosophy' - and so the organizational identity- of the Ferragamo are perceived in the same way by people having a different culture, for example by comparing the results of this study for geographical area; clarify, from a theoretical point of view, the relationship between organizational identity core attribute that mutually define the characteristics of its stability and its consistency; test the utility of the sensemaking construct in another Museum, maybe not a corporate one; explore the question of the incomplete circle of communication by applying the dynamics of sensemaking and sensegiving, where sensegiving is the power to influence and inform the conscious sensemaking.

References

Contact the author for the list of reference

APPENDIX A

Demographics of the administrators of the company and of the Museum

Name (fancy)	Museum/ Organization	Other roles in the company	Structured/ not structured	Name (fancy)	Museum/ Organization	Other roles in the company	Structured/not structured
Lola	M	Yes	S	Dana	M	No	S
Rina	M	No	S	Anna	M	No	NS*
Clara	M	No	NS*	Alessio	O	No	S
Romoaldo	M	No	S	Falco	O	No	S

*NS: interns recent graduates with a six-month contract

APPENDIX B

Demography of the respondent visitors of the Museum

Number	First visit	Age	Italian/STranger Alone/Group	Number	First visit	Age	Italian/STranger Alone/Group	Number	First visit	Age	Italian/STranger Alone/Group	Number	First visit	Age	Italian/STranger Alone/Group
1	yes	31-45	IT G	21	yes	>65	IT G	41	yes	31-45	IT G	60	yes	31-45	ST G
2	yes	31-45	IT G	22	yes	>65	IT G	42	yes	18-30*	ST G	61	yes	18-30	ST G
3	yes	31-45	IT G	23	yes	>65	IT G	43	yes	18-30*	ST G	62	yes	46-65	ST G
4	yes	31-45	IT G	24	yes	>65	IT G	44	yes	18-30*	ST G	63	yes	18-30	ST A
5	yes	31-45	IT G	25	yes	>65	IT G	45	yes	46-65	ST G	64	yes	18-30	ST A
6	yes	>65	IT G	26	yes	>65	IT G	46	yes	46-65	ST G	65	yes	46-65	IT G
7	yes	>65	IT G	27	yes	>65	IT G	47	yes	46-65	ST G	66	yes	46-65	IT G
8	yes	31-45	IT G	28	yes	31-45	ST A	48	yes	46-65	IT A	67	yes	46-65	IT G
9	yes	46-65	ST A	29	yes	18-30*	ST A	49	yes	31-45	IT A	68	yes	46-65	IT G
10	yes	18-30	ST A	30	yes	31-45**	IT G	50	yes	>65**	IT G	69	yes	31-45	ST G
11	yes	18-30	ST A	31	yes	31-45**	IT G	51	yes	>65**	IT G	70	yes	31-45	ST G
12	yes	46-65**	ST G	32	yes	31-45	IT G	52	yes	>65	IT G	71	yes	31-45	ST G
13	yes	46-65**	ST G	33	yes	31-45	IT G	53	yes	>65	IT G	72	yes	18-30	ST G
14	yes	18-30*	ST G	34	yes	31-45	IT G	54	yes	18-30*	IT G	73	yes	18-30	ST G
15	yes	18-30*	ST G	35	yes	31-45	IT G	55	yes	18-30*	IT G	74	yes	18-30*	ST G
16	yes	18-30*	ST G	36	yes	31-45	IT G	56	yes	18-30*	IT G	75	yes	18-30*	ST G
17	yes	18-30*	ST G	37	yes	31-45	IT G	57	yes	18-30*	IT G	76	yes	18-30	ST G
18	yes	18-30*	ST G	38	yes	31-45	IT G	58	yes	18-30*	IT G	77	yes	46-65**	IT G
19	yes	>65**	IT G	39	yes	31-45**	IT G	59	yes	46-65	ST G	78	yes	46-65**	IT A
20	yes	>65**	IT G	40	yes	31-45**	IT G	60	yes	31-45	ST G	79	yes	18-30*	IT A

End Notes

¹ Article 3 - Definition of Terms, Section 1. Museum. A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.

² Born in Milan in 2001 with the aim of identifying, promoting and networking the companies that have chosen to focus on the culture in their communication strategies as a tool for economic development and added value for the company.

Joint Effects of Message Framing and Evidence Type on Early Disease Detection and Prevention Messages

Yam B. Limbu, limbuy@mail.montclair.edu
C. Jayachandran, jayachandranc@mail.montclair.edu
Christopher McKinley, mckinleyc@mail.montclair.edu
Montclair State University - USA

Joint Effects of Message Framing and Evidence Type on Early Disease Detection and Prevention Messages

Keywords: Message framing, evidence type, prevention message, detection message, cognitive processing

Introduction

Message framing is a commonly used health communication strategy that presents the same message using either positive (i.e., gain-framed) or negative (loss-framed) light. In health communication context, a gain-framed message accentuates the benefits of engaging in a health behavior, while a loss-framed message highlights the costs of not complying with a recommended health behavior. Message framing has not only been a much debated tactic in health communication, previous research yielded inconsistent results with regard to framing effects on persuasiveness of health messages (Gallagher and Updegraff 2012). The theoretical framework proposed by Rothman and Salovey (1997) suggests that the effect of message framing on persuasion depends on the type of recommended health behavior. Gain-framed messages are more persuasive than loss-framed messages for promoting preventive health behaviors (e.g., quitting smoking, using sunscreen, regularly brushing and flushing teeth) with a minimal risk (Detweiler et al. 1999; Rothman et al. 1993). However, in case of a message for promoting detection health behaviors (e.g., screening mammograms, cancer screening, HIV testing) that communicates a higher degree of threat of not complying with recommended health behavior; loss-framed messages are believed to be more persuasive. These propositions receive some support (Meyerowitz and Chaiken 1987; Banks et al. 1995; Schneider et al. 2001; O'Keefe and Jensen 2007, 2009; Garcia-Retamero and Cokely 2011). However, findings of other studies do not support the premise (Lalor and Hailey 1990; O'Keefe and Wu 2012).

Health communication literature on the persuasiveness of types of message evidence, especially narrative or exemplar (e.g., qualitative information such as analogies, stories, testimony) versus statistical (e.g., quantitative evidence such as statistics, empirical data), offers ambiguous conclusions. A number of studies found that message with narrative evidence can be more effective than statistical evidence (e.g., Rook 1987; Banks et al. 1995; Cox and Cox 2001; Feeley et al. 2006; Banerjee and Greene 2012), while others report just the opposite (e.g., Greene and Brinn 2003; Slater and Rouner 1996). Other studies conclude that there is no difference in the persuasive effect between evidence types or both types of evidence are equally effective in changing attitudes (Kazoleas 1993; Kopfman et al. 1998; Morman 2000; Limon and Kazoleas 2004). To shed further light on this ambiguity, there is a call for further investigation to understand at what conditions statistical versus narrative evidence produces more persuasive effects (e.g., Greene and Brinn 2003; O'Keefe 2002). In the context of health communication, the present study maintains that the narrative and statistical information elicit different levels of influence on information processing, attitudes, and intentions depending on the type of recommended health behavior.

To date, only three studies attempted to examine the joint effects of message framing and evidence type on health communication messages (i.e., Cox and Cox 2001; Yu et al. 2010; and Gray and Harrington 2011). Cox and Cox (2001) examined this proposition with 174 women in the context of early disease detection behavior (i.e., communicating the use of mammography), which concludes that positive anecdotes are less persuasive than negative anecdotes. But the focus of Yu et al.'s study was prevention (i.e., communicating fetal alcohol spectrum disorder, FASD). Their study relied in a small convenient college student sample ($n=213$) and offered mixed results in which both loss-exemplar and gain-statistical appeals had been found to have unique advantages in predicting attitudes and behavioral intentions toward FASD. Another experimental study by Gray and Harrington (2011) examined framing-evidence interaction effects in the context of prevention (i.e., physical exercise) using a sample of 345 college students but their results do not provide empirical support.

Scholars stress that there is a need for more empirical research to examine the contexts in which health messages are more persuasive (e.g., Cappella 2006; Gallagher and Updegraff 2012). Researchers also call for more substantive research to examine the relative effectiveness of loss- versus gain-framed messages and their interaction effects with narrative and statistical evidence in motivating prevention behaviors (Cox and Cox 2001; Gray and Harrington 2011). Yet, no study has examined the efficacy of framing-evidence interaction simultaneously in the

contexts of disease prevention versus detection as stressed by Rothman and Salovey (1997). The current study aims to fill the gap and proposes a comprehensive framework that will examine the combined effects of message framing and evidence type in both detection (mammography) and prevention (quitting smoking) contexts. Understanding how evidence type would interact with message framing and how such interaction affects consumers' attitudes and intentions are important for practitioners engaged in spreading health messages as they usually blend message-framing elements with different types of evidence within their advertising messages.

Spending on health communication in low-income courtiers continues to rise, especially to promote disease prevention (e.g., condom use, anti-smoking) and detection (e.g., eye examination, cancer screening). Most research on message framing and evidence type have been developed and tested in developed and western countries, primarily in the United States, but their influence on the health behavior of population in non-Western countries received little attention and therefore, our study centers on those issues in a non-Western context.

Rothman and Salovey (1997) indicate that cognitive processes may mediate the influence of framed information on health judgment and behavior. Similarly, the efficacy of narrative versus statistical evidence may be rooted in differences in the psychological processes that mediate the impact of message evidence on persuasion (de Wit, Das, and Vet 2008). Another study asserts that the persuasive effect of message evidence is generally believed to rely on cognitive processing of the presented information (Reinard 1988). Our study will contribute to literature by exploring mediating role of cognitive processing when examining the effects of message framing and evidence on attitudes and behavioral intentions.

Proposed Model and Propositions

We propose a comprehensive framework for understanding how a loss-gain framed message combined with statistical-narrative evidence directly and indirectly influence effectiveness of preventive versus detective health messages. Our arguments rest on the premise that the persuasiveness of these strategies can vary depending on the purpose of health messages. For example, a loss-framed narrative message, as compared to a gain-framed narrative message, could influence an individual's attitudes and intentions relatively in a different way while promoting a preventive care rather than recommending a detection behavior.

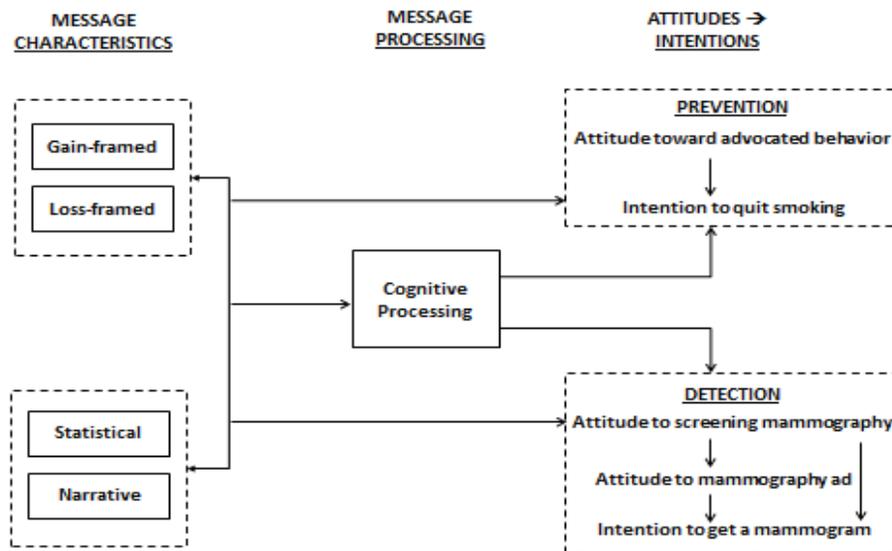


FIG.1: A MODEL OF MESSAGE FRAMING AND EVIDENCE IN PROMOTING PREVENTION AND DETECTION

Message Framing-Evidence Type Effects on Attitude and Intention

According to prospect theory, persuasiveness of messages partly depends on how these messages are framed (Tversky and Kahneman 1981). The theory shows that a negatively-framed message that accentuates the costs of not complying with recommended health behavior can be effective for advocating a high-risk health behavior (e.g., disease detection behavior). Some empirical evidence has been found to support this contention. For example, Meyerowitz and Chaiken (1987) revealed a superior influence of a loss-framed pamphlet over a pamphlet with arguments framed in gain language in improving women's breast cancer screening attitudes, intentions, and behaviors.

Exemplification theory (Zillmann 2006) indicates that exemplar information can be more persuasive in influencing attitudes and behaviors than statistical evidence. One reason is that narrative messages are easy to process and retrieve from memory (Gray 2009).

Literature also uncovers that loss-framed messages combined with narrative information can be persuasive in promoting detection behavior (especially endorsing a mammogram) because such messages emphasize risk and deliver more prevailing arguments of not complying with the recommended behavior (Cox and Cox 2001). A loss-framed message elicits higher levels of severity and fear than the gain-framed message when presented within the context of narratives rather than statistical evidence (Yu et al. 2010). Thus, we predict the following:

Proposition 1: For a narrative message promoting early disease detection, loss-framing will be more persuasive than gain-framing.

In regard to preventive health communication, people are more receptive to gain-framing than loss-framing messages because preventive behaviors have few negative consequences (Detweiler 1999; Rothman and Salovey 1997). Prospect theory suggests that a positively-framed message that highlights the benefits of complying with advocated behavior can be effective in promoting a low-risk behavior (Tversky and Kahneman 1981).

Research also indicates that a narrative message may not be effective when promoting a low-risk health behavior and it indeed may demonstrate a boomerang effect. In contrast, health communication with statistical information can be more persuasive in promoting preventive behavior. Few studies found some support for the notion that statistical messages as opposed to narratives are more persuasive (Greene and Brinn 2003; Slater and Rouner 1996; Allen and Preiss 1997). For example, Greene and Brinn (2003) found an advantage of statistical messages over narrative messages in reducing use of tanning beds. Additionally, *alcohol education messages with statistical evidence were rated more persuasive and believable than anecdotal evidence among individuals for whom the message was congruent with recipients' own values regarding alcohol use* (Slater and Rouner 1996). The Elaboration Likelihood Model (Petty and Cacioppo 1986) further suggests that statistical evidence can be persuasive among the message recipients who are highly involved with the topic.

A study suggests that a prescription drug advertisement that emphasizes the positive consequences of taking medications combined with statistical message is more effective than using broad statements (Ju and Park 2013). A gain-framed message with statistical appeal demonstrates a stronger impact on an individual's perceived external efficacy (one's belief that a particular disease can be prevented) and perceived internal efficacy (one's beliefs about her/his ability to prevent disease) than loss-framed statistical message appeal (Yu et al. 2010). Based on the above, we postulate that a message suggesting benefits of not smoking combined with statistical evidence will be persuasive in encouraging quitting smoking.

Proposition 2: For a statistical message promoting preventive care, gain-framing will be more persuasive than loss-framing.

Mediating Role of Cognitive Processing

Two dominant theories of persuasion namely the Elaboration Likelihood Model (Petty and Cacioppo 1986) and the Heuristic-Systematic Model (Chaiken 1980) state that people *can engage in either systematic/cognitive or heuristic/peripheral information processing* and attitude change may take place through one of these forms of processing. Cognitive processing occurs when individuals engage in a careful, effortful, and deep thinking about the advocated messages. Under cognitive processing, people actively attempt to understand and evaluate the message's arguments and attitudes are then formed based on the conclusions from this careful consideration of the information. Thus, cognitive processing relies heavily on the strength of message content and how the messages are presented. The current study

centers on cognitive aspect of information processing because health communication campaigns associated with prevention and disease detection behaviors involve perceived risk of not following the recommendations.

Message framing strategy can determine how a message is scrutinized and processed. When individuals are involved with an issue that embraces potential threats (e.g., breast cancer), negatively worded arguments with vividness of stories should lead to a higher level of cognitive processing than the abstract messages containing only numerical or general statements (Rothman 2006). *Because* loss-framed messages promoting more extreme outcomes, especially those that are arousing, require more resources to encode and elicit more cognitive thoughts than gain-framed messages, individuals are likely to engage in more extensive message processing (Smith and Petty 1996; Leshner and Cheng 2009). In contrast, gain-framed messages can produce a higher level of cognitive processing, when individuals are not involved with an issue or the relevance and salience of an issue or a situation to them is relatively low such as engaging in preventive care (Rothman 2006).

Reinard (1988) argues that the persuasive effect of message evidence depends on cognitive processing of the presented information. Narrative evidence is superior in conveying personal health risks than statistical evidence (de Wit, Das, and Vet 2008). Studies show that subjects in high-risk condition, compared to low-risk condition, are more likely to engage in higher levels of message processing (Maheswaran and Meyers-Levy 1990; Meyers-Levy and Maheswaran 2004). According to Gray (2009, pp 9), “Narrative featuring characters within a health context may be more persuasive due to these elements of cognitive processing, likely as long as characters are representative, issues are salient to the targeted population, and information is presented in a vivid manner.”

In line with some studies (e.g., Reinard 1988; Rothman and Salovey 1997; de Wit, Das, and Vet 2008), *it is our contention that* the joint effects of message framing and evidence type on attitudes and intentions will be mediated by cognitive processing. We argue that message framing might interact with evidence type through cognitive processing because specific combination of evidence and frames might generate greater levels of cognitive processing which in turn positively affects attitudes and intentions.

Proposition 3: Cognitive processing will mediate the combined effects of message framing and evidence type on attitude and intention.

- a. For a narrative message promoting early disease detection, loss-framing will lead to greater cognitive processing which in turn is positively related to attitude and intention than gain-framing.
- b. For a statistical message promoting preventive care, gain-framing will lead to greater cognitive processing which in turn is positively related to attitude and intention than loss-framing.

Relationship between Attitudes and Behavioral Intentions

The theory of planned behavior (Ajzen 1985) states that behavioral intention is formed in part by an individual’s attitude. Thus, attitude toward advocated behavior can shape one’s intention to quit smoking. Likewise, an individual’s intention to get a mammogram is formed by one’s attitude toward screening mammography as well as one’s attitude toward mammography advertisement.

Proposition 4a: Attitude toward advocated behavior about smoking is positively related to intention to quit smoking.

Proposition 4b: Attitude toward screening mammography is positively related to attitude toward mammography advertisement. Both attitude toward screening mammography and attitude toward mammography advertisement are positively related to intention to get a mammogram.

Conclusion

Message framing has been a much debated approach in health communication and prior research yielded inconsistent results with regard to framing effects on persuasiveness of health messages. Similarly, previous research that examined the effectiveness of narrative versus statistical evidence offered ambiguous conclusions. To shed further light on this ambiguity, our study proposes a comprehensive framework that will examine the combined effects of message framing

and evidence type in both detection (mammography) and prevention (quitting smoking) contexts. The current study also investigates the mediating role of cognitive processing when examining the effects of message framing and evidence on attitudes and behavioral intentions.

References

- [1] Allen, M., and Preiss, R. W. (1997). Comparing the persuasiveness of narrative and statistical evidence using meta-analysis. *Communication Research Reports*, 14, 125-131.
- [2] Azjen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 11-40). Berlin, Germany: Springer-Verlag.
- [3] Banerjee Smita C. and Kathryn Greene (2012), Role of Transportation in the Persuasion Process: Cognitive and Affective Responses to Antidrug Narratives, *Journal of Health Communication: International Perspectives*, 17:5, 564-581
- [4] Banks, Sara M.; Salovey, Peter; Greener, Susan; Rothman, Alexander J.; Moyer, Anne; Beauvais, John; and Epel, Elissa (1995), The effects of message framing on mammography utilization. *Health Psychology*, 14(2), 178-184.
- [5] Cappella, J. N. (2006). Integrating message effects and behavior change theories: Organizing comments and unanswered questions. *Journal of Communication*, 56, S265-S279.
- [6] Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, 39, 752-766.
- [7] Cox, D. and Cox, A. D. (2001). Communicating the consequences of early detection: The role of evidence and framing. *Journal of Marketing*, 65(3), 91-103.
- [8] Detweiler, J. B., Bedell, B. T., Salovey, P., Pronin, E., and Rothman, A.J. (1999), Message framing and sunscreen use: Gain-framed messages motivate beach-goers. *Health Psychology*, 18, 189-196.
- [9] de Wit, J. B., Das, E., and Vet, R. (2008). What works best: objective statistics or a personal testimonial? An assessment of the persuasive effects of different types of message evidence on risk perception. *Health Psychology*, 27, 110-115.
- [10] Feeley, T. H., Marshall, H. M., and Reinhart, A. M. (2006). Reactions to narrative and statistical written messages promoting organ donation. *Communication Reports*, 19, 89-100.
- [11] Gallagher, Kristel M. and John A. Updegraff (2012), Health Message Framing Effects on Attitudes, Intentions, and Behavior: A Meta-analytic Review, *Annals Behavioral Medicine*, 43 (1), 101-116
- [12] Garcia-Retamero, R., and Cokely, E.T. (2011), Effective communication of risks to young adults: Using message framing and visual aids to increase condom use and STD screening. *Journal of Experimental Psychology: Applied*, 17, 270-287.
- [13] Gray, Jennifer B. (2009), The power of storytelling: Using narrative in the healthcare context, *Journal of Communication in Healthcare*, 2(3), 258-273.
- [14] Gray, J. B., and Harrington, N. G. (2011). Narrative and framing: A test of an integrated message strategy in the exercise context. *Journal of Health Communication*, 16(3), 264-281.
- [15] Greene, K., and Brinn, L. S. (2003). Messages influencing college women's tanning bed use: statistical versus narrative evidence format and a self-assessment to increase perceived susceptibility. *Journal of Health Communication*, 8, 443-461.
- [16] Ju, Ilwoo and Jin Seong Park (2013), When Numbers Count: Framing, Subjective Numeracy, and the Effects of Message Quantification in Direct-to-Consumer Prescription Drug Advertisements, *Journal of Promotion Management*, 19 (4), 488-506.
- [17] Kazoleas, D.C. (1993). A comparison of the persuasive effectiveness of qualitative versus quantitative evidence: A test of explanatory hypotheses. *Communication Quarterly*, 41, 40-50.
- [18] Kopfman, J. E., Smith, S. K., Ah Yun, J., and Hodges, A. (1998). Affective and cognitive reactions to narrative versus statistical organ donation messages. *Journal of Applied Communication Research*, 26, 279-300.
- [19] Lalor, K. M., and Hailey, B. J. (1990). The effects of message framing and feelings of susceptibility to breast cancer on reported frequency of breast self-examination. *International Quarterly of Community Health Education*, 10, 183-192.
- [20] Leshner, Glenn and I-Huei Cheng (2009), The Effects of Frame, Appeal, and Outcome Extremity of Antismoking Messages on Cognitive Processing, *Health Communication*, 24: 219-227.

- [21] Limon, M. Sean and Dean C. Kazoleas (2004), A comparison of exemplar and statistical evidence in reducing counter-arguments and responses to a message, *Communication Research Reports*, 21(3), 291-298
- [22] Maheswaran D. and Meyers-Levy J. (1990), The influence of message framing and issue involvement. *Journal of Marketing Research*, 27(3), 361-367.
- [23] Meyerowitz, B. E., and Chaiken, S. (1987). The effect of message framing on breast self-examination attitudes, intentions, and behavior. *Journal of Personality and Social Psychology*, 52, 500-510.
- [24] Meyers-Levy J, and Maheswaran D. (2004). Exploring message framing outcomes when systematic, heuristic, or both types of processing occur. *Journal of Consumer Psychology* 14(1&2), 159-167.
- [25] Morman, M. T. (2000). The influence of fear appeals, message design and masculinity on men's motivation to perform the testicular self-examination. *Journal of Applied Communication Research*, 28, 91-116.
- [26] O'Keefe, D. J. (2002). *Persuasion, theory & research* (2nd ed.). Thousand Oaks, CA: Sage.
- [27] O'Keefe, Daniel J. and Daisy Wu (2012), Gain-Framed Messages Do Not Motivate Sun Protection: A Meta-Analytic Review of Randomized Trials Comparing Gain-Framed and Loss-Framed Appeals for Promoting Skin Cancer Prevention, *Int. J. Environ. Res. Public Health* 2012, 9, 2121-2133
- [28] O'Keefe, Daniel J. and Jakob D. Jensen (2007), The Relative Persuasiveness of Gain-Framed Loss-Framed Messages for Encouraging Disease Prevention Behaviors: A Meta-Analytic Review, *Journal of Health Communication*, 12(7), 623-644.
- [29] O'Keefe DJ and Jensen JD (2009). The relative persuasiveness of gain-framed and loss-framed messages for encouraging disease detection behaviors: A meta-analytic review. *Journal of Communication*, 59 (2), 296-316.
- [30] Richard E. Petty and John T. Cacioppo (1986), *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. New York: Springer-Verlag.
- [31] Reinard, J. C. (1988). The empirical study of the persuasive effects of evidence: The status after fifty years of research. *Human Communication Research*, 15, 3-59.
- [32] Rook, K. S. (1987). Effects of case history versus abstract information on health attitudes and behaviours. *Journal of Applied Social Psychology*, 17, 533-553.
- [33] Rothman, A. J., and Salovey, P. (1997). Shaping perceptions to motivate healthy behavior: The role of message framing. *Psychological Bulletin*, 121, 3-19.
- [34] Rothman, A. J., Salovey, P., Antone, C., Keough, K., and Martin, C. D. (1993). The influence of message framing on intentions to perform health behaviors. *Journal of Experimental Social Psychology*, 29, 408-433.
- [35] Schneider, T. R., Salovey, P., Apanovitch, A. M., Pizarro, J., McCarthy, D., and Zullo, J., et al. (2001). The effects of message framing and ethnic targeting on mammography use among low-income women. *Health Psychology*, 20, 256-266.
- [36] Slater, M. D., and Rouner, D. (1996). Value-affirmative and valueprotective processing of alcohol education messages that include statistical evidence or anecdotes. *Communication Research*, 23, 210-235.
- [37] Smith, S. M. and Petty, R. E. (1996). Message framing and persuasion: A message processing analysis. *Personality and Social Psychology Bulletin*, 22, 257-268.
- [38] Tversky, A., and Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453-458.
- [39] Yu, N., Ahern, L. A., Connolly Ahern, C., and Shen, F. (2010). Communicating the risks of fetal alcohol spectrum disorder: Effects of message framing and exemplification. *Health Communication* 25 (8), 692-699.
- [40] Zillmann, D. (2006). Exemplification effects in the promotion of safety and health. *Journal of Communication*, 56, S221-237.

Corporate Success: An Analysis of Customer Engagement and Brand Loyalty

Deeksha Madhusudhan, deekshamadhus@gmail.com

Aqila Rafiuddin, aqila@dubai.bits-pilani.ac.in

BITS Pilani Dubai Campus, UAE

Corporate Success: An Analysis of Customer Engagement and Brand Loyalty

Abstract

In main aim of this paper is to analyze how customer engagement affects the brand loyalty of a company let it be a well-established multi-national company or a recently started company. In this world with an ever growing population, for a brand to make its impact on the customer is very important to survive. A study of how the profits get affected by the high end users on famous brands will be analyzed. This depicts whether the product should continue to be in the market or if it should be scrapped. The paper concludes with the proof that having a product not necessarily increases the profits of a company but having a well- defined and an ever growing consumer base will help the company.

Introduction

Customers are the most important assets to any company, be it a small and medium enterprise (SME) or a multi-national company(MNC), so to retail customers and increase a brand loyalty, marketers target a specific section of a group or a community. The companies also aim towards a high profit margin, so what better to give a profit than a highly reputed brand. It becomes highly important as to learn the schemes and tactics used to handle the targeted portion of customers. What a customer chooses to buy at the end of the day solely depends on him/her. A rich women may settle for a mass produced purse or a billionaire might settle to buy a Honda instead of a Rolls Royce, so this scenario is unpredictable. Therefore these variations in the customers has increased the importance of consumer engagement.

Consumer Engagement as Consumer Behavior

Creating and simulating consumer engagement among each group of the population has become the main aim for all organizations, profitable and non-profitable alike as they would like to expand their business further. A consumer's engagement in the company the method in which makes the company unique so as to strength the investment the consumer made to that company. It is obvious that the positive gains the consumer has received from the company or organization cements the loyalty of the customer to the brand and organization alike, but the company has to make a continuous effort to maintain that loyalty. This can be done in a multiple number of ways, the most common being notifying the customer about the upcoming sales, giving them added benefits of buying from the brand label and to involve in what the customer invests personally.

The most important thing to be noted about consumer engagement is the satisfaction of the customer. This in fact holds good to every product be it a hand-made label or a mass produced good, as if a person is satisfied with the product the loyalty towards the brand or organization increases and the company retains its customer. This in turn leads to word-of-mouth advertising, which is proved to be the most effective way of marketing. It is more likely that a potential customer will believe an existing customer about the product than an advertisement on a television. This proves to be very effective with highly engaged customers.

Objectives

- To show the improvement on sales of a company due to consumer engagement.
- To analyze how companies used consumer engagement strategies.
- To show the need of consumer engagement in today's world.

Review of Literature

The focus of marketing shifted its focus from the product to its consumers after realizing that the consumers can either make or break the brand and the company. Previously firms believed that once their product was out in the market, it would sell on its own; for a while it did as their product was unique and marketing it was unnecessary, but with the coming of the Industrial Revolution and the introduction of mass produced goods, a particular type of product was available in surplus. Now the customer had a variety of options to choose from. Thus firms started losing its customers and hence the profits gradually declined. In order to overcome this, companies began to target specific audiences from each section of the population. Although the products they sell; regardless of whether they are hand-made or mass produced serve the same purpose, the fact that the product had a famous brand name backing it up, attracted the customers.

There is a prevailing conception of customer engagement as a way to create deeper and more lasting customer brand relationships (Kumar et al., 2010) making it important for brands to be successful. When a customer buys a certain product, the first thought that would be in the mind depends on their background, if a customer is a well off, they would think on which new high end label should they explore and if a medium wage earner, they check for durability. Each of these cases hold importance in its own way. If the well off customer likes the new brand label he/she tried, they would market it to their friends and in the process the brand gains a new consumer base of high paying customers or the vice - versa would happen and the firm would lose the customer. If the medium wage earner has the product which lasts longer, the firm gains customers as well, sometimes more than the high end customers, but the profit the company gets varies.

Building a strong brand with significant equity is seen as providing a range of possible benefits for a firm, including greater customer loyalty and less vulnerability to competitive marketing actions or crises, among others (Keller, 2001). Researchers that have studied the effects of different types of brands used a number of different proxies for 'strong' or 'high equity' brands (Hoeffler & Keller, 2003), but ultimately there seems to be an agreement that building strong brands refer to increasing the intrinsic value of a brand, or more directly increasing brand equity.

Research/Methodology

Since the project is an Empirical study project, the information is collected quantitatively by the looking for sources of information from various online sources. An analysis of how big and well named companies such as Rolls Royce is seen as to how they attract their customers. As well as the schemes used by the marketing heads popular fashion companies like Louis Vuitton and Ferragamo to expand their customer base. Additionally, as suggested by Hair et al (2002), some other considerations such as data availability, data quality, costs, and time constraints are taken into account in determining the research design and data sources.

Problem Statement

The question that needs to be answered is that why was consumer engagement needed and why is it important for the success of any brand. One of the reasons is that the earlier approach to marketing which was widely based on advertisements has been decreased by a significant amount in the last few decades. No one these days pays attention to the advertisements playing in the background, they simple mute or change the channel. This is because the audience who watched television in the 1990s and the audience who watch television now are completely different. It is the age group of 18-25 years who generally sit in front of a television and watch shows now, whereas, in the 1990s everyone would watch. Also, the new generation spend most of their time online surfing the net and watching movies online. Though there is a conscious effort to show advertisements on popular websites such as YouTube, it is hardly effective. Hence to capture the attention of a consumer is proving to be more difficult by the day.

The other reason is the fall in the brand loyalty. With the coming of internet shopping and the ever increasing competition. It was a challenge for the brand labels to compete with the difference in prices that were offered by the

online shopping websites which were significantly less as compared to those available in shops. Also with the decrease in the trust with advertisements, it became essential to stimulate consumer engagement to improve brand loyalty.

The introduction of consumer engagement seems like a risky business because it is targeted to only a certain section of the population whereas the other sections seem isolated. A good example of this is how big names such as Rolls Royce and Bugatti aim at high paying customers. They make custom made cars which appeal and attract these customers. This isolates the medium wage earners. The risk these companies take may be beneficial or disastrous. Beneficial if they are able to make a sale or several of the cars and disastrous if no one buys them or recession strikes.

Rolls Royce Study

The English manufacturing company Rolls Royce, would target highly engaged customers. For this they would create custom made cars which would appeal to the buyers as they would be unique and one of a kind. They would manufacture cars with different interiors and the color of the exterior as per the liking of the consumer but retain the structure and the body of the car to be the general one like Rolls Royce Phantom. This sure did attract middle age group of the rich population but failed to appeal to the younger generation. Surely they did want a Rolls Royce, but having a Ferrari or a Lamborghini seemed to be a better option because of the speed and also that they were available as a convertible.

Seeing that they did not hold the attention of the young millionaires, heirs/heiresses and celebrities, Rolls Royce thought out of the box and began to design a new and younger looking model which not only appealed to the middle age group but also to the youngsters. The solution for this came as Rolls Royce Phantom Drop Head Coupe. This new car was like a hybrid between class provided by the Rolls Royce Phantom and the suave provided by a sports car. It debuted in the market on 7th January 2007 and in its first year in the market, made its impact worldwide. The first car to be sold in the US was auctioned for charity, it was bought by a local real estate developer and is said to be the highest bid ever for a newly launched car.

Looking into the sales of Rolls Royce, it sold 805 cars in the year 2006, with the launch of Rolls Royce Phantom Drop Head Coupe in 2007, Rolls Royce sold 1,010 cars with 253 cars being the new convertible. This is a significant increase to the sales for the company, as the convertible is the most expensive model of Rolls Royce surpassing its predecessor.

Rolls Royce has a very meticulous method it uses to meet the expectations of its consumers and to develop its new models to increase its brand loyalty. They keep a database of all its existing customers, when a new idea for a car is in process they keep the customers updated and inform them of any recent developments well in advance. Also, they take into account any added insight the customer has to offer about any changes, glitches or ideas. With this the customers remain ever loyal to the brand and never seem to move very far from it. These days to increase its consumer base even further they plan to come up with a more affordable model for everyone.

Louis Vuitton Study

Louis Vuitton Malletier is a French Fashion House founded in 1854. This popular label is the world's most valuable luxury brand and is known to all. It is ranked number 10 in the world's most Valuable Brands. This brand is known for its leather products, bags, shoes, watches and jewelry. It is one of the most profitable brands with the profit margins approaching 40%. So to keep the profits flowing and to increase the profit margin, the executives of Louis Vuitton Moët Hennessy (LVMH), a parent company to Louis Vuitton, decided to increase the prices of its products because of the increasing luxury - hungry customers in the emerging markets. They aim at getting customers who would not mind paying an extra \$500 over an existing total of \$10000.

With this introduction the sales of the LVMH increased 4.3% in the Paris Trading. This was a good news for Hennessy as it was able to cushion the blow for the decline in the alcohol sales. This however did not prove to be beneficial for the entry level customers who get attracted to the logo printed onto the leather of the bags.

The cause for Louis Vuitton to take such a measure was because in the recent years with the coming of the 'democratic fashion' moment which redefined the borders of luxury; some product with a famous brand name that was considered available only to the rich and exclusive is now accessible to masses due to the collaboration of companies with affordable brands.

For instance, Coach sold a bag worth \$400 in the Chinese market impacting the sales of Louis Vuitton bags in that region. Also Kate Spade which took inspiration from Ralph Lauren's growth strategy, aims on becoming a lifestyle brand offering a wide range of products and creating a diverse portfolio that will attract customers from various backgrounds and incomes.

To counteract this designer brands are rising their prices thinking that making their product exclusive and expensive will therefore make the more desirable over the 'ordinary' goods. With this the company is able to retain its old consumer base and is able to expand it by attracting the new high end customers who want to step aside from the 'ordinary'

Even with the price increase Louis Vuitton seems to maintain its growth rate. The company climbs steadily from with profits of 2,160 million in 2006 to 3,909 million in 2012. It is ever growing and acquiring new and existing brands under its label to make sure the profit and the profit margin stay high.

Findings

Rolls Royce had a good number of sales before the introduction on Phantom Drop Head Coupe but the introduction boosted the sales. Louis Vuitton is known for its high end products, by increasing the prices it made the customers feel one of a kind and important. There is a drop in sales of both the companies in 2009 due to recession, but it was the ability of the companies to adapt itself to this and with the help of its consumer base were able to bounce back into the field with no major losses.

Conclusion

As seen in the research done above, it is safe to conclude that famous label mould their strategies and marketing schemes not only for the change in the growing and expanding market but also to expand its consumer base. It is evident that for a company to gain the maximum profit and to expand it should have good consumer base.

Managerial Implications

A consumer is like a new born infant to a company. The organization has to take care of every need they have and look after it well. The relationship between the customer and the brand develops like the attachment a child has to its parents or sibling. They will value, respect and be loyal to the company. So if an organization is able to cater the needs and desires of any customer they will be loyal.

Expanding the consumer base is similar to when a child or a teenager bring their friends over home for the first time. The child would have already explained how his/her family is but it is the first impression that the family makes on the friends that will creating a lasting impression on them. This determines whether they like you or if they will ever visit the family again. So when a new customer walks into the company for the first time, the way in which the staff or the sales executives are towards the customer depends on whether they will buy any product, keep coming back to shop more and whether they are going to expand the consumer base even further.

The product may be an exclusive and unique but with a bad customer service even a famous label may lose its customers. So more than having a right product a company needs to have proper personnel to make a lasting impression on the consumer and to solidify the relationship between them.

Scope for the Future

The concept of implementing consumer engagement in the stores owned by brands is relatively new. There is a lot of scope for it in the future, especially if brands develop on the concept of interactive experiences sans sales personnel. Also having a well defined sales team will play a vital role in expanding a company's business and hence its future.

References

- [1] Keller, K. L. (1987), "*Memory Factors in Advertising: The Effect of Advertising Retrieval Cues on Brand Evaluations*," *Journal of Consumer Research*, 14 (December), 316-33
- [2] Kelesidou, F. 2014, *Market Beating community*, Available online <http://www.fool.com/investing/general/2014/03/11/why-luxury-brands-like-louis-vuitton-are-raising-t.aspx>
- [3] Kumar, Nirmalya, Lisa K. Scheer, and Jan-Benedict E.M Steenkamp (1995), "*The Effects of Supplier Fairness on Vulnerable Resellers*," *Journal of Marketing Research*, 32 (February), 54-65.
- [4] Kuzgun,E (2012), *Brand Loyalty's Impact on Customer Engagement in Virtual Brand Communities – by the case of Turkish Market*. Master Thesis, Copenhagen Business School.
- [5] Lin, C.J., & Lu, H. (2000). *Towards an understanding of the behavioral intention to use a web site*. *International Journal of Information Management*,20(3), 197-208
- [6] Lindlof, T., & Taylor, B. (2002). *Qualitative communication research methods (2nd ed.)*. Thousand Oaks, CA: Sage Publications
- [7] McAlexander, J., Kim, S., & Roberts, S. (2003). *Loyalty: the influences of satisfaction and brand community integration*. *Journal of Marketing – Theory and Practice*, 1-11.
- [8] Matzler, K., Grabner-Krauter, S., & Bidmon, S. (2008). *Risk aversion and brand loyalty: The mediating role of brand trust and brand affect*. *Journal of Product and Brand Management*, 17(3), 154-162
- [9] Mull, A. 2013, *Purse Blog*, Available online : <http://www.purseblog.com/louis-vuitton/louis-vuitton-raises-prices-in-hopes-of-attracting-more-high-end-customers.html>
- [10] Oliver, R.L. (1997), *Satisfaction: A behavioral perspective on the consumer*, Boston: McGraw-Hill
- [11] Oliver, R.L. (1999). *Whence consumer loyalty?* *Journal of Marketing*, 63(4), 33–44
- [12] Roberts, A. 2014, *Bloomberg*, Available online: <http://www.bloomberg.com/news/2014-04-09/lvmh-s-accelerating-fashion-sales-help-cushion-alcohol-decline.html>
- [13] Wikipedia, 2014, *LMVH*
- [14] Wikipedia. 2014, *Consumer Engagement*
- [15] Wikipedia. 2014, *Rolls Royce*

**Managing and Evaluating the Corporate Brand:
A Model Suggestion Through the Case Analysis**

Fabrizio Mosca, fabrizio.mosca@unito.it

Cecilia Casalegno, cecilia.casalegno@unito.it

Dipartimento di Management, Scuola di Management e Economia, Università degli Studi di Torino

Managing and Evaluating the Corporate Brand: A Model Suggestion Through the Case Analysis

Abstract

In recent years many authors wrote about the importance of the corporate brand, by defining it as a tool to create value and to attract capital. Investors have confidence in a strong brand, the audience begins to trust in a known brand, as well as suppliers and dealers who want to enjoy the popularity of a certain firm brand when they distribute products.

The recent cases of Unilever and P&G reveal how the focus has been transferred from the product communication to the corporate one, now considered essential for the customer loyalty. Communication campaigns latest aim is to create a long-term relationship between the Group brand and the target audience, rather than "merely" the promotion of products in a period in which the audience receive too many messages related to too many products. The only way to avoid confusion is to communicate and emphasize the corporate brand: this implies a long-term dialogue with different audiences and the first part of this paper wants to investigate how.

The value identification of this intangible asset is possible if there are some reference conditions: first, the corporate brand must be recognizable at product or service level, secondly the corporate brand must be individually identifiable and transferable to third parties generating differential advantages for organizations can use it. The basic condition must be the possibility to identify it as an autonomous intangible asset, that gives to a company and its products and services an identification.

The reference methods to be considered are based on the historical cost basis, on the principle of differential results and the comparative criteria. Some other methods are focused on the systematic identification of loyalty resources connected with the corporate brand. Among the different criteria and methods is to identify which takes to a proper corporate brand evaluation, as intangible asset generating differential advantages in the long run and loyalty value.

The second part of the paper examines what criteria and methods are more appropriate in order to bring out the long-term value of the corporate brand.

Keywords: intangible assets, evaluation, integrated marketing communication, brand value corporate brand, reputation, stakeholder loyalty.

Introduction: the importance to evaluate the intangibles

Business management studies consider intangibles as a source of sustainable competitive advantage capable of creating value for all stakeholders. The intangible assets are formed by a set of generic and specific resources and expertise. The classifications of intangibles are numerous and come from both the doctrine, both national and international accounting standards and there is a substantial convergence of three characteristics that intangible assets must possess (Brugger, 1989): must have been generated by such utility costs deferred in time must be transferable, should be measurable in their value, separately from the other assets. In other word, the investment in intangible assets constitutes a buildup of potential (Vicari, 1992). The brand meets the criteria to be classified as an intangible asset as a summary of a set of resources, skills, investment capable of economic assessment in the long run: this is especially true when we talk about the corporate brand (Aaker, 1991, 1996, 2004a, 2004b). The goal of the present paper is, after having identified the brand as an intangible asset specific, to investigate measurement models of the brand and to identify the economic value of the concept of *brand equity* (Aaker, 1991, Pellicelli, 2010).

To reach the main goal, the present research has the following aims: to carry on a deep analysis concerning the most used and considered brand evaluation methods, to survey the evolution of the importance of the brand and the change of the affecting brand factor evaluation and, finally, to understand which is the most effective way for evaluating an intangible asset.

Corporate brand and firm communication: how to manage a strategic intangible asset

Who studied marketing knows how important can be for every organization to have a strong brand, able to acquire over time importance. Aaker (1991, 2004a, 2004b) considers the brand as a stretch of distinction compared to its

competitors, while Macrae (1991) adds a further suggestion: the brand is a vehicle of communication, is a symbol that refers to corporate culture values, shared inside and outside the organization. This is more true when the firm brand is considered: in this case the concept of perceived quality coming from the brand (Candelo, 2012) is enhanced and is embedded in the whole firm structure and organization. The brand, at this point, is not just a sign, a symbol created to sell more or to reach a better awareness degree, rather we are talking about the sum of what a firm wants to communicate to stakeholders. According to the most authoritative authors (Schultz, 1992, 1993; Kungram et al., 1994; Belch and Belch 1998, 2009), the strategic importance lies in the fact that when you communicate with the target audience a brand, the goal lies not so much in coordinating the communication tools of the brand, rather it becomes the identification of a process "brand communication, execution, continuous assessment, interactive, multi-function capable of integrating all parts of the enterprise to maximize the mutual satisfaction of needs and desired re "(Duncan, Mulhern, 2004). Considering the corporate brand, it is possible to talk about the synergy between the different communication tools: the integration efforts lead to better results than the sum of the effects of individual actions (Casalegno, Li, 2012). This is more true if we consider that nowadays organizations have to build a multidirectional communication plan (Romoli Venturi *et al.*, 2014) in order to give an answer to the stakeholders' need of firms' transparency. For instance, Ulrich and Smallwood (2008) consider how much the brand is today one of the vehicles on which is necessary to, as well as the basis of competitive advantage (Aaker, 1991, 2004b; Pellicelli, 2012; Candelo, 2012), firms' internal communication. If managers want, in fact, the efforts of (integrated) communication give planned effects, the same employees shall be involved in the condition of the vision values of corporate culture. The literature (Bridson, Evans, 2004) asserts that the clear brand identity must start from within the company to reach the values dissemination to the public. This is not all: investors feel more inclined to invest in companies that, in addition to demonstrating significant long-term trend in terms of financial results, prove to have a high index of brand equity (Aaker, 1991) and, in correlation, a high degree of reputation. Finally, brand equity and reputation affect suppliers, intermediaries, public opinion, government agencies. Stakeholders talk to each other, and their views are included in a constant stream of information that can therefore be voluntarily released to the environment by the firm or not. Is a strategic action, therefore, to prepare a communication plan linked to the corporate brand.

The corporate brand and its evaluation as intangible asset

The brand is the synthesis of trusted resources (Busacca, Bertoli, 2009) and of the relationship of the company with the market and is useful for the following functions: differentiation, guidance, assurance and personalization. The brand is an intangible specific susceptible to self-evaluation. At this point it is appropriate to ask some question to reach the issue of evaluation of the brand. What are the role models to identify the value of an intangible asset such as a brand? And should be used methods strictly in the costs incurred for the creation of intangible value and referring to historical data? By contrary, can it be more appropriate to make use of methods based both on costs and revenues, but considering the future? Rather, can be possible to examine models less focused on costs and revenues economic dimensions generated by the asset and intangible related to the identification and measurement of the system of relationships that the brand has developed and developing? The main goal of the present research is to find a right answer, by distinguish between traditional methods and *marketing based* ones.

Corporate brand evaluation models: an overlook on financial income streams methods.

Traditional models of brand evaluation as intangible asset can be divided into cost-based methods, methods based on financial income streams, or comparative empirical methods. The *marketing based* models are the method Interbrand and the *brand rating* one. Traditional methods of brand evaluation based on the costs are intended to measure all future benefits generated by the system of relations connected to the brand, by estimating the monetary resources or costs, which should be used to replace the brand subject to an assessment with one that has the same potential. What we want to determine is an expressive value of a current economic reality, which can ensure in the future the production of income. These revenues are the result of a detailed analysis of the methods of construction and presentation of the resource on the analysed resource market (Vicari, 1995).

The cost based methods are widely used in the practice of evaluation of the brand and are accepted by the

doctrine as they are based on certain factors, such as costs that the company has actually incurred to generate the intangible asset being valued and respect, therefore, the pre-requisite prudence of the evaluation.

More in-depth cost-based methods are:

- the historical cost method;
- the method of historical cost residual;
- the method of the cost of reproduction.

The historical cost method involves estimating all the costs that have been incurred for the generation of the intangible consists of the specific brand. It is a method used in particular for the intangibles in the making, that in the initial phase of the company, when the effectiveness of investment for the creation of the intangible asset is still indeterminable and with it the probability of success is difficult to estimate (Guatri, Bini, 2009).

The residual historical or updated cost method consists of establishing the costs that historically have been necessary in the formation of the intangibles, in their updated monetary and in their eventual removal to take into account the residual value of the specific intangible. In this case the valuation is the result of the sum marketing costs, supported by the company in the past, regardless of whether they are capitalized or expensed in the income statement. Following this reasoning, costs concerning adv investments, promotion, marketing communication, R&D, packaging, distribution channels represent, during the evaluation, the “value resources” (Renoldi, 1992) have become the intangible heritage centred on the brand (Bertoli, Busacca, 2009).

Just possibly the historical cost, restated at current prices, should be reduced by depreciation, taking into account the remaining useful life of the intangible specific and overall life.

On one hand, the market share erosion and, more generally, the marketing and the competitive pressure can lead to a de-valuation of the brand with the consequent need for a depreciation that takes into account this effect; on the other hand it is necessary to note that, often, the intense use of the brand, intended as a diffusion application in a number of product categories, generates an increase of its useful life that makes it not appropriate to take into account in the assessment of a process of amortization (Mazzei, 1999).

The reproduction average cost method is the estimate of the costs that the company should address, at the time of the evaluation, to recreate the specific intangible and system resource value associated with it. In other words, this method aims to estimate the investment needed to create the brand at the moment. In order to correctly identify what are the major investment is appropriate to identify the strengths of the brand, that is, those elements that by the outside are perceived as distinctive components of itself and thus constitute a source of clues competitive advantage for the company that owns the brand. Also, it is important to consider not only the investment in itself, but also the possible changes that the investment suffers as a result of the reactions of competitors (Vicari, 1995), who want to hinder the emergence of rival brand.

Next step is to underline investment timetables and its amount. The cost of reproduction that is identified must, therefore, take into account the state of the asset and this is done through a proportional coefficient between residual life and total life of the asset. Cost-based methods are the most used in the practise of evaluation in Italy concerning the valuation of intangible assets. Despite the frequent use, such methods bring with them some weaknesses such as the proper determination of costs relevant to the creation of the resource, the treatment of competitive dynamics and the temporal behaviour of the investments made for the regeneration of the resource. In addition, the cost method does not consider the flow of expected future benefits. The methods based on financial flows results measure the value of the brand determining the present value of future benefits that the resource can potentially generate over its remaining useful life¹.

The future benefits are measured by economic variables (income streams in different configurations) or monetary (future cash flows in different configurations).

The theoretical principle behind these methods is that the brand has a value because it can generate future income or financial flows. In other words, the competitive advantage resulting from the ownership of the brand, its exploitation and resources related to it, translates in positive cash flows for the company that owns it. If the brand is transferred to a third party, it should be able to ensure positive cash flows similar in the future.

¹ As indicated in IFRS 13 principle.

The methods of evaluation based on the financial flows of the result are: the premium price and the cost method of loss. According to the premium price the brand generates specific and measurable differential advantages. The consequence is that the method is based on measuring, for a time horizon of reference, of the differential advantages (Simon, Sullivan, 1993) that the brand brings to the company. In other words, the value of intangible asset in question emerges from the difference between the income that is attributed to a system of products and services with a strong brand and revenue achieved by the use of a system of products and services that identical is devoid of a brand or a brand identified with weaker than the previous one. The differential income is measured in terms of revenues and costs. The higher revenues obtained by applying the premium price obtainable from the exploitation of the brand qualified to be reduced costs, sometimes higher, connected to the high quality of the product, communication and distribution. The advantage gained by this simple operation must then be updated with reference to its probable duration, in years, by applying an appropriate discount rate. Luxury brand can apply to products and services higher prices losing a small percentage of the market share, even in the face of a higher price. The summation of positive and negative variations among $+\Delta$ final price, $-\Delta$ selling costs, $-\Delta$ production costs, $-\Delta$ promotion costs takes to net differential margin ($\Delta\mu$). The result of multiplication of the net differential margin, the total revenues for the sale of the product with the brand and the discount factor in relation to the useful life of the brand $a_{n/i}$ determines the value of the brand.

All these elements help to define the intrinsic value of the asset, critical to the identification of the net differential margin. The method of discounting the differential results is criticized as the most accepted doctrine believes that focuses exclusively on price.

The loss cost method consists (Guatri, Villani, 2010) in the estimation of the damage hypothetical estimate obtained in terms of a fall in the contribution margin and the occurrence of excess costs, the firm would have to bear if the availability intangibles were not. In this model, the calculation goes on for the entire time period necessary to restore the equilibrium and normal. The estimated losses should be discounted. The comparative or empirical methods are quite popular in the practice of evaluation of the brand as intangible asset and the value judgment based on references taken directly from the market taking into account, if any, in comparable transactions. The preconditions to ensure that these methods are properly applied are the ability to identify a representative set of temporally associated transactions at the time of evaluation, the ability to objectively identify the reference values of the transactions mentioned above, the ability to effectively compare and the homogeneity between the assets being evaluated and the comparables in the reference industry.

In the practice of evaluation is often not easy to identify which brands are actually comparable and especially the reference values of the transactions. More in-depth, empirical methods of evaluation or comparison are: the comparable transactions method, the royalty rate method, the method of differentials and the method of multiple multiples implied.

The comparable transactions method consists (Guatri, Bini, 2005) on the recognition to an intangible asset of a certain value corresponding to the prices have been applied in recent transactions for similar items.

This method requires that the substance of transactions compared is really homogeneous, in fact, otherwise the prices cannot be considered comparable and it is therefore necessary to have information about transactions in the time horizon of three to five years earlier. The royalty rate method determines the value of the brand based on the royalties that it could provide to a hypothetical holder of the same. This method has as a prerequisite the theoretical assumption that a person would be willing to pay an amount to obtain the right to use and then the economic exploitation of a specific intangible asset.

The royalty rates method is the best known of the comparative criteria and is based on market information, ie the annual royalty applied in the event of sale in use of comparable brands. The royalties are estimated in most cases with reference to the revenue generated by that mark, then a percentage of the turnover of the company and the royalty rate is based on a comparison with similar cases. Finally, the royalty streams, since they are distributed over a period of time, must be discounted and it is necessary, in order to choose the royalty rate (r), to have an adequate number of transactions, representative and transparent, for a reliable reference.

The choice of the royalty rate to be applied (Bini, 2005) must even consider the *brand power* (f_m) related to: ability to operate actions of brand extension, uniqueness, incremental profit margins, protection, additional sources of

competitive advantage guaranteed by brand, market entry barriers, legal protection, stage of the life cycle of products and services that resulted in the brand being evaluated. A variant of the royalty rate method is the royalty relief method that identifies potential royalties that the company owning the brand should correspond to a third party if he did not have that intangible asset for the right of use thereof. The critical issues outlined above is also confirmed in this method that is based on the identification of references anyway comparable. The implied multiples method is used to identify multiples to be applied to intangible asset subject to valuation. The multiples correspond to standardized prices and the economic rationality lies in the possibility, given to the owner, of economic exploitation of the intangible asset on a medium to long time horizon. The method of differential multiple sales can be used for the evaluation of the brand value when a company listed on a regulated market which has a recognized brand and can be compared with another company ever listed that does not hold a relevant brand. In this case the value of the brand is determined as the difference between the enterprise value of the two companies. (Damodaran, 1994).

Corporate brand evaluation models: an overlook on marketing based methods.

Financial evaluation models seen so far can estimate brand value through economical and financial flows. These models don't consider real value sources represent the base of these flows

Marketing based methods try to evaluate the sources of the value; they analyse factors determining brand power. These factors are the real source of financial and economical flows. How is it possible to estimate in practice the factors that determine the brand power and what are they? A brand has a certain value starting from: the market/the sector (number of competitors, competition intensity, potential new treats, other brands market power, market dynamicity), short term product results, long period product results and treats connected to the brand image (vulnerability), *brand extension*. The problem connected to this kind of evaluation model, based on marketing factors, is how to pass from brand power factors analysis to their synthetic evaluation. The logic path is composed by two phases: first of all the identification of brand power and value factors is fundamental, then a translation of theme in quantitative terms is needed. This second step allows to obtain *multipliers of a economics quantity*. By the way, it is possible to identify two used and known methods: the Interbrand² and the Brand Rating ones. The first one links brand power factors to the brand value itself (Jensen, Murphy, 1990). Evaluation process inputs are the results of some internal and external marketing and motivational researches, they also can be firm available information. Brand power source factors are translated in a numerical values scale and a weighting is assigned to every value.

To these values the evaluator can refer in order to chose the multiple of P/E³ to apply to the flow generated by the brand. Summarising, the Interbrand method is based on the identification of: brand return, brand power, *multiplicative coefficients* (is consider the P/E when a public company is evaluated, while, when the aim is to evaluate a private one, other marketing or empirical indicators are considered). The brand return is expressed through the weighted average of the last years revenues. The brand power is identified through several factors: leadership (concerning the brand market position), the brand stability (concerning the consumer loyalty. This is the base of the concept of *brand equity*), the market (concerning the total demand stability. This is important because brands developing in market without a stable demand are considering week, even if they have a strong market position). Other factors are: the degree of internationalisation, the brand trends, the marketing investments amount (it helps the brand to develop itself), the presence of international legal brand protections. Factors able to represent not just the brand power, but also its present and future configuration are rated on a scale from 0 to 100 and the relation between the brand power and coefficients is expressed through a *S curve* based on the experience, when on the x-axis is indicated the score representing the brand power (to 0 to 100), while on the y-axis is indicated the multiplicative used coefficient.

The multiple is equal, in the majority of the cases, to the maximum value of the market current P/E, so it can be different depending on sectors and on time. The multiple has to be applied to the performance measure, which Interbrand determines as the last three years profit difference between two comparable firms.

The Interbrand method is easy but, at the same time, is based on several and subjective assumptions

The Brand Rating method (Guatri, Bini, 2005) has the aim to evaluate through a marketing based approach

² Interbrand is a worldwide company with the principal aim to give a method of brand evaluation. See: www.interbrand.com.

³ P/E: Price/Earning

and it examines three components: brand iceberg (concerning the brand qualitative performance and its level of loyalty), the price differential (the difference among the analysed brand price and other unknown brands price) *brand future score* (it consider the long term brand potential).

Research design and major findings

The present research considers at a first glance the Interbrand methodology to evaluate world major and most known corporate brands. The aim is to underline if the used methodology could valuate the real corporate brand value, without considering balance sheet based ways to evaluate the brand.

First of all, as already explained, Interbrand recognises that “the influence of brands on current and prospective customers is a particularly significant driver of economic value” (Interbrand, 2013). For this reason, considering the communication importance a brand has toward various stakeholders, Interbrand’s brand valuation methodology is designed “to take all of these stakeholders and value-creation levers into account” (Interbrand, 2013). The evaluation considers management and employee (internal) and customer (external) factors; these marketing inputs are evaluated in a system in which also financial evaluations matter. The brand is evaluated considering the three following dimensions: financial, brand managerial, strategic. Concerning the financial dimension, considered factors are: investor relations, mergers and acquisitions, licensing/royalty rate setting, tax valuations/transfer pricing, balance sheet valuations and asset-backed financing. Brand managerial ones are about: brand performance management, brand portfolio management, brand roadmap development, resource allocation, brand tracking/dashboards, return on investment analysis, sponsorship evaluations, senior management KPIs. Eventually, strategic factors are about the positioning, the architecture, the launch and the extension of a certain brand, plus the analysis of the business case coming from the brand investment.

Secondly, in order to establish the most effective methodologies for managers and professionals, qualitative interviews have been carried on during the last 2 years. It has been verified a sample of more than 100 people among managers, consultants, firm owners and their considerations about best brand evaluation methods have been tested through qualitative and single interviews. Results and interviewed’ impressions are now reported in the present research. Eventually, a corporate brand sample analysis has been carried out (chosen among surveyed firms in the last 2 years and considering the major degree of awareness came out from managers and professionals sample interviews) in order to understand the most used evaluation appraisals. The following table reports analysis results without showing analysed corporate brands in order to defend observed firms.

TABLE 1 – CORPORATE BRAND EVALUATION METHODS

CORPORATE BRAND	BRAND VALUE (€/000)	COUNTRY	USED APPRAISAL	AWARENESS AMONG INTERVEIWED
Corporate brand α	280.000	Italy	Relief from royalties	40%
Corporate brand β	150.000	Italy	Relief from royalties	35%
Corporate brand γ	130.000	Italy	Comparable transaction	45%
Corporate brand δ	115.000	Italy	Comparable transaction	60%
Corporate brand ϵ	50.000	Italy	historical cost method	40%
Corporate brand ζ	21.000	Italy	historical cost method	45%
Corporate brand η	20.000	Italy	historical cost method	55%
Corporate brand θ	17.000	Italy	cost of reproduction	55%
Corporate brand ι	15.000	Italy	cost of reproduction	65%
Corporate brand κ	7.000	Italy	historical cost method	70%
Corporate brand λ	5.000	Italy	historical cost method	55%

Corporate brand μ	2.000	Italy	historical cost method	65%
Corporate brand ν	1.000	Italy	historical cost method	65%
Corporate brand ξ	300	Italy	cost of reproduction	65%
Corporate brand \omicron	150	Italy	cost of reproduction	70%
Corporate brand π	70	Italy	cost of reproduction	75%
Corporate brand ρ	20	Italy	historical cost method	45%
Corporate brand σ	10	Italy	historical cost method	55%
Corporate brand τ	9	Italy	historical cost method	45%

Source: authors' processing.

As we can observe in tab. 1 the most adopted evaluation model for corporate brand in the practise of Italian evaluation are still the traditional methods. This is also confirmed by the qualitative interviews that have been carried on during the last 2 years on a sample of more than 100 people among managers, consultants, firm owners. In this case they confirm the efficiency of Marketing Based Method but most of them declare that they are not ready to use them as main methods of evaluation, eventually they use the marketing based as control methods.

Conclusions

The corporate brand value determination may be effected by different models. The traditional are solidly anchored to the economic and financial results, while marketing based ones turn their attention to the system of cognitive relations of the company with the market, present and future relations. Brand value directly comes from its elements' capacity (perceptive and fiduciary) of making actual market relations stable and developing new relations for the future. Marketing based models appear as more adequate to better identify corporate brand value, even if sometimes they don't reach objective results: this could suggest to jointly adopt the two kind of models, when possible.

Eventually, financial models are nowadays the most used in the context of professional Italian brand appraisal practice, especially for Court appraisal, while at an international level the marketing based ones are the most considered in addition to traditional ones or as control models. This happens because the marketing based models consider the future: they pay attention and analyse relations a brand acquires with the firm system time after time.

Even if the major use of traditional methods (financial and economical ones), it is clear that these don't consider the real brand value sources, because they consider results are historical or future. Marketing based methods pay major attention to the identification of real sources of corporate brand value by taking in to account the long term run and the brand real scenarios.

Further steps in next researches can focus on ways to use traditional as well as marketing based methods in an integrated perspective in order to represent the real corporate brand value the best way is possible, considering that corporate brand is not just connected to goods or services.

References

- [1] Aaker, D. A. (1991). *Managing Brand Equity*, New York: The Free Press.
- [2] Aaker, D.A. (1991). *Managing Brand Equity. Capitalizing on the Value of a Brand Name*, New York: Free Press
- [3] Aaker, D.A. (1996). *Building Strong Brands*, New York: The Free Press.
- [4] Aaker, D.A. (2004a). *Brand Portfolio Strategy*, New York: The Free Press.
- [5] Aaker, D.A. (2004b). "Leveraging the Corporate Brand", *California Management Review*, 46, 3, 6-18.
- [6] Allèrès, D. (2005). *Luxe ... Stratègies Marketing*, Paris: Economica Edizione.
- [7] Belch, G.E., Belch, M.A. (1998, 2009). *Advertising and Promotion. An Integrated Marketing Communication Perspective*, New York: McGraw-Hill.
- [8] Biancone, P.P. (2006). *Le Attività Immateriali, L'avviamento E L'impairment Nei Bilanci*, Milano: Giuffrè Editore.
- [9] Bini, M. (2011). *La Valutazione Degli Intangibili*, Milano: Egea
- [10] Bridson, K., Evans, J. (2004). "The Secret to a Fashion Advantage is Brand Orientation", *International Journal of Retail and Distribution Management*, 32, 8, 403-411.
- [11] Busacca, B. (2000), *Il Valore Della Marca*, Egea, Milano.
- [12] Candelo, E. (2012), "Strategie di brand e comunicazione", in Casalegno, C. (2012), *Pubblicità: istruzioni per l'uso*, Milano: FrancoAngeli.
- [13] Casalegno, C., Li, Y. (2012). "Tendenze evolutive in atto: la comunicazione integrata", in Casalegno C. (a cura di), *Pubblicità: istruzioni per l'uso*, Milano: Franco Angeli.
- [14] Damodaran A. (1994), *Valuation*, Wiley, New York.
- [15] Duncan, T., Mulhern, F. (2004). *A White Paper on the Status, Scope and Future of IMC*, New York: McGraw-Hill.
- [16] Damodaran, A. (2010), *Valutazione Delle Aziende*, Milano: Apogeo.
- [17] Mercato, Milano.
- [18] Fernandez, P. (2002). *Valuation Method And Shareholders' Value Creation*, San Diego: Accademic Press.
- [19] Guatri, G., Villani, M. (2010). *Valutazione E Financial Reporting. Gli Intangibili Acquisiti Nelle Business Combinations: Identificazione E Valutazione*, Milano: Egea.
- [20] Guatri, L., Bini, M. (2003). *Gli Intangibili Specifici*, Milano: Università Bocconi Editore.
- [21] Guatri, L., Bini, M. (2009). *Nuovo Trattato Sulla Valutazione Delle Aziende*, Milano: Egea.
- [22] Kapferer, J. N. (2008). *The New Strategic Brand Management*, London: Kogan Page.
- [23] Kotler, P. (2007), *Marketing Management*, Milano: Pearson Education Italia.
- [24] Krugman, D.M., Reid, L.N., Dunn, S.W & Barban, A.M. (1994). *Advertising: Its Role in Modern Marketing*, 8th ed., Fort Worth: Dryden Press.
- [25] Macrae, C. (1991). *World-Class Brands*, Addison-Wesley: Wokingham.
- [26] Mazzei, R. (1999). *Il Valore Economico Della Brand Equity*, Milano, Egea.
- [27] Mosca F. (2010), *Marketing Dei Beni Di Lusso*, Milano: Pearson Italia.
- [28] Pellicelli, G., (2009). *Il marketing*, Torino: Utet.
- [29] Pellicelli, G. (2012), *Strategie d'impresa*, Milano: Egea.
- [30] Renoldi, A. (2010). *Hard E Soft Intangibles Di Mercato. Valutazione*, Milano: Egea.
- [31] Renoldi, A. (1992). *La Valutazione Dei Beni Immateriali: Metodi E Soluzioni*, Milano: Egea.
- [32] Romoli Venturi, R., Casalegno, C. & De Palma, P. (2014). *Comunicazione integrata e PR: Istruzioni per l'uso*, Milano: Franco Angeli.
- [33] Semprini, A. (2006). *Marche E Mondi Possibili. Un Approccio Semiotico Al Marketing Della Marca*, Milano: Franco Angeli.
- [34] Servalli, S. (2008). *Valori Immateriali Nell'economia Dell'impresa*, Roma: Rirea.
- [35] Schultz D.E. (1992), "Integrated Marketing Communications", *Journal of Promotion Management* 1.1, pp. 99-104
- [36] Schultz D.E. (1993), "Integrated Marketing Communications: Maybe Definition Is in the Point of View", *Marketing News*, January 18.

- [37] Simon, C. J., Sullivan, M. J. (1993). "The Measurement And Determinants Of Brand Equity: A Financial Approach", *Marketing Science*, Volume 12.
- [38] Ulrich, D., Smallwood, N. (2003). *Why the Bottom Line Isn't!*, Hoboken: Wiley.
- [39] Ulrich, D., Smallwood, N. (2008). "Aligning Firm, Leadership, and Personal Brand", *Leader to Leader*, 47, Winter, 24-32.
- [40] Vicari, S. (1995). *Brand Equity. Il Potenziale Generativo Della Fiducia*, Milano: Egea.

- Symbolically valuable for the customer?**
- **A longitudinal analysis of the interlinkages between brand and relationship development activities of a furniture manufacturer**

Anu Norrgrann, anu.norrgrann@uva.fi
University of Vaasa, Finland

**Symbolically valuable for the customer?
- A longitudinal analysis of the interlinkages between brand and relationship
development activities of a furniture manufacturer**

Abstract

This paper addresses the symbolic dimension of providing resources for value (co-)creation in business relationships. Prior research on resources in business relationships has predominantly examined their connectedness and embeddedness from more technical, economical and organizational perspectives, while discussion on the immaterial and symbolic aspects of resources has been sparse. To fill this gap in the existing network literature, we draw on frameworks developed within the service-dominant logic, where the role of brands and symbols as resources has recently begun to receive increasing attention as significant elements in the value co-creation process. This paper offers an increased understanding of the role of the symbolic dimensions of the firm's offering for the acquisition, development and retention of customer relationships. A longitudinal case study of a furniture manufacturer is used to empirically illustrate the role of symbolic resource development manifested in e.g. design and branding efforts, and its interlinkages with customer relationship development.

Keywords: symbolic value, brands, customer relationship management

1. Introduction

Within the marketing discipline, the acknowledgement of symbols and intangibles as a fundamental part of exchange goes back many decades. Sidney Levy emphasised already in his 1959 article that sellers of goods are, wilfully or not, engaged in selling symbols and Theodore Levitt (1981), in a similar vein, drew attention to the amount of intangibility of all products, whether being a good or service. He pinpointed the difficulty of assessing, experiencing or pre-testing not only services, but even physical products in advance. And when the buyer cannot fully do that, metaphorical surrogates for tangibility receive an increasing role. Levitt (1981:97) stated that “the less tangible the product, the more powerfully and persistently the judgment about it gets shaped by the packaging – how it's presented, who presents it and what is implied by metaphor, simile, symbol and other metaphors for reality”.

The vast literature on brands and meanings, which has followed along these footsteps, has mainly had a consumer marketing focus, while branding research in B2B settings has been sparse (Ballantyne & Aitken, 2007). The nature of business markets does indeed differ from consumer markets in many respects, for instance with regard to the number of individual buyers and the degree and depth of interaction between buyer and seller (see for instance Ford *et al.*, 1998). But even though the brand literature is mostly interested in the final customer and business marketing in the relationships between companies, it does not mean that the symbolic aspects of exchange would not be of relevance also in business-to-business interaction. The intermediate actors, such as retailers and resellers do also act as customers, who evaluate the offerings of their suppliers Business network scholars Håkansson & Waluszewski (2002); Håkansson *et al.* (2009) for instance point out that when actors are making decisions about physical resources (such as products) it is not only the resource in itself that is considered, but also the image of it. This means that the actors evaluate the business partners' resources also on an intangible level, based on perception, assumption, knowledge and representations.

The discussion on the role of these intangible and symbolic aspects and empirical studies that would focus on examining them, have been particularly limited in the business network research tradition. However, another theoretical stream, which shares a similar perspective on the interconnected nature of business exchange and focuses on the interaction (although usually labelled ‘integration’) of resources for joint value creation (or ‘co-creation), is the service-dominant (S-D) logic of marketing (see Vargo & Lusch 2006 for the principles of S-DL, and Ford 2010 for a comparison with the business network approach). Within this theoretical stream, there has recently been increasing interest towards brands, meanings and symbols as a significant part of the value co-creation process (see e.g. Peñaloza & Venkatesch, 2012; Flint, 2006; Ballantyne & Aitken 2007; Brodie, Glynn & Little 2006; Brodie 2009). Some of the S-D L based studies, such as Fyrberg & Jürriado (2008) and Akaka, Corsaro, Kelleher, Maglio, Seo, Lusch & Vargo (2014) even focus more explicitly on the network level, which brings the discussion even closer to the starting point of this research. Even

though Akaka *et al.* (2014) use the term *service ecosystem* (see Lusch & Vargo, 2014) rather than *network*, they still refer to market interactions on a network level, involving multiple firms, suppliers and customers, which in our opinion resonates well with our business networks viewpoint.

Akaka *et al.* (2014) call for more empirical studies on the role of symbols in value co-creation, as they state to “only have begun to scratch the surface for understanding the particular processes by which symbols guide the coordination, communication, integration and evaluation in service ecosystems”. This provides an indication of the significance of the topic of our study, also from the perspective of the service-dominant logic.

Even more importantly, our aim is to fill the gap in the business network literature’s discussion of resources concerning the role of symbolic resource aspects. To do this, we draw on the aforementioned S-DL – based conceptualizations in order to explore how brands and other signs are used as symbolic resources that firms provide for their (retail) customers and their value proposition to final users. We delimit our perspective by focusing particularly on the provision side of resources, i.e. from the selling firm’s perspective, how they attempt to relate their offering to the various customers (business relationship level), and indirectly, help them provide value proposals for consumers.

After presenting the theoretical standpoints of the paper in the next section, we continue with an empirical account of a case study from the furniture industry. The case, which comprises longitudinal data from a period of 15 years, illustrates how brand and product design provide symbolic resources for business relationships. In the analysis, we examine the dynamics and interlinkages between the development of symbolic resources and customer relationships and we conclude with a discussion on the role of symbolic resources in being valuable for the customer.

2. Theoretical background

The concept of resources

Our conceptual starting point is the notion of resources. We apply the business network research tradition’s (IMP) broad view of resources as *anything that has known use*, be it a product, facility, organizational unit or a relationship (Håkansson & Snehota 1995; Håkansson & Waluszewski, 2001). The IMP view on resources has particularly emphasized the interconnectedness and embeddedness of resources, i.e. that the value of a resource is dependent on with which other it is combined. Therefore, it is argued that resources are best understood from an interaction perspective, as a relative phenomenon, rather than regarding them as “given” assets of an organization. In the context of this paper, this approach to understanding resources draws the attention to the way in which the focal company attempts to make the resources it offers (the focal resource here being the product it sells) align with the resources of the customer, e.g. its assortment, that it in turn offers to the final customer. This reflects the dual nature of resources discussed by Håkansson & Snehota (1995), that a resource has both a provision side and a user side; the resource that the selling firm offers, is used as a resource by the buying firm. From the management point of view, the question is thus to attempt to provide resources that are as useful as possible for one’s business partners.

The service-dominant logic (see Vargo & Lusch, 2006) basically adheres to the same notion, although with more emphasis is on the outcome of resource use, i.e. value (see Ford, 2010) and how it is co-created. The S-D L literature also approaches resources from a more networked perspective, with the semantic distinction that they use the term ‘resource integration’ to correspond to IMP’s ‘resource interaction’. The service literature, being more concerned with value realization for the final user, than the IMP perspective, uses in our perspective the useful concept of *value proposition* (see Vargo & Lusch, 2006) for dealing with the interface between resource provision and resource utilization to describe the selling firm’s aims to provide valuable resources, without fully knowing if and how value actually will become realized for the customer. Service scholars (see e.g. Grönroos 2008) refer to the notion of value-in-use, i.e. that value is not delivered by the supplier, but something that takes place in the customer’s sphere. Grönroos (2008) argues that the role of the supplier is thus to be a *value facilitator* in the process of value creation. In this paper, we will not delve into the value discussion, but remain on the level of the resources, seeing them from the focal firm’s point of view as a value propositions towards its B2B customers and, eventually, the final users.

Symbolic resources

As we referred to in the introduction, the IMP discussion of resources has not dealt particularly with the symbolic aspects that are in the focus of this paper. Also within service literature, Brodie, Glynn & Little (2006) criticized the lack of attention to branding in the original S-D L article by Lusch & Vargo (2004). Subsequent work within S-D L has to some extent begun to address also these aspects, even though Akaka *et al.* (2014) still call for more empirical studies for a deeper understanding of the role of symbols.

Symbols can be seen as institutions that influence resource integration and exchange (Vargo & Lusch, 2011). Levy (1959:119) defines them as “ instances where experience is mediated, rather than direct; where an object, action, word or picture, or complex behavior is understood to mean not only itself but also some other ideas or feelings”. A way to study symbols and signs is through semiotics, which suggests that actors assign meanings to signs, which then become symbols, according to particular “rules” of interpretation that define their social world (Peirce 1932 in Akaka *et al.*, 2014). Symbolic interactionism explores how individuals attach meaning to interactions within a social context, which is largely facilitated by symbols. (Akaka *et al.*, 2014). Meaning is not seen as inherent in objects, but as emerging from social interaction, with humans as active interpreters and modifiers of meanings. (Flint, 2006) An interactive perspective to meanings is also proposed by Peñaloza & Venkatesh (2006), who suggest an expansion of the SD-L value discussion into including the exchange and use of meanings in order to better capture the nature of the exchange relations. Venkatesh *et al.* (2006) even propose the idea of a sign economy, consisting of more nuanced, interactive, enacted markets, jointly produced by consumers, marketers and other culturally constituted forces in the economic system; producing as they engage in exchanges according to mutually negotiated systems of language and meanings.

Extending the more interactive co-creation perspective to comprise meanings, however raises the similar question that Grönroos (2008) addresses with value, i.e. is it a question of co-creation, with multiple actors as active participants in the creation of symbols (Akaka *et al.* 2014) or something that happens in the customer’s sphere – images formed in actors’ minds - like value-in-use? To what extent are the meanings actually shared, or do symbolic meanings emerge that are different from the ones the supplying firm intended to propose?

On the network level, Akaka *et al.* (2014) propose that symbols guide actors in the enactment of practices that enable the co-creation of meanings. In this way, symbols help actors coordinate interaction, communicate information, integrate resources and evaluate value. They further argue that the interpretation of symbols is important for the overlapping and integration of institutional logics; symbols become reinterpreted in new social contexts and new symbolic meanings emerge, possibly varying across the micro, meso and macro levels of analysis. According to Akaka *et al.* (2014) the notion of shared understanding does thus not mean that symbols have the exactly same meaning for different actors, as they all have their own, unique socio-historical backgrounds, but that shared understandings occur when actors with varying viewpoints interact. In other words, even if the phenomenological value of symbols may vary from one actor to another, for interaction to occur, there must be overlap in the meanings of value for particular resources. Critical for this process is that the potential value (value proposition) is articulated and communicated, and symbols constitute a central tool for doing so.

Brands as resources for customer relationships

Brands have been a much researched marketing topic for several decades, having been defined in a variety of ways. For instance the AMA definition (2004) sees the brand as ‘ a name, term, design, symbol, or any other feature that identifies one seller’s good or service as distinct from those of other sellers’. Brands have been approached from multiple perspectives, such as a consumer angle, focusing on e.g. identity, image and similar issues; from an organizational perspective stressing e.g. positioning; a financial viewpoint, focusing on e.g. equity; or a relational perspective, which examines e.g. commitment and experience. Some of the definitions regard the brand as an entity, whereas broader perspectives consider brands also as processes. (Brodie 2009) According to such a process perspective, Brodie *et al.* (2006) see service brands as facilitating and mediating the marketing processes used to realize experiences that drive the co-creation of value. Brands provide sign systems that symbolize meaning in the marketing network and hence function as fundamental resources.

Brodie *et al.* (2006) base this definition on the foundation of the promises framework or value triangle, initially presented by Calonius (1986) and elaborated by Bitner (1995) and Grönroos (1996). The value framework focuses on the marketing processes of *making* promises (organization to customers), *enabling and facilitating* promises (internal

marketing within the network) and *keeping and supporting* promises (interaction between the organization's representatives and the customer). (Brodie et al., 2006)

In empirical studies where this perspective has been extended to include intermediate actors in the supply network (see e.g. Glynn & Brodie, 2004 on manufacturer-reseller relationships) brands were identified to act as facilitators of relations in channels, creating meaning and experience for the resellers. In Glynn & Brodie's (2004) study revealed three types of value from brands for the resellers; (1) non-financial benefits such as advertising benefits, (2) customer brand equity and (3) benefits for the reseller's customers. Brands thus create value not only in the end customer relationship, but also within other marketing relationships (Brodie et al. 2006).

Fyrberg & Jürjado (2009) extend the aforementioned value triangle through a closer investigation of the network aspects of it. They conceptualize the key actors in the co-creation process as (1) brand governor, (2) providers and (3) customers as the three corners of the brand relationship value triangle. The link between governor and providers deals with internal interaction in the network and an exchange of meanings and experiences; the interface between providers and customers in turn represents the co-creation of meanings, while the brand governor-customer axis involves the reciprocal development of value proposition suggested by customers. (Fyrberg & Jürjado, 2009).

3. Methodology

The empirical basis of the paper is a longitudinal case study of a furniture manufacturer. The case firm, Junet, was chosen because it is a company whose development the researcher has had an opportunity of following during a 15 year time period, from 1999 to date. This provides a unique possibility to identify the process nature of symbolic resource development, including the launch of new collections, designs and designer co-operations, and the parallel processes of how the firm has developed its network of customer relationships. Against the conceptual notion of resource value changing over time (Håkansson & Snehota, 1995), a longitudinal time perspective is of particular advantage for understanding the dynamics and longer term effects of investments made in resources and their implications on the network level.

The case study method enables the investigation of a focal phenomenon within its real-life context, where the boundaries between phenomenon and context are not clearly evident (Yin, 1989). As Johnston, Leech & Liu (1999) state, the case study method does not attempt to isolate the phenomenon from its context, but, on the contrary, sees the phenomenon as being of interest precisely because of its context. In this paper, we adopt a focal firm perspective (see Halinen & Törnroos, 2005) where the main units of analysis are the symbolic dimensions of the resources that the case firm is providing and their manifestations in brands, designs and semiotics in communication. These resources are mirrored against the context of the events, changes and developments that the focal company faces, particularly with regard to the processes of customer relationship development. It also takes into account developments in the network context of the focal company, which affect the aforementioned processes. Such network effects are considered both on the meso level, i.e. relating to the most central partners on the supply side, as well as more macro level developments, which affect the product-market decisions of the focal firm.

One of the strengths of case study research is the ability to draw on several different types of data and triangulate them to provide a holistic picture of the studied phenomenon (Yin, 1994; Johnston *et al*, 1999). In this research, the construction of the case study report relies above all on qualitative interview data. Seven personal, thematic interviews and one, shorter telephone interview have been carried out with the managing director of the case firm, a reseller and an advertising agency representative. Most interviews were fully transcribed, or, in other instances, interview notes were taken and used for case description write-up. The interviews took place in 1999, 2000, 2010, 2012, 2013 and 2013. The earlier stage findings related to product and network design have been discussed in an article by Baraldi, Bocconcelli & Söderlund (2001).

In addition to interview data, the researcher was able to utilize observation as a technique for triangulation, since several of the interviews took place in the premises of the focal firm. This, in addition to observations from retail settings, allowed for instance a concrete examination of the firm's products and ways to display them, as the office and production facilities at the beginning of the study period also functioned as a showroom for the company. Furthermore, various printed and electronic documents, such as brochures, catalogues, price lists, company web pages and social media profiles

have also been used as sources of case evidence. A content analysis of this material contributed in particular to the interpretations of the symbolic and semiotic aspects of the value proposition of the firm.

In the longitudinal analysis, the snapshots of reality gained at the different interview occasions as well as informant's reflections on developments over time are analytically used to make interpretations of continuity and gain a holistic understanding, rather than making comparisons of the different cross-sectional points in time, in a linear and objective manner (see Hassett & Paavilainen-Mäntymäki, *eds.*, 2013).

4. Symbolic resources and customer relationships in practice: case Junet

Case firm description

The focal firm of the case study is Junet, which is a joint venture founded by five SMEs in 1993. The five original partners were manufactures of complementary pieces of furniture; one specialized in cabinets, another in upholstered furniture etc., who decided to join forces with the aim of creating and selling a new, joint furniture collection, initially mainly aimed at export customers. Thanks to the businesses' complementary nature, the founding partners have simultaneously also acted as the main suppliers for Junet, hence term 'net' in the corporate brand name. The prefix in turn has its origin in the location of the firms in the village of Jurva, Finland, which has historically had a high concentration of carpenters and furniture makers, and has on the national level been associated with a tradition of quality and skills in carpentry; a heritage which Junet has been drawing on both in terms of concrete competence and as a symbolic element in its communication.

The Junet venture represents only one customer relationship for the partner firms, who alongside this engagement also have maintained their previous activities, selling their individual products to other customers under their own brands. For the different partner firms, the Junet relationship has been of varying importance. For some of the member firms that are smaller in size, the Junet relationship has been one of the more significant in their portfolio, while for others, it has played a more minor role. Also, the significance of the Junet involvement has varied even for the same partner firms over time, depending on developments in their other customer relationships and also on the products that have at different points in time been more in focus in the Junet collection.

The focal firm and its resources are thus significantly characterized by the joint venture member firms / suppliers, but an additional, externally sourced contributor has been the freelance designer(s), that the firm has used. In this manufacturing sector, companies are differentiated partly based on the design(er) intensity of their products and Junet opted from the very beginning for an approach that emphasizes to role of product aesthetics and a distinct style, illustrated by e.g. the following brochure excerpts: *"The design and form is essentially Finnish country style, with modern elements added where appropriate ... All Junet furniture has consistently been based on these elements and that is why we can now call it the Junet style"* (Junet brochure, 1999). It is also characteristic of the designer focus, that the names and introductions of the designers have had a prominent role in marketing communication, both in printed materials as well as on the web.

Analysis of symbolic resources and customer relationships

A summary of the longitudinal case analysis is presented as a table in Appedix 1. When examining the case in a longitudinal time perspective based on the developments of both the symbolic resources and the customer relationships, four distinct phases were distinguished. The phases illustrate shifts in brand-related and market decisions and new directions regarding product design and form, resulting from strategic choices, as well as change forces in the network outside the firm. The phases are mostly chronologically sequential, but some of the phases overlap in time.

The first phase, timed in the 1990's is here termed the **Landhausstil phase**. This depicts the initial formation of the Junet venture and the creation of the first, joint collection between the partner firms. The aim was to overcome the severe domestic recession by joining forces and exporting to the European market, which was at the time beginning to open up to free trade. The collection of products, that was developed for this purpose were *"based on traditional Finnish carpentry skills and craftsmanship, combined with the technology used in modern furniture production"* (1990's Junet brochure). Furthermore, the communication stressed that *"the colour scheme is based on historic styles... adapted to match present day's needs"* and that *"all pieces have been designed to be fully compatible, giving*

the customer a wide choice of furniture and upholstery". The products were/are also made to order, enabling customer specific choices of colours and fabrics. When the initial recognition was being built among customers, quality of the raw materials as "*ecologically sound... pine and birch from renewable Finnish forests*" as well as of the craftsmanship were emphasized, alongside the wax treatment of the surface, which was a production related novelty for the firm, but also a feature that distinguished the early collection aesthetically and haptically. As the main customers during this phase were in Germany, the term "landhausstil" was used as a characterization. At the most, Junet had up to a hundred resellers, the most significant being a German furniture chain for whom the nature of the supplier as a small, Nordic company, providing a full spectrum of compatible quality, massive wood products made of sustainable materials aligned well with the retailer's ecological profile.

Towards the end of the 90's sales on the German market dropped radically due to the general economic situation as well as the entry of Eastern European competitors. When similar looking, several times cheaper alternatives were available, the Junet brand appeared not to hold sufficient content for the customers any longer. The next phase was therefore marked by a gradual withdrawal from exports and entry into the domestic market, here termed as the **Nezz phase**. The Junet brand was not an unknown phenomenon domestically in the 90's, even though its customers were mostly abroad. The export joint venture had received a fair share of attention in the industry due to its novel way of organizing itself, and the existing domestic retailers of the partner firms were curious of the Junet collection. The brand building efforts towards export customers as well as the existing parallel customer relationships of the firms thus paved the way for Junet's domestic brand building and symbolic valuableness. For the domestic market, Junet launched both its existing collection of traditional furniture, but the designer also developed an additional collection, of a more contemporary style, featuring straight lines, new materials and metal details. Due to the diverging appearance from the prior products, the modern collection received its own sub-brand name, 'Nezz'. The name itself also differed from the previous collection names such as Viena or Wiljami, which associated more to tradition and folklore. This phase was characterized by increased brand awareness building also towards consumers, through advertising and presence at furniture fairs.

Approximately a decade later, the brand was reassessed and refined, leading into the **Feels like Sunday phase**; a slogan coined by Junet's new advertising agency. Somewhat prior to this, also the customer portfolio underwent reorganization. Distribution had thus far been very scattered and the number of retailers high, with, according to the managing director, too little time to devote to all customers to e.g. ensure proper product display. Junet chose to enter an exclusive retail distribution agreement with the chain Vepsäläinen, who is profiled as a brand retailer in furniture, with for instance Artek, Fritz Hansen, Vitra and similar design brands in its assortment. Thereby, Junet was able to focus its relationship management activities more. The Vepsäläinen context however demanded increasing brand building investments and also efforts to clarify Junet's position among the brands in the retailer's assortment. Consequently, the company logo was renewed, the Nezz products renamed and new products by new designers introduced. The new products reflected the brand strategy of warmth and cosiness as a distinction to the more clinically modern other design brands. The new slogan "feels like Sunday" aimed at providing a promise of a stress-free, enjoyable Sunday morning – feeling and reflecting the relaxed and genuine, yet qualitative nature of the brand. The form language of the new products was also softer and rounder, colours still mostly light and "Nordic" and the products were given names in Finnish, with meanings such as "joy" (Ilo) and "for you" (Sinulle).

The branding efforts and focused distribution were initially successful and at best, Junet was chosen supplier of the year at Vepsäläinen. However, the general downturn in the economy in the 2010's started to affect the furniture sector severely and caused Junet to reconsider both its offerings as well as relationships. A cheaper collection of products was launched by request of the retailer, but even this did not compensate the loss of sales. The economic pressures grew increasingly when one of the Junet partners (at the same time its biggest supplier) filed for bankruptcy in 2013. In 2014, the exclusive distribution agreement with Vepsäläinen was terminated and a second chain, Kruunukaluste, chosen as an additional retailer in the hope of generating more sales.

The fourth phase, **the project track** is a public space furnishing path that runs through the entire history of the firm, parallel with its retail relationships. Its relative role has varied over time, but it has gained particular strategic importance over the last years. In the 90's, Junet utilized the design of its new collection and its flexible and versatile production possibilities in its value propositions for project customers in e.g. hotel and holiday housing construction projects in Germany. In such projects, the country style appearance of the products and durability of the physical

products were valuable characteristics for the customers, coupled with the capacity to offer adapted solutions. Also on the domestic market, Junet was involved in similar types of projects. One of the advantages was that even though the projects varied, the customer interface many times remained the same. Junet was thus in a closer and more continuous business relationships with the purchasing side architects, compared to the more “market” mechanism nature of its numerous retailer relationships of the time. In the 2000’s Junet began tapping into a new sector, that has become increasingly important, namely elderly care furnishing. For such project customers, e.g. private firms running elderly homes, the symbolic resources that Junet proposes, make use of for instance the durable and sturdy quality, natural materials, domestic origin and warm and cosy imagery along the lines of the latest brand renewal. Junet believes that the consumer branding efforts have been useful for building recognition also among the senior housing decision makers. Therefore Junet chose to introduce “*Junet seniori*” as a sub-brand for this project market and the web shop for these products. Even if brand recognition spins off positively from consumer products to the senior market, it remains yet to be seen if there are possible, possibly negative, effects the other way around.

On the whole, the time span that has been analyzed, shows some developments or trajectories on a more general analytical level. The first is the shift from more arm’s length customer relationships, first abroad but then also to some extent on the domestic level, towards increasing concentration on fewer, significant customers, where the value proposition of the firm and the profile of the customer are more aligned. For instance the choice to focus on Vepsäläinen as an exclusive distributor, or the rationale in entering specific projects, illustrate this tendency.

Another more general observation is the role of the brand and its gradual development from being merely a trademark or a name for a new venture into an actual brand with a symbolic content, one that customers and consumers recognize and associate with meanings. This process has taken time and required investments in visibility, for example by advertising regularly in the leading interior decoration magazines, using advertorials, social media, being present at fairs and introducing new products at a steady pace to stay “on the agenda”.

When looking at the study period on an aggregated level, what can be said about the role of the symbolic resources in the firm’s efforts to be valuable. i.e. provide a lucrative value proposition for its customers? Our interpretation is that on one hand, the process of brand development and the underlying strategic orientation of attempting to make high quality, well designed products in a flexible and adaptable manner has been guiding the firm’s activities all along, although taking its expression in somewhat differing products and communicative choices at different points in time. This brand building can be seen as an incremental development process. Particularly concerning project customers and retail buyers, the symbolic resources appear to relate to the capabilities of Junet as a supplier and a brand holder, rather than to its individual products. The craftsmanship tradition is a similar example of an undercurrent that branding has tapped into in a variety of ways at different times.

On the other hand, the study period with its economic ups and downs and the consequent shifts in product-market strategies shows that the Junet brand has not only followed a linear path of becoming gradually stronger and imprinted with meaning, but been required to repeatedly reassess and refine its way and means of relating to its customers. Here, the role of material vs. symbolic dimensions of the offering appears to receive a special role. In situations of lesser competitive pressures, it appears as if the tangible features can already be sufficient for the value proposition (e.g. in the early, more successful phases on exporting and selling to domestic retailers), while when other, strong resources compete of the customer’s attention (in e.g. the Vepsäläinen environment or the later years on the German market), the role of the immaterial/symbolic characteristics become emphasized and their management requires particular effort. This would support the notion proposed by Gummerus & Hellén (2012) that a product’s tangibility/intangibility is a rather ambiguous concept, and should be assessed in terms of (consumer) perceptions rather than as something inherent in offerings.

5. Concluding discussion

In this paper, we set out to increase the understanding of the resource dimension in business interaction by examining how brands serve as symbolic resources for business relationships. We drew on discussions based in the S-D logic of marketing on symbols and brands and applied them against a business relationship management context.

Based on our findings, we agree with Brodie (2009) and Brodie et al. (2006) in regarding brands not only as entities, but as processes, that facilitate and mediate in the marketing processes used to realize experiences driving value co-creation. Brands provide sign systems that symbolize meaning for different actors in the marketing network and hence function as fundamental resources. Our empirical account shows, that in order for a firm to survive on the market, it must continuously be able to provide resources that are perceived valuable by its customers. On the brand management level, this draws attention to the dynamics of the brand and the need to evaluate it against the firm's network of marketing relationships and the changes occurring in them. Our findings thus indicate that the role of the symbolic content of brands is a dynamic concept, where the valuableness of the resource varies depending on the resource constellation around it, as network theory (see Håkansson & Snehota, 1995) suggests. That is, when the focal brand is in the customer context challenged by other brands offering competing symbolic, utilitarian or economic benefits (e.g. acknowledged design or a lower price), this puts pressure on resource management for a better alignment with customer resources.

In addition to addressing the identified research gap concerning symbolic resources in network literature, we believe that our findings offer valuable empirical insight to the understanding of the interactive nature of brands and symbols also from a S-D L point of view. The paper offers a methodological contribution through the use of longitudinal and semiotic analysis, which we consider as useful tools for an increased understanding of the dynamics of symbolism, when mirrored against changing customer relationship over a longer time perspective.

Particularly from a network theoretical point of view, a limitation of the study is the focus on the brand governor and the provision side of resources. Extending the perspective to comprising selected customers' viewpoints, would be recommended in further research on the topic.

References

Please contact the author for the list of references.

Appendix 1: Longitudinal analysis of Junet

MAIN UNITS OF ANALYSIS				
Products	New collection, massive, waxed wood 'Landhausstil' Customised colors, sizes	contemporary designs heat-treated materials	new, contemporary products by new designers introduced at a faster pace	
Brand	Junet (corporate and product)	Junet / Nezz (the modern collection)	Junet, new logo and slogan "Feels like Sunday" renaming Nezz products	Junet Junet seniori
Customers	International retail International projects	Numerous domestic retailers Hotel & holiday housing projects	Exclusive retail (Vepsäläinen) Subcontracting Elderly care housing projects	Vepsäläinen + Kruunukaluste
CONTEXTUAL FACTORS				
Managerial focus	Organizing the net Internationalizing	establishing position on the domestic market	key customers and projects brand management	
Developments in the network context (macro/meso)	Export promotion EU-membership Ikea's market entry RECESSION	Competitive pressure, plagiarism Increased imports	new designers new advertising agency	member bankruptcy RECESSION
ANALYTICAL TRAJECTORIES				
	From trademark to brand (and sub-brands) From markets to relationships From international to domestics From home furniture market to increasing focus on projects			

Marketing Communication and the Semantics of Information

André Stuth, astuth@outlook.com

Marketing Communication and the Semantics of Information

A comparison of marketing communication

We live in a society in which there is an increasing focus on healthy lifestyle and healthy diet. These aspects are joined by such important factors as the sustainable and green production of all agricultural and industrial commodities, biologically irreproachable cultivation of crop plants with as few chemicals as possible and species-appropriate husbandry of farm animals. There is an equal demand for fair-trade of all consumer goods as a means of apportioning producers in poorer countries appropriate participation in the fruits of their labour. All of these and other aspects have acquired an existential meaning for millions of consumers in the developed, industrial nations at least.

But what is the best way of using marketing communication to disseminate these highly complex semantic components of product information to consumers?

Aspects concerning the meaning of information are now of far greater significance than they have been in the past. These days it would be woefully inadequate to simply slap a tasty burger onto an advertising billboard or on television in the hope that it would generate sales. Now we must also declare where the meat comes from and naturally just as much whether and why we can afford to consume such a high-calorie meal.

It is therefore true that the aspect of meaning and hence the at times highly complex semantics of information play a far greater role in how an advertising claim is communicated than ever before. So pure stimulus-response (S-R) or stimulus-organism-response models (S-O-R) are gradually slipping into obscurity. Their only remaining function is to generate attention for an advertising claim.

Furthermore, the formation of public opinion and in it the preferential appraisal of certain products in modern society takes place in a plethora of discussions on the Internet and in social media, thus enacting a disassociation from the manufacturers and their marketing instruments and shifting the process into larger groups and a more indirect and independent realm. Arriving there the discussion on content and meaning, in other words the semantics and pragmatics of all information available on a product, acquires a vastly greater importance than a pretty picture or an enticing slogan could ever possess. And the rate at which these instruments are developing in the formation of public opinion gathers pace from one day to the next. And all of this directly impacts not only on the meaning of the instruments required in marketing, but also and in particular on the nature and content of each communication within marketing.

Nevertheless, marketing communication did not become one of the most important topics within marketing just yesterday. Reviewing the literature available on the subject today, one quickly encounters far older, common foundations of communication as elements of a longstanding and established paradigm within this specialist field, one that long ago gained entry to the academic realm. The Greek word paradigm¹ consists of the individual terms '*next to*' and '*show*' in the sense of '*to render comprehensible*', also '*example*', '*paragon*', '*distinction*' or '*prejudice*' and in common parlance equally '*world view*' or '*ideology*'.

Georg Christoph Lichtenberg introduced the term of paradigm to academic discourse to denote different schools of scientific thinking. Since the late 18th century the word paradigm has been used to describe a definite scientific perception or philosophy within a scholarly community or a worldview inherent to a defined group of people. In more recent times Thomas S. Kuhn² bestowed considerable significance on the term paradigm, not least due to the at times most controversial discussions that centred on his two books on the topic. Jens Asendorpf³ provided a new definition of paradigm in 2009, stating: "A scientific paradigm is a more or less coherent bundle of theoretical principles, questions and methods that many academic share and that outlives longer historical periods within the development of an academic discipline." In this day and age, whether intentional or otherwise, the term paradigm therefore possesses a truly pivotal significance in any scientific discipline.

¹ cf: Margaret Masterman (1987) The Nature of a Paradigm, In: Imre Lakatos / Alan Musgrave: Criticism and the Growth of Knowledge, p. 59-90

² cf. Kuhn, Thomas S. (1970) Die Struktur wissenschaftlicher Revolutionen und (1977) die Entstehung des Neuen, p. 389 ff

³ cf. Jens B. Asendorpf (2009) Persönlichkeitspsychologie, p. 13

Current literature on marketing communication yields a whole series of common principles and components of a shared paradigm, running like a common thread through all the insight derived and collated in this field and referring above all and in particular to the manifold commonalities in the pictorial metaphors deployed in the general principles of each communicative event and the illustrative communication models applied.

The communication model that Claude E. Shannon⁴ developed in 1948 remains to this day the fundamental basis and prevalent paradigm in this respect, losing none of its distinctiveness as a very simple, figurative, and exemplary metaphor for communication. This may also explain why there is such a pronounced tendency to use it so frequently and willingly, to add to it in varying degrees and to employ it in broader contexts. After all we are constantly faced with two or more communication partners and, in marketing especially, an almost unlimited variety in the means available to transmit data in messages between these parties. But the story does not end here.

As he noted himself, Shannon created this purely sender-receiver model of communication for the sole purpose of considering the means of engineering data transmission from the perspective of probability theory and statistics and hence from the exclusive viewpoint of mathematics. Its only purpose is the purely naturalist consideration of syntactic data transmission from the sender to the receiver of data⁵. Shannon himself remarks that his definition of information along the simple lines of engineering data transmission must on no account be confused with meaning, that is the semantics of information beyond the scope of data engineering.

It is unfortunate that this perspective inherently inadequate for a complete and holistic understanding of information, remains in use in such a variety of different contexts to the present day.

From this model Shannon concludes that data transmission requires a set of redundancies in order to permit a syntactically complete message to reach the recipient, even if there are disturbances in the transmission channel. From his point of view the recipient has no means of achieving an integral understanding of the meaning inherent to the message contents. Therefore, Shannon's "A Mathematical Theory of Communication" is in truth a mathematical theory on how to engineer a message's data transmission. There is no way whatsoever of concluding the semantic informational content merely on the basis of considering the transmission of a limited number of characters from the perspective of syntax, mathematics or probability theory. After all, connecting syntax with semantics requires more than just statistical functions.

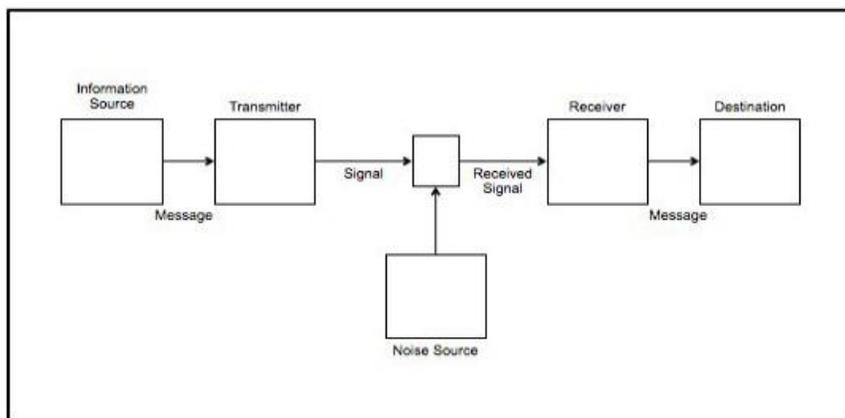


FIGURE 1: COMMUNICATION MODEL BY CLAUDE E. SHANNON⁶ DATED 1948

Unlike the currency value of data, a consideration of data transmission along the lines of statistics or probability theory is insufficient to ascertain the currency value of information. Indeed, only a complete interpretation

⁴ cf. Shannon, Claude E. (1948) A Mathematical Theory of Communication, In: Bell System Technical Journal 27, p. 379 ff. and 623 ff.

⁵ cf. Jahnich, Peter (2006) Was ist Information?, p. 71 ff.

⁶ cf. Shannon, Claude E. (1948) A Mathematical Theory of Communication, In: Bell System Technical Journal 27, p. 379 ff

of the message's actual meaning for the recipient can cater to this aspect. For instance, various sets of data with identical structures may produce entirely distinct semantic appraisals, depending on their transmission in different situations or to different recipients. It is equally possible to achieve uniform semantics with varying syntax. Hence, it is fair to say that in the eyes of the recipient, any operation based solely on the currency value of syntactic data will not yield an adequate yardstick, let alone produce a standalone basis, for assessing the fact-based informational content of a message.

The recipient of a message, conversely, is at all times and exclusively intent on grasping the manifold and extraordinarily complex meaning of the information. After all, this is the actual and germinal purpose of any form of data transmission and any absorption of information. We are by no means satisfied with marvelling at, or seeking short-lived entertainment in, the beauty of syntactical formulation.

It is also true that communication cannot operate as a one-way street. This means that unlike the engineering of data transmission, it at all times requires a mutuality in response and understanding between two or more parties to the communication in order to be successful. Queries can be used to elaborate in greater detail on the integral meaning of a message. Drawing on the semiotic classification that persisted historically until Charles W. Morris⁷, Holger Lyre⁸ described in his book

'Informationstheorie' a sensible approach to acquiring as complete a notion of information as possible by introducing the idea of three-dimensional semiotics, consisting of:

- **Syntax:**

The incidence of individual units of information, their structure and arrangement and the relationships found between the informational units themselves

- **Semantics**

The meaning of the informational units as grasped by the recipient of information and the relationships between the meanings themselves

- **Pragmatics**

The impact of the informational units and their mutual relationships

Each of these three dimensions serves to describe a characteristic aspect of information. But only when all three aspects are brought together do they represent the complete and overall characteristics inherent to a notion of information. The lack of any one of these aspects engenders a substantially abridged perspective on the overall characteristics of this notion of information. It can therefore be concluded that a purely naturalist category of data transmission within a certain syntax is now entirely inadequate in the acquisition of an integral notion of information. Information can only ever be what in our eyes possesses significance and permits interpretation of meaning.

This is why any complete understanding of information always requires an interpreter to navigate the complex variety of semantic interpretations. It would be fair to conclude from this that successful

communication theory must on no account reduce the communication partners to their roles as senders and recipients of data via a predefined medium. The process of semantic and pragmatic interpretation, hence the acutely important role of the protagonists within communication as the interpreters of information and quite naturally also the mutuality of communication (e.g. feedback via the Internet or social media), must now come to the forefront of perception to a far greater extent than historically has been the case.

Attempts so far to circumvent this palpable deficiency centred mainly on prising open and suitably repackaging Shannon's model of communication to incorporate the two aspects of semantics and pragmatics and the mutuality of communication, also. In this respect I would like to introduce two very good, recent examples, which represent a mere fraction of the scientific debate in recent decades on the topic of marketing communication.

⁷ cf. Morris, Charles W. (1938) Foundations of the Theory of Signs (1988)

⁸ cf. Lyre, Holger (2002) Informationstheorie, p. 16 ff.

A very good enhancement of Shannon's model of communication is found in the basics of communication contained in the book 'Marketingkommunikation' by Harald Vergossen⁹ from 2004. Defining communication, he quotes Koschnik from 2003: "Communication is most commonly understood to be the exchange of information (messages). In this a sender, the so-called communicator, uses a definite medium to transmit a statement to the receiver, the so-called communicant, or recipient. In his or her reaction the recipient becomes the communicator and vice versa." In his own communication model and following Weis from 2004, Vergossen joins those using a distinctly enhanced presentation of Shannon's communication model, most certainly as a consequence of his own definition of communication:

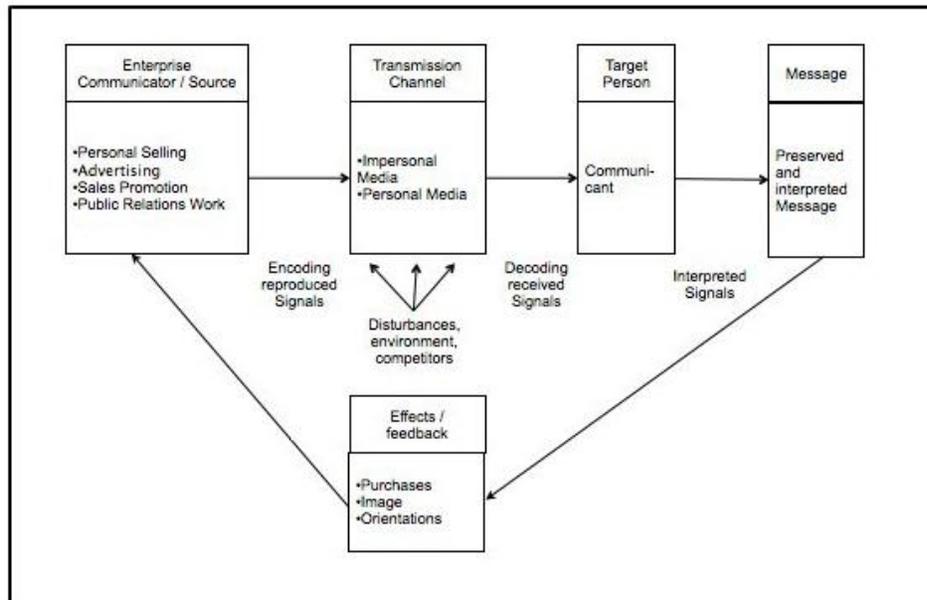


FIGURE 2: COMMUNICATION MODEL BY HARALD VERGOSSEN¹⁰ FROM 2004

But disturbances in the transmission channel by no means constitute the main problem in any form of communication. Instead it is actually and always the interpreter's semantic understanding of actual meaning inherent to the information itself.

This requires not only complete syntax in the transmission of information; it also and especially necessitates a correct manner in addressing the semantically arranged knowledge that the recipient of an advertising claim already holds. Quite naturally, it is also conceivable to add to the recipient's semantic representation of knowledge some entirely new elements of knowledge that he or she may find interesting. The crux of the matter is therefore to verify, falsify or enhance semantic structures in place within the recipient of a message in order to accommodate a new, incoming message. Of course, the only information that can be of interest is such as may sensibly complement or otherwise impressively confirm the knowledge and basic attitudes held by the potential consumers, for instance as concerns a healthy lifestyle and healthy diet; organic farming or husbandry without genetic manipulation; sustained, green production, and on fair trade.

It follows therefore that the focus is not placed merely on the transmission of data and certainly not on the stimulus that in the style of Pavlov's dogs would provoke a purely behaviouristic response in the potential consumer. Instead, the spotlight is trained on transmitting extensive and in places complex semantic information that must tie

⁹ cf. Vergossen, Harald (2004) Marketingkommunikation, p. 19 ff.

¹⁰ cf. Vergossen, Harald (2004) Marketingkommunikation, p. 19 ff.

in with or even meaningfully enhance the consumer's existing representations of semantic knowledge. This means that to a previously unseen extent, modern marketing and instruments of marketing are increasingly morphing into conveyors of comprehensive meaning with pertinence for the characteristics and origins of a consumer product, its manufacture and also its means of dissemination.

Another impressive example of how Shannon's model of communication is enhanced is found in the much read book 'Marketingkommunikation' by Werner Pepels¹¹ in its 2nd edition from 2011. Here we already find a means of applying the most important elements of informational three- dimensionality, although it does, at the start at least, seriously neglect the mutuality of communication.

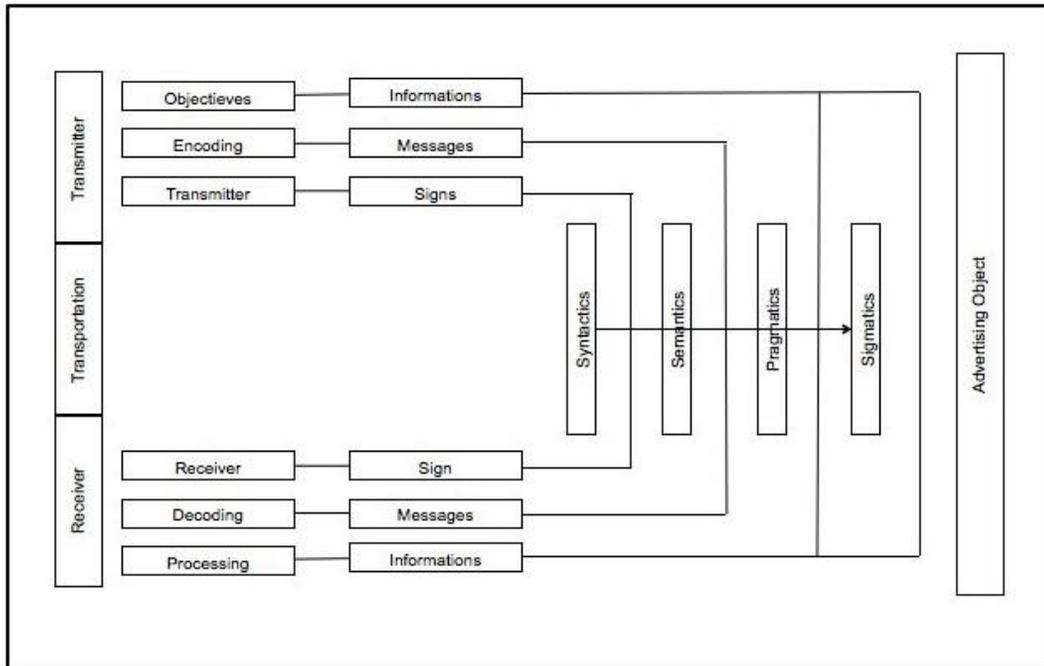


FIGURE 3: COMMUNICATION MODEL BY WERNER PEPELS¹² FROM 2011

Yet nevertheless the old perception based purely on sender and recipient remains the basis of all enhancements. The actual meaning, with the process of interpretation, regrettably remains in the shadows. To the present day, this entire development has been characterised by the markedly naturalist perception that the entirety of a message and its extensive semantic and pragmatic content is already contained in the syntax or in the images of the information as it is transmitted. The role of the party absorbing the information, the interpreter, who deploys the broad scope of his or her own life's knowledge and is aware of current external and internal situations, is unfortunately and seriously neglected.

But information always requires detailed interpretation of its meaning. This is why information will at all times need an interpreter to navigate the requisite avenues of interpretation in their semantic and pragmatic complexity.

In our age, the archaic perception that all three informational dimensions can be transmitted within one message in whatsoever form of syntactic convolution is deemed imperative, disappoints in its adequacy whichever way it is turned. We only recognise even the most basic of signs, symbols or icons if they are associated and

¹¹ cf. Pepels, Werner (2011) Marketingkommunikation, 2nd revised edition, p. 22 ff.

¹² cf. Pepels, Werner (2011) Marketingkommunikation, 2nd revised edition, p. 22 ff

stored with attendant significance in our cognitive representation of knowledge. We require explanation to understand new symbols in their complex interrelationship with meaning. Only then can a symbol or a term in the syntax of an advertising claim trigger the desired association among potential consumers. Hence, the actual meaning is by no means inherent to the symbols communicated to us, but at all times rooted in our knowledge of them and in the semantic representation of this knowledge in our minds. So any attempt by syntax alone to derive in a quasi- algorithmic procedure natural and linguistic communication in the complete formality of its multifarious semantics is doomed from its very inception to failure. Far more than merely what are at times completely different semantic levels of our knowledge on language, on reality and on the intellectual objects we create, prevent any such endeavour.

"You cannot milk semantics out from syntactical processes alone." John R. Searle

Instead, we are called on today to develop an entirely new perception that by transmitting syntax, we only ever address a set of indices in the semantic representation of knowledge existing within our brains. Not until we have recognised a symbol are we able to apply these indices in several stages to reach the semantic building blocks of knowledge secreted in our minds. And these are not found in the syntax of a message, but directly in what our brains hold as semantic representation of knowledge. It is quite rare, and most commonly in a context with entirely new materials, that we receive an extensive explanation of what new information means. It is in these cases that the syntax also delivers the semantics. Yet even then we require a prior foundation of extensive basic knowledge.

Therefore, the syntax within our language is constantly held in a direct relationship with, and as part of shape-shifting interdependencies in, the way our minds represent the knowledge we possess. This semantic representation of knowledge accumulates constantly over the course of our lives and contains all insight and ideologies that we have ever embraced. In this, Klix, Roth and van der Meer¹³ make a very pronounced distinction between declarative object knowledge and more procedural knowledge of a situation or event.

Declarative object knowledge contains the more extensional meaning of symbols or terms as we would find in dictionaries or encyclopaedia, while linguistic procedural knowledge relates to a greater extent to groups of words, sentences or entire texts. There is another immensely important aspect in our context: extensional procedural knowledge of events, whose representation of knowledge to this day remains inadequately researched in terms of its nature, its meaning and also its relationship with declarative object knowledge.

The actual meaning, that is the effective, very extensive semantics of linguistic units, always has a string of constituent elements. They must all be available in our minds in order to comprehend what initially is nothing more than a syntactical message. To improve clarity, the semantics of information will be divided at this point into three fundamental groups:

- **Extensional semantics**

This presents the relationship between symbols and terms and their extensional designators, in other words local objects and procedural events. In this, the meaning of a symbol or a term is initially reduced to nothing more than its designation of a real object or event. Extensional semantics also includes, often unconsciously, an adequate description or visualisation of the designated object or event within our semantic representation of knowledge.

- **Structural semantics**

This denotes the analysis of word groups or entire sentences and thereby determines the meaning of longer forms of linguistic expression than extensional semantics, irrespective of the position of the words, the tense and the sentence structure. This consideration focuses at all times on the comprehensive analysis of, and constant comparison with, our existing linguistic representation of knowledge in the respective language of choice.

- **Intensional semantics**

This discipline analyses the meaning of linguistic units, but not as absolute factors and instead at all times in their relationship with ourselves and our current internal and external situation. Furthermore, intensional semantics address a wide variety of links with other building blocks of our knowledge on at times extremely different semantic levels of the semantic representation of knowledge we hold in our minds, building blocks that have grown over the course of our entire lives and that therefore possess a substantial degree of individuality.

¹³ cf. Klix / Roth / van der Meer (1991) Kognitive Prozesse und geistige Leistung, p. 1 ff. and p. 41 ff.

For these reasons, it is clearly apparent in all variant forms in the semantics of information that content is by no means located simply in the syntax of a transmitted message and that instead it emerges at a later stage through the direct relationship between language and the representation of knowledge we hold in our minds. One can safely conclude, therefore, that a model involving nothing more than a sender and a recipient will be entirely inadequate for a complete consideration of all three informational aspects in syntax, semantics and pragmatics. Any such model must always be expanded to include the recipient in his or her immensely important role as interpreter of the information. Only then are we able to determine the actual, at times extraordinarily complex and diverse meaning of information; only then does it transcend the scope of simple data and indeed evolve into actual information. Therefore, the representation of knowledge existing in our minds plays the most important role in its function of interpreting the information conveyed. It follows therefore that information, in all its three aspects of syntax, semantics and pragmatics, cannot take root until the message has been comprehensively interpreted.

This is why successful marketing communication must on all accounts consider the representation of existing knowledge among potential customers or even and to a substantial extent enhance this knowledge meaningfully in the interests of the customers by adding unique selling propositions inherent to the product itself. The actual semantics of an advertising message cannot bear fruit until the recipient has interpreted the information. If we accept, however, that no two people anywhere in the world will hold the same representation of knowledge or find themselves in the identical internal and external situation, it is clear that the results of interpretation will differ substantially. Consciously or unconsciously, these may be to the benefit or detriment of the party seeking to provide us with information. At times, even truly humorous circumstances may evolve, as each of us has doubtless experienced across a wide spectrum of communicative situations.

Hence, language is always the close mutual interaction between sequentially communicated syntax and the comprehensive interpretation of its semantics and pragmatics by the local representation of knowledge in our minds.

Additional factors include the external and internal situation in which the receiver and interpreter of information is found and that at all times permits a remarkable breadth of possible interpretations for one and the same syntactical sequence. So disturbances in the transmission channel between sender and recipient by no means constitute the only problem in any form of communication. Instead, problems emerge on the one hand as we can never know precisely in which internal and external situation recipients find themselves and on the other that we are unaware of the precise nature of the prior semantic knowledge they may already possess. In terms of what we are trying to communicate, these two facts produce an at times very pronounced range of variety in terms of possible semantic and pragmatic understanding on the part of the recipient. This remains applicable even if the communicated message arrives with the recipient in a syntactic form that is both entirely correct and complete. From this we can derive an urgent necessity to fundamentally reconsider Shannon's sender-recipient model as one tailored to the needs of marketing communication and other fields of science, also. Peter Janich¹⁴ describes this purely syntactic appraisal of engineering data transmission as a simple naturalisation of what is in actual fact culturally-predicated, naturally linguistic, human communication.

Students who complete their homework completely and conscientiously have an entirely different understanding of the teaching materials that build on this, compared with a classmate who has so far failed to internalise the same principles. **(semantic state of knowledge)**

Attentiveness within communication processes is occasionally subject to severe fluctuation, depending on the mental state and emotional situation of the other protagonists within the communication, hence producing sometimes striking disturbances in the process of understanding. **(internal situation)**

It is important also when studying source materials to consider the cultural use of language at the time the source of information was produced. Only a comparison with other sources from a longer history of development and discourse can provide a complete overview. In communication, therefore, the relative meaning of information supersedes its absolute meaning; it must be placed in a direct relation with our knowledge, our use of language and with our internal and external situation.

¹⁴ cf. Janich, Peter (2006) Was ist Information, p. 26 ff

Commonality in the situation of socio-cultural discourse, in which all parties to the communication find themselves, is another mainstay in comprehensive semantic understanding. This factor has a determinant influence on our use of language. To the greatest possible extent, it should be common knowledge in order to assure successful communication. Nevertheless, our awareness of what the other parties to the communication already know and in what kind of internal and external situation they find themselves is, more often than not, inadequate. This is why sufficient clarification of an entirely new semantic perception is required within modern advertising claims. (**common socio- cultural discourse situation**)

Marketing communication is quite simply compelled to consider these aspects due to what is at times an extraordinarily complex nature of ecological contexts in the modern demands that potential consumers express. Accordingly, these demands assume a prominent position and override all previous models of stimulus and response in the field of marketing communication especially. And whatever else is true, we increasingly seize the initiative in the progressive interpretation and assessment of all that is presented to us in a pictorial and textual form. In this, the technical resources and social communities now provide us with previously undreamt-of possibilities. And so it is no surprise that more and more our own representation of knowledge comes to the forefront and occupies centre-stage in all forms of communicative events.

All of this yields an entirely new paradigm for a communication model that, subject to extensive and ongoing debate, will be within our grasp as the future unfolds:

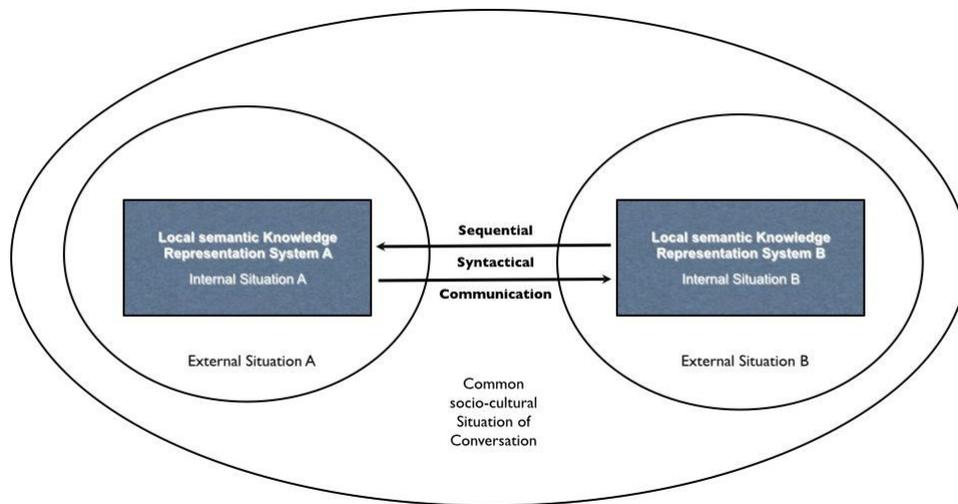


FIGURE 4: COMMUNICATION MODEL BY ANDRÉ STUTH FROM 2012

Accordingly, marketing communication is called upon to place a far greater focus on correctly addressing the building blocks of knowledge we already possess and only then to consider how the attendant claim can be packaged in catchy syntax or appealing images. Equally, it will become increasingly important to convey by semantic means entirely new building blocks of knowledge to potential consumers, ones that meaningfully and sustainably enhance their momentary representation of knowledge.

The Internet and social media mean that these days, the discussion and the final assessment take place to a far greater extent directly between consumers and hence within their own social groups.

In this way, consumers acquire a more pronounced independence from the time-honoured marketing instruments that major providers deploy. So modern consumers are forced within a complex media landscape to rely much more on their own knowledge or the experience held within a larger social group than has ever been the case before.

This means that our own knowledge acquires a far greater meaning than it possessed in the past.

The deluge of information we face in the modern age comes with clearly evident advantages; but there are a number of drawbacks, too. For instance, it is becoming increasingly difficult to sift through the immense, daily flood of information pouring forth via the media and into our own living rooms to identify precisely what is necessary and relevant for our needs. More and more, we are living in a society of information overload, from which only our own knowledge and that of our social group can offer freedom.

We cannot and should no longer occupy our minds with the totality of this information; instead we must focus deliberately on our interests, select according to principles of relevance and therefore assess information only against the knowledge we already possess and the sources we seek.

Increasingly, the spotlight is trained on discussions within a social group. On what seems an endless number of channels, the range of mass media today produce a clearly tangible, background noise of information that for the unpractised observer regrettably conceals a large quantity of important and indeed urgently needed aspects of information.

So Holger Lyre¹⁵ remarks quite rightly that it is absolutely necessary and in actual fact imperative for us to understand and conceptualise the modern world as a knowledge and education society. Only this can enable us to cope with, and meaningfully handle, the colossal flood of information in our living rooms and workplaces.

¹⁵ cf. Lyre, Holger (2002) Informationstheorie, p. 15

References

- [1] Asendorpf, J.B.(2009) Persönlichkeitspsychologie
- [2] Janich, P. (2009) Was ist Information? Kritik einer Legende, Suhrkamp Verlag, Frankfurt a.M.
- [3] Klix / Roth / van der Meer (1991) Kognitive Prozesse und geistige Leistung, Deutscher Verlag der Wissenschaften, Berlin
- [4] Kuhn, T. S. (1970) Die Struktur wissenschaftlicher Revolutionen, Suhrkamp, Taschenbuch Wissenschaft, Frankfurt a.M.
- [5] Kuhn, T.S. (1977) Die Entstehung des Neuen, Suhrkamp Taschenbuch Wissenschaft, Frankfurt a.M.
- [6] Masterman, M. (1970) The Nature of a Paradigm, In: Imre Lakatos / Alan Musgrave: Criticism and the Growth of Knowledge, Cambridge, p. 59–90
- [7] Morris, C. W. (1938) Foundations of the Theory of Signs, (German edition 1988) Grundlagen der Zeichentheorie, Fischer Verlag, Frankfurt a.M.
- [8] Lyre, H. (2002) Informationstheorie, Wilhelm Fink Verlag GmbH & Co. KG, Munich
- [9] Pepels, W. (2011) Marketingkommunikation, 2. überarbeitete Auflage, UVK Verlagsgesellschaft mbH, Constance and Munich
- [10] Shannon, C. E. (1948) A Mathematical Theory of Communication, In: Bell System Technical Journal 27, p. 379 ff. and p. 623 ff.
- [11] Vergossen, H. (2004) Marketingkommunikation, Friedrich Kiel Verlag, Ludwigshafen

User's attitude to publicity in social webs. A study developed in Mexico

Juan Antonio Vargas-Barraza, mniudg@gmail.com

Yolanda Araceli Martínez-Padilla, yoli_martinez@msn.com

Juan Gaytan-Cortes, jgaytan@cucea.udg.com

Universidad de Guadalajara – CUCEA

User's attitude to publicity in social webs. A study developed in Mexico

Abstract

Being publicity defined as the placing of news and messages to persuade or to inform the members of a specific target market about products, services and ideas (AMA, 2013). In the later years advertising in electronic media has been rising its numbers (Nielsen, 2012) and with the users more able to control what they like to watch (Duboff and Wilkerson, 2010), it is important to determine the attitudes of the users towards advertising in social webs. The attitude has been divided in four components: trust, information, entertainment and irritability, in order to verify if the advertising has been effective, or positively received by the users.

Studying several models of attitudes toward the advertising (MacKenzie and Lutz, 1989; Ducoffe, 1996; Brackett and Carr, 2001; Kwek, Tan, and Lau et al., 2010; Hsu-Hsien, 2011; Taylor, 2011), this work came up with a model made of four variables: trust, information, entertainment and irritability) that help to explain the varying attitudes of users to advertising in social webs. For the data analysis, we use inferential statistics; we measured the correlations between these variables and the users (Mexican students). Information of descriptive statistics is also showed to allow a better picture of the results. The study is focused in the analysis of the students and facebook, because is the main social network used in Mexico (AMIPCI, 2012).

This methodology is innovative because advertising has been studied basically on traditional media, and is proposing a new model for the study of the attitude toward advertising on line. Also this research made a review of trends and the use of social webs in Mexico. The outcomes of the research will be helpful for future advertising campaigns, presenting relevant data about which factors are more positive from the users to the advertising.

Keywords: *Social Webs, Advertising, e-marketing, social networks*

Introduction

Advertising is defined as “any kind of interpersonal communication paid, in which the known sponsor presents and promotes ideas, products or services, the ads are then an effective way to disseminate messages, whether to build brand preference, or to educate consumer” (Kotler and Keller, 2006).

The American Marketing Association (2013) define advertising as “the placement of announcements and persuasive messages in time or space purchased in any of the media by commercial businesses, non-profits, government agencies, and individuals seeking to inform and / or persuade members of a particular target market or audience about their products, services, organizations or ideas”.

For purposes of this study is understood that advertising communication by means other companies, either with or without profit, in which they seeks to disseminate messages, inform or persuade a particular target market about their products, services or ideas. In this case the research focuses in the Internet.

Society has evolved rapidly due to the opening in the media such as the Internet; now this is available for a larger number of users growing so it is important to consider its importance in marketing communication. The electronic media advertising has increased in recent years and these can be seen in the report presented by Nielsen in 2013, entitled “2013 Outlook Online Advertising Performance” which surveyed online to a total of 287 companies leading brand, 176 executive agencies and 152 advertising representatives who have participated during the months of January and February 2013. Figure 1 shows the results of the research highlight the importance of social networking in the advertising budget of the company, whose tendency is to increase spending on online advertising, 70% expressed the intention to increase its investment in advertising Social Network this year, these being the first medium in which they are willing to invest, secondly the increase in mobile advertising (69 %) is found, the third place is video advertising (64%) and fourthly Rich Media advertising is a 23 % increase in advertising spending in the means.

Consumers have adopted new habits and ways of interacting with each other, opening communication technologies, people can relate to very large distances and immediately. One means to accomplish this communication in which users can express themselves and talk is social networking. Social media is transforming the way consumers worldwide make purchase decisions, since they are using social networks to learn about the experiences of other consumers, to find out more information about brands, products and services, and to find deals and purchase incentives. (Nielsen, 2012).

Advertising in Social Networks

Social networks can be defined as a well-defined set of actors (individuals, groups, organizations, communities, global partnerships, etc.) Linked to each other through a relationship or a set of social relations" (Lozares, 1996). Social Networks are classified according to the kind of transfer or exchange that occurs in the network, and can perform basic functions for the survival of its members, improve the quality of life of its members or maintain a social bond, social networks serve as an emotional support or instrumental support to provide information, allowing the community to define in terms of relationships and social ties that exist between the members (Abello Llanos, Madariaga Orozco, and Sierra García, 1999). Social networks are clearly on the rise compared to other social media such as blogs, who have become much more specialized than before in their topics, and also within social networks, people are motivated to join communities brands online to be part of a movement and be aware of the news firsthand related brands they care about. McCann University proposes that when a marketing project begins in Social Media; consider why people are getting involved in them and what their motivations are, before trying to understand the platform itself (Hutton and Fosdick, 2011).

Social networks are important for companies because they represent a means of communication that has an impact on the Internet. According to the study presented by the AMIPCI in 2012 on the Habits of Internet Users, the main sites that Mexican Internet recalled seeing advertising was search engine (66%) and on social networking sites (57%).

Social Media sites currently help consumers make purchase decisions by opinions, tastes and preferences of a much larger set of people who before had driven internet access (Nielsen 2012). Currently Social Media users in that period, at least 70% listen to the experiences of others, 65% learn about brands, products or services, 53% expressed positive views of the brands, and 50% also express their complaints or concerns regarding brands or services they have used, which provides a range information available to a large number of people who might be interested and who value those opinions. Moreover not all advertising on Facebook ends in a purchase decision because in an article published by Oreskovic in 2012, emphasizes that four out of five Facebook users have never bought a product or service as a result of advertising or comment on social networking sites, even when the comments and recommendations made by friends in Facebook are very important for them. Also, consulting firm McKinsey & Company, believes in the power of word of mouth recommendations given on the internet, and explains that it is the primary factor affecting between 20 and 50% in the process of decision making Cart (Duboff & Wilkerson 2010). As for internet, 80% of users seeking information about brands and products on the Internet and 75% stop to see online advertising according to the study of Mexico Interactive Advertising Bureau (IAB) in 2012.

Social networks have been a means of communication of important double track between businesses and consumers and is therefore recommended that companies monitor their brand's reputation and respond appropriately when (Duboff & Wilkerson, 2010) this is necessary. Companies in Mexico have used social networks as a communication tool with their market; social networks have served companies to connect with the audience that they wish to connect with the brand. Through this dialogue have managed to generate brand awareness, for example, Grupo Bimbo has focused on music as its best tool to connect with younger audiences through social media and Grupo Modelo has created quality content to the audience by music, sharing videos on YouTube. (Violante, 2012).

Advertising on Social Networks

Advertising in Social Networks can be used to strengthen the brand and position in the minds of consumers, competition, however traditional advertising remains necessary, online advertising, could be carried out exclusively once the brand has achieved considerable recognition and value (Pfeiffer & Zinnbauer, 2010).nThe two main benefits are to make social media marketing include increased exposure and increased traffic. In fact 58% of advertisers had used social networks for more than three years indicated that had helped them increase their sales. (Stelzner, 2012)

Giamanco & Gregoire (2012) note that more and more people research online before making purchases, advertising has changed from being sent to be searched by potential buyers because buyers now begin the process of

buying, research the company and advance in product research and business, for when they get to the store or contact the seller carry most advanced process of purchase.

It has become a trend that people investigate by reading blogs, watching videos on YouTube and participate in forums and using Google to search the offers and promotions and do not look much on advertising that creates a company in its page, and the information circulating on social networks about the company and the product, direct information from people is more valuable when seeking references on products that interest them, not participate in Social Networks puts companies at a competitive disadvantage, it is desirable to train people and create policies participation in them, because once customers learn to have contact through social networks, it will be impossible to sell without them (Giamanco & Gregoire 2012) .

Whenever it can be seen that social networks are used by a greater number of companies to advertise, so it is advisable to know the attitude of social network users to the same, in order to find those factors that are most important in advertising. The media represent a great opportunity for brands to gain recognition among consumers; savvy marketers can leverage the growing adoption and influence of social media for business impact (Nielsen 2012).

People who use social networks have seen advertising in them, and companies are increasingly interested in leveraging this communication platform for people to promote their products or services. It is therefore important to know the attitude of the consumer in terms of advertising on social networks, for brands that advertise in them enjoy good acceptance by users.

Now with the ease of communication offered by the Internet, people can interact with organizations. A tool that provides this facility is a social network, their usage characteristics. Is useful to know which factors considered important to users that organizations using this platform to offer the best experience to your potential or current customers, and they are favored with increasing exposure of their brands.

Within social networks, which has the highest number of Internet registry is Facebook, because 90% of people in a social network are also registered to it. Of the respondents, 90% access social networks daily, and 46% do so also from your Smartphone (AMIPCI, 2012). By the previous discussion, we can highlight the importance of considering social media as an important mean.

The social network users now have more control of the brands than few years ago. Have the ability to use social media to criticize a brand, communicate your experience or opinion, send links to web sites, videos or articles with information and create content on blogs. (Duboff & Wilkerson 2010).

Due to the fact that in Mexico there is no extensive research regarding advertising on social networks, it is convenient to open an investigation to study the attitude of the young users of social networks in Mexico. Specifically this research focuses on young students of the University Center for Economic and Administrative Sciences (CUCEA, in Spanish), since they have the characteristics of people who represent the majority users of Social Media in our country. The present investigation, therefore, possible to extend the knowledge we have of internet users in our country, as there is currently research exploring user attitude toward advertising in social networks but in other countries.

a. Attitude toward advertising

Means attitude, positive or negative evaluations, emotional meaning or tendency to action for a given product or idea, attitudes lead to consistently behave in similar objects (Kotler and Keller, 2006. P.194). It also can be defined as an overall assessment as expressing like or dislike an object, issue, person or action, (Hoyer, 2010. P.122), this being learned and resistant over time, thus reflects the evaluation generally something is done based on the set of associations linked with it.

The attitude toward advertising is defined as a predisposition to respond favorably or unfavorably to an advertising stimulus in particular during an exhibition (Lutz, 1985 quoted by MacKenzie, 1989). It is very important to know the attitude of consumers regarding the marketing strategy of companies, because when they have a strong negative attitude towards one or more aspects of the marketing practices of the company, they will not only leave to use the products but create a bad image for the company to share their negative experiences with family and friends.

In selecting the variables used in this investigation it was found that there are factors that are repeated and that influence consumer attitudes toward advertising. Studies that have measured, have evolved over time, began

having models that included a single variable and then the researchers evaluated other variables considered relevant and included in their models.

Throughout the studies, researchers have included variables that are not statistically significant, so that for purposes of this research, we used only those found to have consistency across studies. The four variables that have been studied in this work and that are validated with higher levels of Alpha Chronbach 95%, and that measure attitudes toward advertising are: trust, information, entertainment and irritation. The models presented here showed statistical validity which gave them the category of constructs as valid scale for measuring attitude. Presented below, in chronological order, the main models that were studied and served as the basis for defining the variables used in this research, the models begin with the study of attitudes toward advertising in general, and then continue climbing Internet advertising eventually the attitude toward advertising in social networks.

b. Ducoffe model (1996)

The models reviewed dealing with attitudes toward advertising in general, Internet advertising, and specifically the attitude towards advertising on social networks, where the variables considered for statistical methods of analysis were took from the following: MacKenzie & Lutz’s model (1989), Ducoffe’s model (1996), Brackett & Carr’s model (2001), Kwek et al. (2010), Hsu-Hsien’s model (2011) and finally Taylor’s model (2011).

This research study of the attitudes of social network users towards advertising on these sites is based in Ducoffe’s model (1996), which evaluates entertainment, information, and irritation. These three factors were the starting point to evaluate attitudes of social network users. The original model measured consumer attitudes toward advertising in general, was also applicable to Internet advertising. Moreover also sought to examine how the value of the ad is related to the attitude towards Internet advertising. The research consisted of a survey conducted in October 1995 in New York, 318 people utilize the internet service. Figure 1 show the model used in the research.

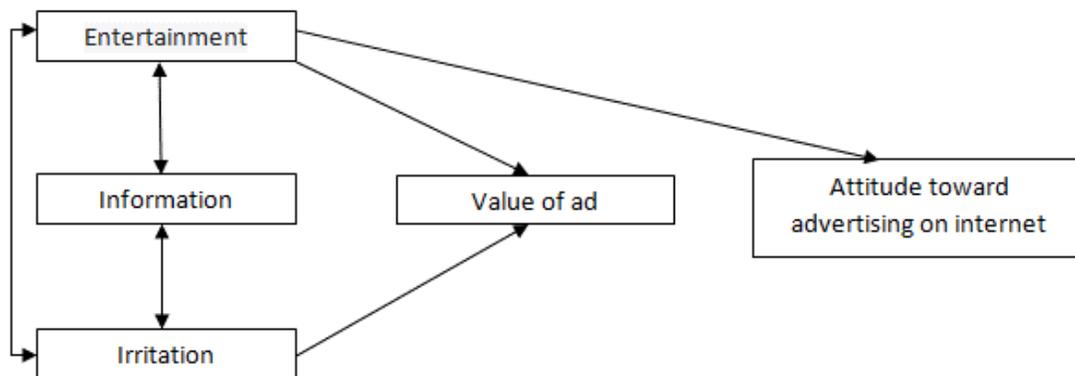


FIG. 1. DUCOFFE MODEL

Source: Own calculations based on the model presented in Ducoffe research (1996).

Advertising is perceived as valuable, combined with other aspects such as the diffusion medium, possibly contributing to the formation of positive consumer attitudes toward advertising. Some of the benefits explained by Ducoffe (1996) in relation to advertising on the Internet are the users who have access to information immediately, to offer the user the information deemed relevant, the flexibility to adapt to the needs ads consumers and the changing environment, and the ability to complete transactions online shopping, among others. He suggests in his study to optimize the value of advertising to consumers by creating messages that are as informative and entertaining as possible.

Later, other authors such as MacKenzie and Lutz (1989) and Eighmey (1997) postulated credibility as a variable with direct relation to measure the attitudes toward advertising. In addition, a variable with relevant demographic data was included. Brackett & Carr's model (2011), includes entertainment, information, irritation, credibility and relevant demographic variables. Hsu-Hsien (2011) makes a comparative study between interactive digital advertising and virtual brand communities, studying the motivations and the response toward marketing activities in social networks. The research presented by Taylor (2011) includes the independent variables aforementioned and the dependent variable attitude toward advertising in social networks.

Research Hypothesis

Among the main features that are important to evaluate the attitude of users toward advertising, according to studies, are information, reliability, entertainment and irritation. According to research, information, reliability and entertainment are positively related to the attitude of Internet users to social networks, and irritation is negatively related. The reliability, the information you provide, the level of perceived entertainment and advertising irritant resulting in social networks explain the attitude of users towards such advertising.

- H1. Perceived confidence by users regarding advertising in social networks influences the attitude of users towards it.
- H2. The perceived level of information users regarding advertising in social networks influences the attitude of users towards it.
- H3. The entertainment level perceived by users regarding advertising in social networks influences the attitude of users towards it.

c. Population and sample

For the purpose of this research study was sampled undergraduates of the University Center for Economic and Administrative Sciences (CUCEA) of the University of Guadalajara, as these students are the group most involved in social networks, which comprises young people between 15 and 24 years (AMIPC, 2011).

According to Bernal (2010), can estimate the size of a representative sample for a finite population using the following formula:

$$n = \frac{Z^2 \times P \times Q \times N}{E^2 (N - 1) + Z^2(P \times Q)}$$

Where:

- n = sample size for estimating (value to be determined)
- Z = confidence level or reliability margin (96%, Z value is 2.05 in tables)
- P = probability of success, because it is unknown is assigned 50%. (.50)
- Q = probability of failure, because it is unknown is assigned 50%. (.50)
- N = population size, CUCEA college students. (16,610) 2012B school year.
- E = the estimation error the researcher is willing to accept in terms of confidence level is defined for the study is 95%, so the error in this case is = 5% (.05). Replacing data in the formula below:

$$n = \frac{(2.05^2 \times 0.50 \times 0.50 \times 16,610)}{(.05^2 \times 16,609) + (2.05^2 \times 0.50 \times 0.50)} \quad n = \frac{17,450.88}{42.57} = 410$$

For a population of 16,610 undergraduates with a confidence level of 95% with an estimation error of 5%, it is necessary to survey a total of 410 college students. The survey was conducted during the school year 2012 B at the Universidad de Guadalajara, in the Center for Economic and Administrative Sciences (CUCEA, as in Spanish). A sample of 425 undergraduate students was sought for its courses in both morning and evening hours in the month of November 2012. In the study a total of 416 valid surveys are analyzed.

Validation of hypothesis

To validate hypothesis, a lineal regression process was run in SPSS program to measure each of constructs relative to the attitude variable. To classify the relationship of each independent variable with the dependent variable is used, the criterion used by Cortina (1993), in which values of .3 indicate a modest correlation, values of .5 indicate an average correlation and values of .7 indicate a high correlation. The results obtained from the SPSS system, are used by introducing all reagents that make each independent variable to measure the relationship with the dependent variable.

Regarding hypothesis 1, table 1 shows that the attitude toward advertising presented on Social Media is explained in 10.4% depending on the perceived confidence by users regarding the advertising they observed.

TABLE 1: SUMMARY OF REGRESSION ANALYSIS MODEL USING CONFIDENCE VARIABLE.
SUMMARY OF THE MODEL

Model	R	R square	R square corrected	Error tip. Of estimation
1	.343	.117	.104	.63525

A Predictor variable: (Constant), TRUST 6, TRUST 1, TRUST 4, TRUST 2, TRUST 3

Source: Results generated by SPSS system when analyzing collected data

Regarding hypothesis 2, the table 2 shows that the attitude toward advertising presented in Social Network is explained in 12.1%

TABLE 2: SUMMARY OF THE REGRESSION ANALYSIS MODEL USING INFORMATION VARIABLE

Model	R	R square	R square corrected	Error tip. Of estimation
1	.366	.134	.121	.62925

A Predictor variable: (Constant), INFORMATION 6, INFORMATION 1, INFORMATION 2, INFORMATION 4, INFORMATION 3, INFORMATION 5

Source: Results generated by SPSS system analyzing collected data

Regarding hypothesis 2, the table 3 shows that the attitude toward advertising presented in Social Network is explained in 18.4% by the entertainment level perceived by users.

TABLE 3: SUMMARY OF THE REGRESSION ANALYSIS MODEL USING ENTERTAINMENT VARIABLE

Model	R	R square	R square corrected	Error tip. Of estimation
1	.286	.082	.071	.64704

A Predictor variable: (Constant), ENTERTAINMENT 6 ENTERTAINMENT 5, ENTERTAINMENT 1, ENTERTAINMENT 4, ENTERTAINMENT 3. ENTERTAINMENT 2

Source: Results generated by SPSS system analyzing collected data

The table 4 shows that the attitude toward advertising presented in Social Network is explained in 7% by the irritation level perceived by users in connection with such advertising.

TABLE 4: SUMMARY OF THE REGRESSION ANALYSIS MODEL USING IRRITANT VARIABLE

Model	R	R square	R square corrected	Error tip. Of estimation
1	.286	.082	.071	.64704

A Predictor variable: (Constant), IRRITANT 5, IRRITANT 1, IRRITANT 3, IRRITANT 4, IRRITANT 2

Source: Results generated by SPSS system analyzing collected data

Development Model

To prepare the linear regression model a factor analysis in SPSS system was made by the method of successive steps to ensure the levels of significance.

It can be seen in Table 5 that the leading variables for the study that have greater relevance are the entertainment variables, trust and information.

The model generates three variables as more important as the limits for the significance level, which was determined in 95%, so that the values were not adjusted to this range was automatically discarded.

TABLE 5: ANALYSIS OF THE COMPONENTS BY THE STEPWISE METHOD INTRODUCED VARIABLES/ DELETED

Model	Introduced Variable	Deleted Variable	Method
1	ENTERTAINMENT 6		By steps (criteria: Prob of F to get in < .050, Prob. Of F to get out > = .100)
2	TRUST 6		By steps (criteria: Prob of F to get in < .050, Prob. Of F to get out > = .100)
3	INFORMATION 6		By steps (criteria: Prob of F to get in < .050, Prob. Of F to get out > = .100)

a. dependent variable: ATTITUDE 6

Source: Results generated by SPSS system analyzing collected data

The linear regression analysis by the stepwise method was used to obtain an overview of the model and observe the changes in R square for each component proposed by the system. It can be seen in table 28.

The first model includes only the entertainment variable and explanatory variable indicates that the attitude toward advertising in social networks itself in 16.5%.

The second model also includes the trust variable and indicates that the set of these two variables explain the attitude towards social media in 20.5%.

The third model also includes information variable and indicates that all of these three variables explains the attitude by 21.3%, with significance greater than 95%.

TABLE 6: QUOTIENTS OF INDEPENDENT VARIABLES USING FOLLOWING STEPS METHOD SUMMARY OF THE MODEL

Model	R	R square	R square corrected	Error tip. Of estimation	Change in R square	Change in F	gl 1	gl2	Next change in F
1	409a	.167	.165	.61338	.167	83.011	1	414	.000
2	457b	.209	.205	.59861	.042	21.676	1	413	.000
3	468c	.219	.213	.59537	.010	5.512	1	412	.019

a predictor variable: (constant), Entertainment construct

b predictor variable: (constant), Entertainment construct, trust construct

c predictor variable: (constant), Entertainment construct, trust construct , Information construct

Source: Results generated by SPSS system analyzing collected data

The value of the square R is the coefficient of determination in the model, and it indicates the proportion of variance in the dependent variable that is explained by the independent or production variables, the coefficient is located between 0 and 1, the higher the value of R square, the greater the explanatory power of the regression equation, and therefore the prediction of the dependent variable. (Hair, 2010. p.193).

In Table 6 the model that includes the three variables that were significant in explaining attitudes toward advertising in 21.3%, taking into account the adjusted R value and not the value of R because increasing the number of observed variables in an equation, it will increase the value of R square.

It is therefore necessary to adjust the value of R so that it is representative. The R square value increased with the increase in the number of variables used, or decrease if a variable that is not statistically significant in the equation is introduced, that is, it does not affect the dependent variable. To obtain the adjusted R squared value, you can detect which variables are the ones which explain better the model and in what proportion do. (Hair, 2010).

Table 7 shows three different models that SPSS system determined that met the criteria of specified significance following the stepwise method. In the first model, entertainment variable is only included and awarded a weight of .421, indicating that for every change in 1 of entertainment, attitude will change in .421.

In the second model, the confidence variable is introduced and values are distributed, entertainment variable has bigger weight and affects attitude in .361 while confidence does in .261.

In third model, the system included the variable information, as this has the least influence of the three, but also meets the criteria of reliability; it give them weights of .304, .234 and .129 to entertainment, information and confidence respectively.

TABLE 7: MODELS RESULTING FROM THE REGRESSION ANALYSIS BY THE METHOD OF SUCCESSIVE STEPS. COEFFICIENT A

	Non standardized coefficients	Non standardized coefficients	Standardize Coefficients	t	Next
Model	B	Error Tip.	Beta		
1 (Constant)	1.826	.140		13.045	.000
Entertainment Construct	.421	.046	.409	9.111	.000
2 (Constant)	1.287	.179		7.188	.000
Entertainment Construct	.361	.047	.351	7.702	.000
Confident Construct	.261	.056	.212	4.656	.000
3 (Constant)	1.072	.200		5.359	.000
Entertainment Construct	.304	.053	.295	5.760	.000
Confident Construct	.234	.057	.191	4.127	.000
Information Construct	.129	.055	.121	2.348	.019

Source: Results generated by SPSS system analyzing collected data

This model is obtained from the above information to explain the dependent variable attitude, based on the significant independent variables: *Attitude toward advertising in Social Media = 1.076 + .304 + Entertainment + .236 Trust + .127 Information.*

Third model that includes three variables found by the system and consider as significant to explain attitude toward advertisement in Social networks was used. This model as a whole using the adjusted R explains the attitude towards social media by 21.3%, the rest is explained due to external factors to those studied here. (Hair, 2010. p.156).

Conclusion

Analyzing data using SPSS statistical system shows that entertainment and reliable information are relevant for social networks users when having a positive attitude toward advertisement presented within them. These findings are consistent with previous research that found that advertising is considered entertaining (MacKenzie & Lut, 1989; Kwek, et al. 2010; Hsu-Hsien, 2010; Taylor, 2011), informative (MacKenzie & Lutz, 1989; Brackett & Carr, 2001; Kwek, et al. 2010; Hsu-Hsien, 2011; Taylor, 2011) and that the credibility is an important factor to evaluate their attitude towards it (MacKenzie & Lutz, 1989; Backett & Carr, 2001; Kwek, et al. 2010).

Moreover, the irritation factor had no significant relevance when determining the attitude of users toward advertising presented in social networks, in contrast to the results obtained by Brackett & Carr (2001).

The research results indicate that 38% of respondents have a positive attitude toward advertising presented on social networking sites. When presenting advertising on social networking sites is important to consider various features of the ads so that users can have the same positive attitude. When internet users are on social networking sites, these are not actively looking for ads brands, but they are interested to know the opinions of people who are part of their social network regarding products or services that have used, and which they can share their experiences. People value the evaluations made by the people who are part of their social circles, so they are receptive to receiving information that might be useful.

Advertising that is presented in the Social Networking sites must possess characteristics that make users have a favorable attitude toward it so it should include features that are valued. It is advisable advertising is attractive, containing characteristics that make it interesting, entertaining and funny, it is also important to be a reliable source of information so what is presented in advertisement must be relevant to spectator to adjust advertising to target audience, finally is important that ads are reliable, it means, advertiser and ads represent a reliable source of information on which the target audience can take as real to base their purchase decision.

The relevant advertising allows Internet users who are constantly looking for information on the Internet to make more informed purchases; an ad which provides clear and honest information will be more attractive to consumers. Reliable advertising will enjoy acceptance among internet users.

Finally, Internet users will have a better attitude toward advertising in social networks, if it has features that make it fun and entertaining. Internet users have a positive attitude toward advertising presented in social networks so they can be used by brand to create brand awareness and loyalty, recommendations spreading the word, favoring the opportunities to become viral certain advertising content. When a Social Network user has a positive attitude toward advertisement seen, he tends to share to share it among his network contacts which facilitates the spread of content, sometimes making them viral.

Limitations

This research focused on students of the Universidad de Guadalajara, in CUCEA, the campus for Economic and Administrative Sciences, but is not representative of the population, so it is necessary to make wider to deepen consumer awareness tests. This research is limited by the studied population; it is therefore not representative of Mexican society, or the population of Jalisco. Therefore, intended to provide a better knowledge of the consumer regarding to his attitude toward advertising in Social Networks.

It is important to consider that this was not a controlled study and it would be desirable to create a study in which the variables are managed and can perform other types of statistical analysis that allows obtaining more precise information.

The study was made considering only advertising showed in Social Networks, and it does not consider pages created by brands inside the social networks. There are research that show that virtual brand communities within Social Networks sites are well received by the internet users, since they are part of those communities seeking information, as well as offering opportunities for brand promotions (Hsu-Hsien, 2011). Investigate about advertising in virtual brand communities is a future line of research that was not covered in the present study.

References

- [1] Abello Llanos, R., Madariaga Orozco, C. and Sierra García, O. (1999), Relationship between the social networks and the family dynamics of low-income working women. *J. Community Psychol.*, 27: 243–255. doi: 10.1002/(SICI)1520-6629 (199905)27:3
- [2] AMA American Marketing Association, (2013). *Resource library*. Taken on may 10, 2013 from http://www.marketingpower.com/_layouts/Dictionary.aspx?source=footer
- [3] AMIPCI (2012). *Hábitos de los usuarios de internet en México*. <http://www.amipci.org.mx/?P=editomultimediafile&Multimedia=115&Type=1>
- [4] Brackett, L. K., Carr Jr., B. N. (2001). Cyberspace Advertising vs. Other Media: Consumer vs. Mature Student Attitudes. *Journal of Advertising Research*, 41(5), 23-32.
- [5] Duboff, R., Wilkerson, S. (2010). Social Media ROI. *Marketing Management*, 19(4), 32-37.
- [6] Ducoffe, R. H. (1996). Advertising Value and Advertising the Web. *Journal of Advertising Research*, 36(5), 21-35.
- [7] Hutton, G., Fosdick, M. (2011). The globalization of social media: Consumer relationships with brands evolve in the digital space. *Journal of advertising research*.
- [8] Hsu-Hsien, C. (2011). Interactive digital advertising vs. Virtual brand community: exploratory study of user motivation and social media marketing responses in Taiwan. *Journal of Interactive Advertising*, 12(1), 44-61.
- [9] Kotler P. Keller, K. L. (2006). *Dirección de marketing*. Pearson Educación de México SA de CV.
- [10] Kwek Choon, L., Tan Hoi, P., Lau Teck, C. (2010). The Determinants of Consumers' Attitude Towards Advertising. *Canadian Social Science*, 6(4), 114-126.
- [11] Lozares, C. (1996). *La teoría de redes sociales*. *Revista Papers*, 48, 103-126.
- [12] MacKenzie, S. B., & Lutz, R. J. (1989). An Empirical Examination of the Structural Antecedents of Attitude Toward the Ad in an Advertising Pretesting Context. *Journal of Marketing*, 53(2), 48-65
- [13] Nielsen. (2012). *State of the Media: The Social Media Report 2012*.
- [14] Oreskovic, A. (2012). *Facebook comments, ads don't sway most users: pool*. Reuters. <http://www.reuters.com/article/2012/06/05/net-us-facebook-survey-idUSBRE85400C20120605> july 5 2012.
- [15] Taylor, D. G., Lewin, J. E. & Strutton D. (2011). *Friends, Fans, and Followers: Do Ads Work on Social Networks?* *Journal of Advertising Research*, 51(1), 258-275.

Contact the authors for the full list of references

Brand Preferences of Slovak Consumers

Lucia Vilčeková, lucia.vilcekova@fm.uniba.sk
Faculty of Management, Comenius University in Bratislava, Slovakia

Brand Preferences of Slovak Consumers

Abstract

The paper describes brand preferences of Slovak consumers in terms of domestic vs. foreign brands. The introduction to brands and brand buying behavior is provided at the beginning, followed by brief description of brand recall and importance of brand preferences. Then description of research methodology is mentioned and finally, research results are presented. The representative research was conducted in year 2013 on a sample of 1067 Slovak consumers older than 16 years of age. They were presented with a list of 27 statements concerning their attitudes towards domestic and foreign brands and their brand buying behavior. Based on the research results, Slovak consumers can be seen as very brand oriented and they care about brands and brands names and they make their buying decision based on brands. They prefer to buy Slovak products, but it is sometimes difficult to find domestic brands in stores, especially in consumer goods and textiles.

Literature Review

Brands are projected values in the minds of customers and without this psychological commitment there are just unrecognizable products or services. Therefore brand is commitment and marketers need to understand consumer and how his mind works to be able to build a real relationship between consumers and products (Temporal, 2010). An understanding of consumer behavior frames a brand's competitive advantage (Greifenberger, 2009). Prior to a purchase the brand can increase consumer's efficiency of perception, processing and storage of information. The actual decision making activity can be easier because brands reduce uncertainty and reduce risk of a purchase and in the post purchase stage, the image benefits of brands emerge (Klaming, 2006).

There are products of various origins offered to customers, which is a consequence of globalization and merging and connecting markets. The formation of global economy has noticeably widened the presence of foreign products on domestic markets. This has stimulated interest in examining the role of country of origin and its consequences on consumer behavior. It can be considered a cue that is capable to summarize information on products, brands and firms from different countries. Therefore, country of origin can be seen as one element of a brand that helps consumers to connect the brand to a specific country. At times, product origin may suppose a barrier to the trade of goods and services within or between countries. Consumer preferences for foreign and domestic products could be influenced by trust in foreign firms, consumer ethnocentrism and negative feelings towards a specific country (Torres and Gutiérrez, 2007). The influence of country of origin on brand buying behavior has been studied for decades. But in times of globalization, when products are designed in one country, manufactured in another and assembled in another one, consumers are confused and are often not able to identify or recognize domestic products. Globalization has increased the opportunities for companies to distribute their goods to consumers all over the world. At the same time, consumers are able to choose from a broad range of products and services in almost any category. International product adaptation makes it difficult to differentiate between goods.

Marketers are eager to understand how consumers form their preferences toward a specific brand. Brand preference is closely related to brand recall, which can activate brand purchase. Knowing the pattern of consumer preferences is an integral part of every marketing analysis. It can uncover the differences in purchase preferences and can lead to more effective segmentation and ultimately to more effective marketing strategies. In marketing, the word preference means the desirability or choice of an alternative. Preferences depend on the salient beliefs that are activated at a given time; the consumer biasness toward a certain brand; the extent to which a consumer favors one brand over another (Ebrahim, 2011). Market researchers have long known that buyer awareness of a brand strongly influences preference for that brand. Research now shows that 70% of buyers must be aware of your product before 25% of them will make it their preference. The relationship between brand awareness and preference follows an S-shaped curve. Most companies must significantly increase awareness to achieve desired gains in brand preference. Awareness-preference ratios do not typically reach a 1:1 relationship until awareness levels are higher than 70%. Typically, a brand known by more than 70% of the market is preferred by 25% of customers. At this stage, brand preference increases 1% for each 1% increase in awareness (5metacom.com, 2006). Brand awareness is the first dimension of the entire brand knowledge system in consumers' minds, reflecting their ability to identify the brand. It is the likelihood that a brand name will come

to mind of a customer. It can be depicted into:

- Brand recognition - consumers' ability to confirm prior exposure to the brand when given the brand as clue. It is recognition of a given brand among others and it indicates a weak link to the brand.
- Brand recall - consumers' ability to spontaneously retrieve the brand when given the product category, the brands are named by the consumer spontaneously. These the brands in the range of a customers' choice when making a buying decision (Moisecu, 2009).

Good brand recall and recognition have a numerous desirable effects for a company (Koniewski, 2013):

- the recall of one brand blocks off the other brands from the range of alternatives in which the consumer makes his decision,
- within a set of familiar brands consumers pick the ones better known to them, especially if they cannot see any special differences between the competing offerings,
- brand awareness forms the basis for a clear and attractive brand image,
- brand recall coupled with high customer satisfaction levels translates into customer loyalty.

In the following part, brand recall of Slovak consumers will be examined and their preferences for domestic vs foreign brands.

Methodology

In order to get accurate results for this paper, a representative research was performed within a scientific project called "Analysis of the strategic process of brand building and brand management in the context of homogenization and individualization of consumer needs". The population for the research were Slovak consumers 16 years of age and older. In total numbers it is more than 4.5 million consumers. According to the nature of the study and the goal to generalize the results for the whole population, following formula (1) for indefinite populations was used to determine the sample size:

$$N = \frac{z^2 \times p(1-p)}{H^2} \quad (1)$$

Where N is the sample size, Z is the value of test statistics corresponding to a confidence level, p is the sample proportion and H is the permissible error. In our research we calculated with the confidence level of 95 percent (test statistics to this value is 1.96), sample proportion was 0.5 since we wanted the most conservative sample size and the permissible error was set to 3 percent, giving us the sample size of 1067. To be able to draw conclusions from the research and to get accurate results, quota sampling was used. It ensures that chosen subgroups are represented in the sample to the exact extent as they are in the population. The quotas of this research were gender, age, education, and income. Data was collected from January to April 2013 in Slovakia and the instrument for data collection was a questionnaire. To determine the spontaneous brand recall, the respondents were asked to name at least one brand they can recall and in the following question, at least one Slovak brand they recall. Then they were presented with a list of 27 statements concerning their attitudes towards domestic and foreign brands and their brand buying behavior. Likert scales, as a very common and easy tool for measuring attitudes, were used in the survey. The scales ranged from -2 (absolutely disagree) to +2 (absolutely agree). The data were evaluated in R, software for statistical computing and graphics. For better visualization of open-ended questions where a lot of various brands were mentioned, word clouds were used. They provide a visual summary of a collection of texts by differentiating the popularity, importance or frequency of appearance by font size. They also serve as a visual summary of document content (Lee et al, 2010).

Research Results

First, the results of an open-ended question are presented, followed by results from the attitudes measurement. To determine the spontaneous brand recall, the respondents were asked to name at least one brand they can recall. There are the 100 most frequent brand names presented in Figure 1.



FIG. 1: BRAND RECALL OF SLOVAK CONSUMERS

The most recalled brands are sport brands Adidas, Nike and Puma. The most mentioned brand overall was Adidas. The second biggest cluster of brands was technological with brands like Apple, Sony, Nokia and Samsung. To this cluster also belong, in terms of frequency appearance, Coca Cola and Škoda. Škoda is leading the spontaneous knowledge among car producers, followed by Mercedes, Audi and Volkswagen. In the third biggest cluster are Rajo, Figaro, Nivea, Panasonic, HP, Kia, Zara and Orion, meaning the most mentioned Slovak brands were Rajo and Figaro. Another Slovak brands that can be found in the cloud are Coop Jednota, Topvar, Orava and Slovenka. The most known clothing brands were Zara, being a leader in this cluster, followed by Tommy Hilfiger, Guess, Mango, Chanel and Hugo Boss. Another brands belonging to the 100 most mentioned brands by Slovak consumers were Milka, IBM, Microsoft, Ford, Orion, Reebok, Mc Donald's, L'Oreal, Nestlé, Eta.

In order to determine consumers' preferences for domestic or foreign brands, the respondents were presented with various statements about their attitudes toward brands and the results can be seen in Figure 2. Concerning attitudes toward domestic brands, Slovak consumers agree that Slovak products are high quality products, but it is sometimes impossible to find Slovak brands of certain products in the stores. Nevertheless, they tend to prefer Slovak products in their purchases because they like Slovakia and they want to support the country's economy. Slovaks trust domestic brands more than those of foreign origin and they usually buy food that is made in Slovakia. Considering foreign brands, Slovaks think they are more available and they usually buy consumer goods, footwear and textiles of foreign

origin. Consumers do not think that foreign brands do have better quality than Slovak brands. General attitudes of Slovaks toward brands can be described as follows: Consumers do have their favorite brands and they do not care if they were produced abroad or in Slovakia but they are very aware of the country of origin. They are brand oriented and they make their purchase decision based on brands. They are not willing to pay more for Slovak products, but they not hesitate to spend more money on their favorite brands. The consumers are interested in the country of origin and they are willing to take the time to search for the information of where the product they want to purchase was made. Brands play an important role for Slovaks, but the consumers are sometimes confused with the great variety of brands.



FIG. 2: BRAND PREFERENCES OF SLOVAK CONSUMERS

Discussion

Slovak consumers are considered to be brand oriented. Marketing experts say the economic crisis has had some effect on perception of Slovak consumers toward brands – the belief of certain brands names and their promise of quality grew stronger and the consumers became more price sensitive and when they give away their money they expect to get the desired performance.

The crisis made stronger the relation of Slovaks to traditional, established brands. Slovaks look for a certain guarantee of quality and certainty. And traditional brands provide exactly such a guarantee for them (Liptáková, 2011). Slovak consumers do not behave as patriots when they are shopping and retailers have already begun to see that Slovak consumers are becoming more price sensitive because of the worsening economic situation and that they are more often ignoring a product's country of origin when shopping. This is caused both by lower purchasing power of Slovaks and by a lack of consumer patriotism that was never built in Slovakia. Based on surveys conducted by GFK in 2011, Slovak consumers have a strong interest in purchasing domestic products but it is questionable whether they actually reach for those products when shopping (Liptáková, 2012).

Slovak consumers are brand oriented, they care about products they buy regardless of the price. When they have their favorite brands, country of origin is not important for them and they are willing to pay more money for it. The main reason for buying Slovak products is to support the economy and we can say that Slovak consumers are very aware of the benefits of supporting domestic production. Nevertheless, consumer ethnocentrism is not typical for Slovaks. In the past 20 years, many companies underwent a privatization by multinational companies that "domesticated" international products in Slovakia. Consumer ethnocentrism also depends on the share of domestic production compared to foreign products. There are certain industries in Slovakia where this share is in favor of domestic production – food industry. But there are many products where consumers are forced to buy foreign brands, because there is nearly no Slovak production, e.g. electronic devices, consumer goods, clothing...

When examining spontaneous brand recall of Slovak consumers, the most recalled brands were sport brands Adidas, Nike and Puma. The most mentioned brand overall was Adidas. The top of mind Slovak brands were Rajo and Figaro, both well established and traditional domestic brands from food industry. To raise the awareness of consumers about the benefits of purchasing domestic products the participation of government and manufacturers is needed. There are several institutions in Slovakia that support domestic production. Industrial Property Office of the Slovak Republic, a central state administration body responsible for industrial property protection; Slovak Association for Trademark Products that protects and promotes the common interests of manufacturers of branded products; Ministry of Agriculture and Rural Development with a program to label domestic agricultural and food products called „Quality Label SK“; Association of Trade and Tourism (ZOČR) introduced an initiative „Quality from Our Regions“ to increase Slovak consumers' awareness of domestic products. Promoting a positive attitude towards domestic product is beneficial and there is a need to invest in consumers' education to support Slovak economy in times of global economic crisis.

References

- [1] Ebrahim, R. (2011). *A Study of Brand Preference: An Experiential*. [Online] Available: http://www.brunel.ac.uk/_data/assets/file/0003/91182/phdSimp2011RehamEbrahim.pdf (March 25, 2014)
- [2] Greifenberger, E. (2009). *The Hub magazine*. [Online] Available: http://hubmagazine.com/archives/the_hub/2009/jul_aug/the_hub31_rak.pdf (October 23, 2013)
- [3] Klaming, G. (2006). *The changing role of brands in the age of empowered consumers*, [Online] Available: http://www.markenlexikon.com/d_texte/klaming_changing_role_of_brands_2006.pdf (November 1, 2013)
- [4] Koniewski, M. (2013). *Brand Awareness and Customer Loyalty*. [Online] Available: <http://www.research-pmr.com/userfiles/file/wp/Brand-Awareness-and-Customer-Loyalty.pdf> (March 21, 2014)
- [5] Lee, B., Riche, N., Karlson, A., Carpendale, S. (2010). SparkClouds: Visualizing Trends in Tag Clouds. *IEEE Transactions on Visualization and Computer Graphics*. 16 (6), 1182–1189.
- [6] Liptáková, J. (2011). *Brand loyalty continues to reign among Slovaks*. [Online] Available: http://spectator.sme.sk/articles/view/41335/24/brand_loyalty_continues_to_reign_among_slovaks.html. (November 12, 2013)
- [7] Liptáková, J. (January 2012). Seeking patriotic buyers in Slovakia. *The Slovak Spectator*. 4, 6-9.
- [8] Moisescu, O. (2009). The importance of brand awareness in consumers' buying decision and perceived risk assessment. *Management and Marketing*. 7, 103-110.
- [9] Temporal, P. (2010). *Advanced Brand Management: Managing Brands in a Changing World*. (pp. 58-59). Singapore: John Wiley & Sons (Asia).
- [10] Torres, N. H. J., & Gutiérrez, S. (2007). *The purchase of foreign products: The role of firm's country-of-origin reputation, consumer ethnocentrism, animosity and trust*. [Online] Available: http://gredos.usal.es/jspui/bitstream/10366/75189/1/DAEE_13_07_Purching.pdf (January 16, 2014)
- [11] 5metacom.com. (2006). *Brand awareness and customer preference*. [Online] Available: http://www.5metacom.com/documents/marketing_insights/Marketing_Insights-Brand_Awareness-Preference_Model.pdf (March 21, 2014)

Service marketing & Relationship marketing

**Service quality and profitability. An empirical study about clients
and financial advisors of the Allianz Bank F.A**

Antonella Angelini, antonella.angelini@unipi.it
Pisa University, Italy

Martina Bianchi, martina.bianchi@hotmail.it
Italy

Service quality and profitability. An empirical study about clients and financial advisors of the Allianz Bank F.A

Abstract

The paper considers the issue of quality of service provided and the effects of value on customers and businesses, particularly those operating in the financial field. The results of a first empirical analysis are presented in the paper. It refers to a sample of 64 customers of an agency of Allianz Bank FA and the financial advisors of that agency. The purpose of this study has been to measure the relationship between the level of customers' satisfaction regarding the provision of advice and asset management carried out by financial advisors and the value that they allow customers to create in favour of the promotion center Allianz Bank FA. For this purpose it has been used an analysis model of service quality specially designed on the SERVQUAL model and have been carried out the correlation analysis between the CSI of each customer and the profitability relative percentage with the consideration of the specific items of revenue for the agency obtained through the relationship with its own clients.

Introduction

For any company maintaining a loyal base of customers has become a must to remain competitive in its target markets. In service industries this is particularly true because of the word of mouth phenomenon they produce and develop, for the high resistance to switch a service provider (Butcher et. al., 2001) and for the substantial impact on profits (Anderson et al. 1994; Veloutsou et.al. 2004). Fundamental prerequisite for the generation of loyalty and to influence customer retention, market share and profitability (Anderson et.al 2008; Cronin et.al.2000; Nikbin et.al 2012) is the skill to satisfy customers. It's for this reason that customer satisfaction has been the topic of much attention in the literature. According to Oliver (1999:34) satisfaction can be defined as an evaluation of the perceived discrepancy between prior expectations and the actual performance of the product. Therefore customers' satisfaction is a result obtained from customer's before purchase comparison of expected function with perceived function and the paid price (Beerli et al., 2004). In every company, and in particular in service ones, it is essential to satisfy customers in order to create value both for customers and the company. For this scope the company must find the suitable activities in order to solve customers' problems (Gronroos, 2001). In this directions it appears critical the employee's role because directly involved in the service process. Besides their activity they define the service quality (with effect on service perceptions) that is absolutely important to distinguish the organization from its competitors and to gain competitive advantages (Ghobadian, Speller and Jones, 1994). With regard to this the study intends to analyze the relationship between the service quality and the economic performance of the activity conducted by the financial advisors of an agency of Allianz Bank FA located in Lucca. In particular, the main objective of the study is to measure the relationship between the service quality and the value that customers bring to the promoters of the Allianz Bank FA, with focus on the determinants of service quality. For this purpose the study consider initially the service quality assessment using a model developed on the basis of the SERVQUAL model and according to an indicator of economic performance of promoters; this indicator is calculated using specific parameters useful for this purpose. The results have been correlated each other and discuss about the most important aspects and the managerial implications.

The Sample

The sample considered in this study is representative of the total customers of the above-mentioned agency of the Allianz Bank FA and it has been identified through the method of stratified sampling. the total customers of the promoters are 358, classified as:

- 70 Major Account;
- 168 Medium Account;
- 120 Small Account.

The breakdown of the customers in the category large, medium and small has been carried on the AUM of the client, ie the total value of the saving of the individual subject managed by the promoter. The results obtained are the following

- < 20.000 euros: small client,
- between 20,000 and 200,000 euros:medium client,
- 200.000 euros: large client.

Later it has been determined the number of persons of the sample equal to 57, with a proportion of sampling $\frac{n}{N}$ that is $\frac{57}{358} = 0,159$.

Starting from the population and considering the proportion of sampling the sample is as follows (Tab.1):

TAB. 1 – THE SAMPLE

Customers	Proportion of sampling	Cluster of customers	
70	0,159	11	Large client
168	0,159	27	Medium client
120	0,159	19	Small client
358		57	

To obtain the desired sample, and therefore to guarantee a certain level of accuracy in the estimates, it has been decided to send a greater number of questionnaires compared to those just calculated. In particular, assuming likely a response rate of approximately 60%, it has been obtained a number of 95 questionnaires to send. This value has been divided proportionally according to the composition of the reference sample as follows (Tab.2)

$$\text{proportion of sampling } \frac{n}{N} \text{ that is } \frac{95}{358} = 0,265$$

TAB. 2 – THE SAMPLE

Customers	Proportion of sampling	Cluster of customers	
70	0,265	18	large client
168	0,265	45	medium client
120	0,265	32	small client
358		95	

Below a random selection was made of the customers within the predetermined categories in client portfolios and assigned a code number to each subject (c1, c2, c3 ..); this code was written on each questionnaire reported in such a way as to meet the data with those related to profitability. The response rate was 65%, which corresponds to 64 correctly completed questionnaires on a sample of 95. Most of the repliers are men aged between 35 and 55 years old, living in proximity of the financial promoting agency.

Performance indicator

To carry out the analysis about customers' value it has been considered important to refer to an indicator of profitability able to express the monetary value generated by the activated relationship between clients and agency. This indicator has been calculated using the items of income and costs directly related to this ratio and the value of assets under management to the promoter for each customer. In the formula, the indicator in question has been therefore determined as follows:

$$\frac{UT+BA}{AUM} \%$$

Legend:

- UT are expenses "Una Tantum" perceived by the promoter in connection with the purchase of a service / financial product;
- BA are the expenses on an annual basis relating to management fees calculated on the entire Aum customer;
- AUM is the value of savings managed by promoters.

This percentage is multiplied by the Aum of each customer which provides the annual amount that each person is charged as an expense to the company financial promotion; the company pays a part of this amount to the promoter, which usually varies from 30% to 60%, depending on the client's ability to self-management by the promoter, his professionalism, his results. In general, the higher is the result of this indicator and the higher is the profit for the promoter and the company.

Service quality assessment

In order to carry out the analysis of the quality of service it has been referred to the SERVQUAL model (Parasuraman, Zeithaml, Berry 1988). This model predicts that the quality of service can be appreciated by carrying out a comparison between expectations and perceptions of 22 items related to the service divided into 5 clusters: reliability, responsiveness, reassurance, empathy and tangible aspects. This model has been subject to several criticisms (Carman 1990; Teas, 1993a, Smith 1995; Favretto 2004); However, it remains one of the tools of analysis of the most widely used reference that is also requesting to define from time to time, being careful to contextualize the model to the specific scope of analysis (Parasuraman, Berry, Zeithaml 1991).

The Customer Satisfaction Index (CSI) is obtained by performing the sum of the gap between perceptions and expectations related to the 22 items. In our analysis it's equal to 0.0379; it can be therefore affirm that customers are generally satisfied with the services provided by the promoters. To fully understand the meaning of the CIS and assess the critical areas it has been analyzed the scores of the various sections that are in Servqual model (Tab. 3).

TAB. 3 – GAP ANALYSIS

			Gap	
Tangible aspects	1	The information materials of the services are complete and updated	0,19	P>A
	2	The promoter has a neat and tidy appearance	0,78	P>A
	3	The office is functional and beautiful at first sight	0,43	P>A
	4	The website is efficient and updated	-0,05	P<A
Reliability	5	Waiting times to meet the promoter are satisfactory	0,09	P>A
	6	In front of a problem the promoter is interested and ready to solve it	0,02	P>A
	7	The Promoter respects the time of appointments	0,13	P>A
	8	For any questions or problems you can always find the promoter	0,05	P>A
	9	When the promoter makes a promise, he always keeps it	-0,28	P<A
Responsive	10	The promoter is always available to attend to his customers' needs	0,00	P>A

	11	When a problem occurs the promoter solves it quickly	-0,13	P<A
	12	The promoter will communicate accurately to their customers when it is executed the service provision	0,16	P>A
	13	The promoter is capable of providing the required financial solution	-0,09	P<A
Reassurance	14	The behavior of the promoter inspires confidence in the customers	0,00	P>A
	15	you feel safe during the service provision	-0,30	P<A
	16	The promoter is always kind and polite	0,30	P>A
	17	The promoter knows well how to meet all his requirements	-0,06	P<A
Empathy	18	The promoter has the skills required to meet all of its needs	0,13	P>A
	19	The promoter understands your specific needs and is able to direct the choice of investment	-0,09	P<A
	20	It's easy to learn how to surf the site to take advantage of online services	-0,30	P<A
	21	The call center is available and efficient	-0,10	P<A
	22	Purpose of the promoter is to serve the interests of the customers in the best possible way	-0,20	P<A

Source: *Our elaboration*

The results show that for some items there is a positive gap between perceptions and expectations while for others the opposite situation is observed.

The next step has been to analyze the ability of each attribute to contribute to the generation of satisfaction / dissatisfaction. For this purpose, it has been calculated the correlation coefficient between the scores of the gap of 5 Servqual dimensions and the values of overall satisfaction of the service aggregated by each customer (Tab. 4).

The data obtained show that all the dimensions considered to be positively related to overall satisfaction. Among these, in particular, tangible aspects and empathy. On the basis of these findings it is possible to suggest to the promoters, and therefore also to the headquarters of Allianz Bank FA, to focus their attention on these two aspects, especially the empathy that contributes significantly to the satisfaction of their customers and that to date is the dimensions of the service that shows a 4 negative gap on 5.

This piece of information can be very useful to corporate management called on to take decisions to improve business performance through an improvement in the overall satisfaction of its customers in respect of the service.

TAB. 4 - GAP ANALYSIS, CRONBACH'S ALPHA AND CORRELATION BETWEEN THE DETERMINANTS OF SERVICE AND TOTAL SATISFACTION

Dimensions	Average gap	Cronbach's Alpha	r
Tangible aspects	0,3359	0,7738	0,799
Reliability	-	0,7609	0,575
Responsiveness	- 0,0156	0,8255	0,696
Reassurance	- 0,0156	0,5896	0,538
Empathy	- 0,1154	0,7024	0,790

Total	0,0379	0,8029
--------------	--------	--------

Source: Our elaboration

Value analysis

The value analysis is developed using a performance indicator represented by the risky financial instruments, the percentage of costs that the client must support related to trading commissions, the operation of the securities account and fees for consultancy; while for some asset management products will have entry fees, exit or switch. In particular, this indicator is higher with the increase of risky assets contained in the portfolio of the client; in the present study it has been calculated an average value of 0.52%. This percentage represents the average profitability that the Agency can boast. In order to understand how the value of customer satisfaction is correlated with the value generated by the promoter it has been analyzed the correlation between the CSI of each individual customer and the relative profitability percentage. Between these two components seems to exist a low positive correlation. The value of the Pearson coefficient is in fact 0.0949, that is not significant (v.tab 5) (p-value 0.4558).

In a second step it has been considered a greater level of detail with the consideration of the components of quality assessment.

TAB. 5 - CORRELATION PROFITABILITY, CSI AND SERVICE QUALITY DIMENSIONS

	Profitability CSI	GAPAspTan	GAPReliab.	GAPResp.	GAPReas.	GAPEmp.	Profitability CSI
Profitability	1.0000						
CSI	0.0949	1.0000					
	0.4558						
GAPAspTan	0.3322*	0.1165	1.0000				
	0.0073	0.3595					
GAPReliability	0.1688	-0.1127	0.2111	1.0000			
	0.1825	0.3753	0.0941				
GAPRespons.	0.4557*	0.0048	0.3964*	0.5349*	1.0000		
	0.0002	0.9699	0.0012	0.0000			
GAPReas.	0.4536*	0.0859	0.2058	0.3720*	0.3170	1.0000	
	0.0002	0.4995	0.1028	0.0025	0.0107		
GAPEmpathy	-0.0190	-0.0515	0.4679*	0.0833	0.1502	-0.0126	1.0000
	0.8814	0.6858	0.0001	0.5130	0.2360	0.9216	

* Significant at $\alpha = .001$ or better level of significance

The data obtained bring out the responsiveness and reassurance whose areas of satisfaction are most related to profitability. It is therefore possible to affirm that the essential component to guarantee a satisfactory return, which is then reflected in a higher value for the company, are the technical knowledge of the sector and the ability to interact with customers. These activities are important in order to understand the customer's needs and therefore to allow effective and highly personalized advisory services. The latter are therefore two constitutive elements of the relationship of trust that are established between the investors and the promoters. It's just the confidence that can affect a greater participation of the individual to equities (which result in greater returns for the promoter) due to a lower subjective probability assigned to the possibility of misconduct by the promoter.

Limitations and final considerations

One of the main limits of this research is the restricted dimension of the sample. Thus, the findings should be verified on a numerically higher sample that becomes more representative of the universe of customers Allianz Bank FA. In addition, it will be useful to consider more years in order to determine whether a possible change in the level of the service quality assessment is associated with a change in profitability. In this regard, it could be useful to consider more items or to refer to an analytical model of service quality that takes the aspects considered important for clients into greater account such as, for example, the Revised SERVQUAL (Sureshchander GS, Rajendran C., Anantharamen RN, 2002). Finally, it could be useful to split the sample into clusters based on some variables such as importance of the client, duration of the relationship with the agency, the search for benefits , etc..

The results obtained show however how the management can acquire useful information for the improvement of the service quality especially about those aspects that seem to be more related to company performances. It therefore assumes a strategic importance and a systematic application of this analysis could be important to maintain a position of competitive advantage.

References

- [1] Anderson E.W., Fornell C. and Lehmann D.R. (1994), "Customer satisfaction, market share and profitability: Findings from Sweden", *Journal of Marketing*, 58 (3), 53-66.
- [2] Anderson S., Pearo LK and Widener SK (2008), "Drivers of service satisfaction: Linking customer satisfaction to the service concept and customer characteristics", *Journal of Service Research*, 10:365-381 DOI: 10.1177/1094670508314575
- [3] Beerli A. Martin J.D. & Quintana A. (2004), A Model of customer loyalty in the Retail Banking Market, *European Journal of Marketing*, Vol. 38, No 1/2, pp.253-275.
- [4] Butcher K., Sparks B. and O'Callaghan F. (2001), "Evaluative and relational influences on service loyalty", *International Journal of Service Industry Management*, Vol.12 No 4, pp.310-327.
- [5] Carman J.M. (1990), Consumer Perceptions of Service Quality: An Assessment of Servqual Dimensions. *Journal of Retailing*, vol.66, n.1, pp.33-55.
- [6] Cronin JJ, Brady MK and Hult GTM (2000), "Assessing the effect of quality, value, and customer satisfaction on consumer behavioral intentions in service environments" *Journal of Retailing*, 76(2): 193-218. DOI 10.1016/S0022-4359(00)00028-2
- [7] Favretto G. (a cura di) (2004), *Il cliente nella sanità. I risultati di un percorso di ricerca*. Milano, Franco Angeli.
- [8] Ghobadian A., Speller S and Jones M., (1994) Service Quality: Concepts and Models, *International Journal of Quality & Reliability Management*, Vol.11 No 9, pp.43-66
- [9] Gronroos C., (2001), *Service Management & Marketing*, Willey publication.
- [10] Nikbin D, Ismail I and Marimuthu M (2012), "The relationship between informational justice, recovery satisfaction and loyalty: the moderating role of failure attributions", *Service Business*, DOI 10.1007/s11628-012-0169-3
- [11] Parasuraman A., Zeithaml, V.A., Berry L.L., 1988, SERVQUAL: a Multiple-Item Scale for measuring consumer perceptions of Service Quality", *Journal of Retailing* 64 (1): 12-40
- [12] Parasuraman A., Berry L.L., Zeithaml V.A. (1991), Refinement and Re-assessment of the SERVQUAL Scale, *Journal of Retailing*, 67 (4): 420-50
- [13] Parasuraman A., Zeithaml, V.A., Berry L.L., (1994a), "Re-assessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Future Research, *Journal of Marketing* 58 (1): 111-24
- [14] Oliver RL (1999), Whence customer loyalty" *Journal of Marketing*, 63:33-44.
- [15] Smith A.M. (1995), Measuring service quality: Is Servqual Now Redundant .. , *Journal of Marketing Management*, vol.11, pp.257-276
- [16] Sureshchander G.S., Rajendran C., Anantharamen R.N.,(2002), The relationship between service quality and Customer Satisfaction – a factor specific approach, *Journal of service Marketing*, vol.16, No.4, pp. 365
- [17] Teas R.K (1993a), Consumer Expectations and the Measurement of Perceived Service Quality, *The Journal of Marketing*, vol.57, n.4, pp.18-34
- [18] Veloutsou C., Daskou S., and Daskou A., (2004), "Are the determinants of bank loyalty brand specific?" *Journal of Financial Services Marketing*, Vol.9 No2, pp.113-125.

The Implementation of Relationship Marketing in Cluster Management

Boguslaw Bembenek, bogdanb@prz.edu.pl
Rzeszow University of Technology, Faculty of Management (Poland)

The Implementation of Relationship Marketing in Cluster Management

Abstract

In the article there was characterised the significance of relationship marketing with particular regard to the need for the implementation of this contemporary concept in the process of cluster management. It was emphasised that from the viewpoint of further development, a strategic challenge for decision-makers in a cluster is the establishment, particularly within this organisation, of partner relationships, which are the sign of their highest level of advancement. It was indicated that passive attitude of cluster decision-makers towards building long-lasting, partner relationships not only in a cluster itself but also in its environment may pose considerable threat for the further existence and the development of this organisation. Simultaneously, there was presented a range of benefits related to the implementation of relationship marketing within a cluster. Taking into consideration holistic attitude towards the issue in question, it was proved that the management of relationships with key stakeholders (e.g. clients, suppliers) is conducive to the development of relational capital of a cluster.

Introduction

Presently, clusters are treated as more or less formalised organisations, created as a result of permanent competition of companies and other entities (universities, R&D institutions, business support institutions, public administration), geographically concentrated and mutually related. Dynamic changes that occur in their environment constantly determine their management process. As a result, cluster decision-makers, willing to provide their organisations with adequate development conditions, seek the sources of a permanent competitive advantage, the advantage that will ensure them the permanence of functioning on the market.

In contemporary socio-economic processes, there was a shift of the focus from unit transactions towards building long-term and permanent relations with stakeholders, which are based on mutual trust. Hence, new market conditions necessitate skilful implementation and realisation of the principles of relationship marketing. It ensues from the nature of this concept of marketing that cluster's ability to create and maintain long-term partnership relations, among others with clients and contractors, basing on trust, become the chance of reinforcing the level of its competitiveness. Owing to the immaterial character of the relations determining relationship capital as well as their number, quality and value, clusters have the opportunity of building and reinforcing their permanent competitive advantage.

The aim of the present paper is to characterise the advantages that ensue from the implementation of the concept of relationship marketing in a cluster, within the scope of the initiation, maintaining and development of long-term relationships based on mutual cooperation with key stakeholders, mainly clients and suppliers. The author, taking into consideration the variety of methods and tools used in this process, emphasises the role of strategies and CRM/SRM systems. The paper has been based on the literature review and author's several-year research experience in the area of the significance of cluster management.

The role of relationship marketing in cluster management

The term *cluster* carries a lot of contents and is semantically ambiguous. Hence, it has no single, commonly applied and accepted definition. The majority of the definitions proposed in economic literature refer to the origin concept by M. Porter, according to which a cluster is a geographically proximate group of interconnected companies suppliers, service providers and associated institutions in a particular field linked by externalities of various types (Porter, 2003, p. 562). A similar approach is presented by S. Rosenfeld, who postulates that cluster is a geographically bounded concentration of similar, related or complementary businesses, with active channels for business transactions, communications and dialogue that share specialized infrastructure, labour markets and services, and that are faced with common opportunities and threats (Rosenfeld, 1997, p. 10). The physical proximity of actors within a cluster provides scope for collaborative endeavour aimed at addressing some areas of purported market failure (Enright and Ffowcs-Williams, 2000, p. 14). The industrial complex is characterised primarily by long-term, stable and predictable relations between the firms in the cluster, involving frequent transactions (Iammarino and McCann, 2006, p. 1022).

S. Rosenfeld argues that, like networks, clusters are composed of firms that co-locate around a variety of common interests or needs (Rosenfeld, 2005, p. 6). Whereas V. Boronenko and Z. Zeibote indicate that cluster is an economic subject rather than a juridical person (participants of a cluster are juridical persons themselves); although participants of a cluster have legal independence, they are economically interrelated; participants of a cluster differ in the type of activity and economic status and participants of a cluster are geographically proximate and work in the same region (Boronenko and Zeibote, 2011, p. 36). In Poland, for instance, clusters function as formalised as well as non-formalised structures. In the case of non-formalised clusters, it is the coordinator who plays the key role in the process of their development (cluster organisation).

The level of cluster development is mainly the result of the decisions undertaken by cluster decision-makers. It is their abilities, knowledge, experience, intuition, visionariness, creativity and leadership, including active undertakings that the pace of building cluster' competitiveness advantage depends on. Cluster management can be defined as a complex, interactive and non-linear process, continuous activity of a cyclical nature, and the organisation and coordination of the activities of a cluster in accordance with certain strategy, in order to achieve clearly defined common objectives (Schretlen and Dervojeda, et al., 2011, p. 3). It is an information and decision-making process orientated towards undertaking rational actions inside and outside a cluster, which are connected to the realisation of planning, organising, motivating and controlling functions. In many publications it have been emphasised that it is impossible to manage a cluster effectively in the conditions of market turbulences without mature partner relationships with key internal and external stakeholders. Simultaneously, it creates a need for the implementation of relationship marketing.

While analysing the concept of relationship marketing, Ch. Grönroos emphasised that sometimes relationship marketing is used more or less as a synonym for direct marketing, database marketing, or for establishing customer clubs, and it becomes just another instrument in the marketing mix toolbox to be used to create transactions. In other situations, relationship marketing is used as a synonym for developing partnerships, alliances, and networks, or as part of marketing communications only (Grönroos, 1999, p. 333). As frequently defined, relationship marketing (Palmatier, 2008, p. 4; Percy and Visvanathan, et al., 2010, p. 2597):

- is the continuous process of identifying, developing, maintaining, and terminating relational exchanges with the purpose of enhancing performance,
- refers to all marketing activities directed toward establishing, developing, and maintaining successful relational exchange,
- is the ongoing process of engaging in cooperative and collaborative activities and programs with immediate and end-user customers to create or enhance mutual economic value at reduced cost,
- is to identify and establish, maintain and enhance relationships with customers and other stakeholders at a profit, so that the objectives of all parties involved are met and that this is done by mutual exchange and fulfilment of promises,
- involves creating, maintaining and achieving strong relationships with customers, employee, supplier, community, and other stakeholders of a business with the goal of delivering long term economic, social and environmental value to all key stakeholders in order to enhance sustainable business financial performance.

According to a commonly known statement, customer retention (a result of relationship marketing) affects the company's profitability, since it is more efficient to maintain an existing customer relationship than create a new one (Payne and Christopher, et al., 1999; Reichheld, 1996). P.H. Andersen concludes that the essence of these activities is to decrease exchange uncertainty and to create customer collaboration and commitment through gradual development and ongoing adjustment of mutual norms and shared routines (Andersen, 2001, p. 168). The overall objective of this type marketing is to facilitate and maintain long-term key stakeholder relationships, which leads to the change in focal points and modifications of the marketing management process. Moreover, a key goal of relationship marketing theory is the identification of key drivers that influence important outcomes for the organisation and a better understanding of the causal relations between these drivers and outcomes (Hennig-Thurau, Gwinner, and Gremler, 2002, p. 231). S. Hollensen and M.O. Opresnik claim that the growing interest in relationship marketing suggests a shift in the nature of marketplace transactions from discrete to relational exchanges, from exchanges between parties with no past history and future prospects to interactions between parties with a history and plans for upcoming interaction (Hollensen and Opresnik, 2010, p. 8). According to H.B. Thorelli relationship marketing is part

of the developing “network paradigm”, which recognizes that global competition occurs increasingly between networks of organizations (Thorelli, 1986, p. 47). In E. Gummesson’s opinion, the concept of relationship marketing is the recognition of a new type of organization which needs a new type of management (Gummesson, 1994, p. 10). As early as in 1997, Ch. Grönroos emphasised that in the future, this marketing paradigm most certainly will be a focal point of marketing research, thus positioning itself as a leading marketing paradigm not only in services marketing and industrial marketing but in most or all marketing situations (Grönroos, 1997, p. 328).

G. Scheer and L. Zallinger explicitly point that clusters are mostly very heterogeneous systems, consisting of a number of member businesses and partners whose information, communication and cooperation has to be structured and organized (Scheer and Zallinger, 2007, p. 30). Owing to the heterogeneity of cluster members (the representatives of various branches: business, science, local authorities, institutions of business support, financial institutions), in economic practice, managing such an internally diversified organisation proves to be an extremely complicated undertaking. It has to be emphasised that the level of risk connected to the functioning of a cluster as an entirety systematically increases as the number of members grows. Thus, it has to be assumed that a part of the newly joined subjects will display an opportunistic attitude and take care only for their individual development. Such an attitude coincides, *inter alia*, with the concept of social loafing by Ringelmann. According to this concept, the more people do together a piece of work; the worse is the result as compared with the sum of single results (the phenomenon of dis-synergy takes place). It ensues from the fact that when people work in a group, they frequently realise the limited possibility of evaluating their effort, therefore the motivation to work declines (Ingham, 1974, p. 371). Even this aspect of the functioning of cluster society should be taken into consideration while designing a system of the relationships that is adequate to a particular cluster, including the system of active motivation of cluster members for the benefit of a solid, partner, jointly responsible and ethical behaviour, which is conducive to the creation of the added value of relationships being established in a cluster.

The economic literature on clusters suggests that the strength and the dynamism of industry clusters are enhanced not only by the presence of supporting institutions and organizations but also by the nature and the extent of relations among firms, universities, and government agencies (Morgan, 2004, p. 49). Operating clusters, in which there is a high level of awareness of particular members within the scope of the affiliation to those structures and active cooperation within the realisation of common projects, constitute an example of a partner organisation, which enables their members to produce the effect of synergy. According to H. Haken, if a group of members can cooperate with each other, they can improve the quantity and quality of living conditions, and achieve the result that a single member cannot obtain (Zhang and Yu, 2013, p. 392). Two significant aspects of partnership that are indicated in the concept of a cluster are: the so-called external aspect, which refers to the relationships of cluster members with the stakeholders that operate in external environment, and internal aspect – that ensues from the characteristics of the relationships inside this organisation, which is connected to attitudes, beliefs and feelings of the partners.

In economic literature partnership is perceived as a relatively firm, long-lasting relationship between subjects, which is based on an open information exchange and mutual trust, engagement as well as sharing common benefits or possible risk. A partnership is an agreement to do something together that will benefit all involved, bringing results that could not be achieved by a single partner operating alone, and reducing duplication of efforts (Brandstetter, De Bruijn, et al., 2006, p. 7). This term describes also: a process that lasts in time; co-participation; being a partner; new quality of relationships with partners or a set of standards and rules. In the article it was assumed that partnership are business relationships, which are based on mutual trust, engagement and responsibility, with two or more independent partners who decided to cooperate closely with a view of making the results of their common work permanent and beneficial to both parties. The reciprocity of business relationships basing on partnership excludes the domination of one or a few partners over the other; it is connected to the equality in decision-making, assuming that all partners have the opportunity to influence the aims, processes and results as well as their assessment.

A model partnership in a cluster ensues not only from subject but also object premises based on common values of the partners. It is related to the activities being realised, which are orientated towards the development of resources and abilities in a cluster. Looking to the future and sharing a common vision constitute a chance for further development of the partners, guarantee of stable development, since it contributes to the elimination of a number of sudden, unfavourable changes, which can pose a threat to further functioning. The incentives for working in a partnership are not limited to monetary benefits because they include specific skills derived from the learning

experience, the greater collective capacity to respond to the problem, and the increased quality of the common solutions (Beckx-Bleumink, Billo, et al., 2003, p. 10).

The development of permanent partner relationships in a cluster requires of a manager: the activity, the abilities to cross socio-political and personal divisions, seeking a common basis of activity, the focus on the present and new goals. It requires particular openness and flexibility, mutual understanding, tolerance, transparency of actions and also determination, which guarantees the cohesion of partnership and prevents the scattering of activities. In order to be effective, a partnership must guarantee equal rights and benefits to the both parties of this relationship; otherwise it would signify the exploitation of one party by the other and would be doomed to failure. Therefore, cluster manager should carefully select the members basing on their “stake” or vested interest in the vision and goals of the partnership (Frank and Smith, 2000, p. 29). A lasting and successful partnership enhances the impact and effectiveness of action through the combined and more efficient use of resources and is distinguished by a strong commitment from each partner (Brandstetter, De Bruijn, et al., 2006, p. 7).

The units that have a significant influence on the quality of a partnership in a cluster are stakeholders themselves, not only those internal (cluster members) but also external ones. The term *stakeholder* in economic literature is also described as: a coalition of various groups of partners, strategic supporters, social contractors, power-holders, those who have stake at the game, the electorate of an organisation (Bryson, 2004, p. 22-25). It describes everybody who can positively or negatively influence the functioning of an organisation. A group of stakeholders has certain expectations as regards a cluster; on the other hand, however, its behaviour is conducive to the achievement of cluster’s objectives. Some types of stakeholder groups include employees, local communities, local elected officials and local and central governments, universities, regulatory agencies, customers, suppliers, financiers, shareowners, and non-governmental organizations (Zollinger, 2009, p. 5). The idea of the “stakeholder model” proposes extending the focus of managers beyond the traditional interest group in order to understand the needs, expectations and values of groups previously perceived to be external to the cluster (Ayuso, Rodriguez, et al., 2007, p. 2).

The theory of stakeholders is concentrated on the nature of relationships that exist between the organisation and its diversified group of stakeholders as well as the results of those relationships. It indicates that the group in question ceases to be perceived only instrumental and becomes an active subject of the market play (Perrini, Tencati, and Pivato, 2006, p. 297). Hence, it constitutes an example of a managerial philosophy, the success of which depends on the level to which an organisation can manage relations, connections and dependencies in relationships with the key stakeholders (Freeman, 2010, p. 74). The basis of those relationships can be: a contract, the regulations in force, more or less formalised rules of cooperation, owing to which those relationships may be of various natures, such as contractual, quasi-contractual, or non-contractual, partner, competitive as well as cooperative. The continuity of the cooperation is, however, to a considerable extent dependent on positive relationships, which are built and strengthened in the process of communication and becoming acquainted with each other. A permanent and efficient cooperation is impossible without an adequate level of trust between partners. The literature on trust suggests that confidence on the part of the trusting party results from the firm belief that the trustworthy party is reliable and has high integrity, which is associated with such qualities as consistency, competence, honesty, fairness, responsibility, helpfulness, and benevolence (Morgan and Hunt, 1994, p. 23). Empirical results received by M. Raskovic and M. Makovec-Brencic (2013, p. 16) show that buyer-supplier relationship competitiveness is mostly driven by interpersonal trust and joint problem solving (both relational determinants), as well as by two kinds of transaction-specific investments, namely investments into people and physical assets.

Due to high turbulence of the environment, the creation of one permanent set of stakeholders is unfeasible. As a result of the changes that occur in the market, new stakeholders continuously appear; they determine cluster’s behaviour and influence its identity (personality) and other attributes. Simultaneously, the changing nature of the processes of globalization, glocalization and regionalization creates the need to manage the relationships with stakeholders naturally. According to J.R. Boatright, to manage stakeholder relations is not necessarily to serve each group’s interest (although this might be the effect), but to consider their interests sufficiently to gain their cooperation. He stresses that stakeholder management assumes that management decision making is the main means by which the benefits of organisation’s wealth are distributed among stakeholders, but these benefits can also be obtained by groups interacting with an organisation in other ways, most notably through the market (Boatright, 2006, p. 107). Likewise, R.E. Freeman, A.C. Wicks and B. Parmar (2004, p. 364) indicate that managers must develop relationships, inspire

their stakeholders, and create communities where everyone strives to give their best to deliver the value the firm promises.

The application of CRM and SRM in the process of cluster development

One of the major tasks of a cluster manager is to build long-lasting relationships, inter alia, with key clients through a skilful adjustment to their constantly changing needs or offering them additional benefits, values. P.F. Drucker (2000, p. 28) states that the starting point for organisation management should not be a product, service, market or the final users of the products but, above all, the values and needs of a client. In the literature on marketing and management it is emphasised that a client should not be a customer but a partner, and a satisfying cooperation with them is one of the fundamental conditions that determines the success of business undertakings. As it results from G.B. Voss and Z.G. Voss's research (1997, p. 293), for cluster managers who really attempt to implement relationship marketing it has the importance of:

- using promotion and direct marketing to create awareness and exploration among potential new customers;
- conducting customer segmentation based on the level of relational commitment;
- maintaining a marketing database that enables frequent, interactive communications with ongoing customers and promotes increased relational commitment;
- developing strong bilateral relationships that are based on a governance structure and shared values.

In relation to the implementation of the concept of relationship marketing, Ch. Grönroos (1999, p. 334) states that to create an understanding of relationship marketing in an organization and to implement a culture of relationship marketing, it may be necessary to replace the term "marketing" with a psychologically more readily accepted term to describe the task of managing the organization's stakeholder relationships.

An integral element of a modern management system, which is conducive to a dynamic cluster development, is CRM (*Customer Relationship Management*). This notion for several years now has been very frequently applied; it is particularly connected to the concept of marketing relationship. In the literature on marketing and management a number of definitions of this term can be encountered. CRM is most often defined as (Choy, Lee and Lo, 2003, p. 88; Shani and Chalasani, 1992, p. 44; Parvatiyar and Sheth, 2001, p. 915):

- a process by which an organisation maximizes customer information in an effort to increase loyalty and retain customers' business over their lifetimes,
- an integrated effort to identify, maintain, and build up a network with individual consumers and to continuously strengthen the network for the mutual benefit of both sides, through interactive, individualized and value-added contacts over a long period of time;
- an organisational approach that seeks to understand and influence customer behaviour through meaningful communication in order to improve customer acquisition, retention, loyalty and profitability;
- a strategy within the organization that aims to satisfy and create a long-term relationship with a client;
- a comprehensive strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the organisation and the customer;
- a business strategy which includes marketing, operations, sales, customer service, human resources, R&D and finance, as well as information technology and the Internet to maximize the profitability of customer interactions;
- it involves the integration of marketing, sales, customer service, and the supply-chain functions of the organization to achieve greater efficiency and effectiveness in delivering customer value.

The above mentioned definitions indicate that CRM is a complex term that involves several aspects within the organization and it cannot be reduced to only one of those aspects (Mendoza, Marius, et al., 2007, p. 914). Basing on the literature review it can be concluded that the main component of any CRM concept/strategy entails the facilitation of a two-way interaction between individual customers and an organisation (external communications) concerning every aspect of the relationship, enabling the organisation to adjust its strategy, including product design,

customer service and channel preferences (Viljoen, Bennett, et al., 2005, p. 112). CRM is a concept that supports management of a contemporary organisation (e.g. a cluster), a concept which is based on a perfect acquaintance with clients and which ensues from the knowledge acquired from them. Relationship marketing enables managers to discover who their clients really are, how they behave and what their preferences and so-far unfulfilled needs are.

Understanding the needs of customers and offering value – the added services are recognized as factors that determine the success or failure of companies (King and Burgess, 2008, p. 421). Thus, this strategy may be conducive to the development of synergy effect as its properly implemented tools allow cluster decision-makers to create a complex system of information on the clients, provide more comprehensive and excellent service.

CRM is defined not only as a business philosophy, a business strategy, a business process but also as a technological tool. In this case, CRM is a computer application that supports the process of gathering and storing data, and subsequently making decision concerning the contact with clients. The IT CRM system is a tool which enables the solution of the current problems with customer service and strengthens the competitive position of the organisation in the market. However, the application is only a tool that facilitates management and on no account can it replace the basic consumer-oriented activities. In the literature on relationship marketing it is frequently indicated that CRM needs to be seen as more than just technology with the technology being regarded as the enabler of the CRM strategy (Xu, Yen, Lin, and Chou, 2002, p. 445).

A contemporary client, having the status of a key stakeholder, is more and more demanding, aware of their rights. They frequently participate in designing the product they buy as a prosumer (Terblanche, 2014, p. 1). They constantly broaden their knowledge and are capable of analysing their achievements and failures, ready to provide entrepreneurs with more pieces of strategic information on their behaviour. According to V. Ramaswamy (2008, p. 9), customers are now informed, connected and empowered on a scale larger than ever before; due to Internet technologies they have the access to new tools that enable them to co-create together with firms. Contemporary clients are: more competent – they are more self-assured and know how to use their experience and the knowledge they acquire. They have more analytical approach – clients' decisions concerning purchase are more related to the key business strategies. Hence, a client should be treated as a partner with individual standards, values, philosophy, lifestyle, needs and behaviour.

CRM can help organizations manage customer interactions more effectively (King and Burgess, 2008, p. 421). The fundamental goal of CRM is therefore to create greater customer loyalty, sales and satisfaction, and to provide a rich source of customer knowledge that can be used to gain a deeper understanding of customers in order to facilitate the provision of a fully personalised service (Viljoen, Bennett, et al., 2005, p. 111). Moreover, the main objectives of introducing CRM in contemporary organisations are: earning client's trust, obtaining information about clients and their buying habits, coordinating the process of gaining and using the information about a client, being distinguished from the competition, decreasing the costs relating to client service, shortening the time of client service, increasing the selling possibilities, enhancing employees' effectiveness within the scope of client service.

Owing to the fact that each cluster is unique and possess an individual system of resources and information flow, the process of CRM implementation can encounter numerous barriers. Certain barriers can result from the attitude of the employees, mainly due to the fact that CRM constitute: additional tool of controlling employees, additional work connected with entering data into the system, the need for sharing knowledge on the clients, the necessity of systematic and organised work. Hence, to successfully implement the concept of CRM into clusters there is a need for: a change of the present practice philosophy, transferring knowledge on the benefits of work with such a system. The implementation of CRM is not the objective itself; however it constitutes a means for the realisation of the aims determined beforehand. An important issue connected to the implementation of CRM system in a cluster is the choice of an adequate technology, which will take into consideration not only the current requirements but also enable its further development in the future. Admittedly, theoretically CRM without technology is acceptable, mainly on the basis of a good strategy, internal procedures, systems or employees' engagement for the benefit of client relationship management, however, ready applications based on relationship databases enable far more successful and effective client service. As it has been already proved in the present article, technologies are only a means to the objective and do not constitute a solution per se.

The core of relationship marketing is the development of positive relations not only with clients but also with suppliers. This concept assumes that undertaking such actions that aim to create firm, effective connections, as regards

the costs, with key clients and suppliers as the links of a value chain that leads to mutual benefits (Croxtton, Garcia-Dastugue, et al., 2001, p. 30). Within the scope of the supply chain as well as within a chain of an integrated cluster, the relationships between a supplier and a receiver should be based on partnership, which is considered the fundamental condition for the creation and development of those value chains. Owing to the fact that more and more number of the factors influence a supply chain, which makes it more and more complex and requires efficient management, the demand for efficient tools like *Supplier Relationship Management* (SRM) or Supply Management in business clusters is constantly increasing. SRM is defined as (Mettler and Rohner, 2009, p. 59; Choy, Lee and Lo, 2003, p. 87; Herrmann and Hodgson, 2001, p. 1):

- a comprehensive approach to managing an organization's interactions with the firms that supply the products and services it uses;
- the process that defines how a company interacts with its suppliers,
- the sourcing policy-based design of strategic and operational procurement processes as well as the configuration of the supplier management,
- a strategic, enterprise-wide, long-term, multi-functional, dynamic approach to selecting suppliers of goods and services and managing them and the whole value network from raw materials to final customer use and disposal to continually reduce total ownership costs, manage risks, and improve performance (quality, responsiveness, reliability, and flexibility),
- a process involved in managing preferred suppliers and finding new ones whilst reducing costs, making procurement predictable and repeatable, pooling buyer experience and extracting the benefits of supplier partnerships,
- new category of supply chain applications, contributes to the supplier selection and thus increases the competitive advantage of the manufacturer through three primary mechanisms: support of improved business processes across the supply chain, a next-generation architecture that can handle multi-enterprise processes, and facilitation of rapid product cycles and new product introduction.

This type of process/tool should be used in a business cluster as it enhances effective communication between procurement management staff in a cluster, which helps in the implementation of ethical business practices. Additionally, the Supplier Relationship Management is a key component, which pertains to the entire supply chain. It involves the following sequential practices (Chenoweth, Moore, et al., 2012, p. 7):

- conducting spending, market, and risk analyses and developing supply strategies,
- rationalizing the supply base and consolidating contracts,
- establishing long-term relationships with best suppliers,
- helping key suppliers improve quality, cost, and performance,
- integrating key suppliers into the organization.

The implementation of a concept of such type is significant from the viewpoint of cluster's development, particularly in the units where there can be observed considerable dependence on the network of suppliers, and complex supply channels. The major business benefits that ensue from its implementation are: the identification of the key suppliers and the creation of an effective strategy of managing the relations with them, streamlining and making the processes between a cluster and its suppliers more effective, minimization of the risk of breaking a supply chain, the reduction of transaction costs, optimization of resources of the entire supply chain, strengthening the competitiveness of a cluster on the basis of partner relationships with suppliers (Lambert and Stock, 2001, p. 510; Momiwand and Shahin, 2012, p. 761).

While choosing and creating a certain type of relations between the links of supply chain, first of all, what has to be understood is the significance of the relations occurring between the features of purchasing processes and the need for a constant cooperation and the level of reciprocal dependency of the contractors. The realisation of relationship marketing within a value chain of a cluster is conducive to the strengthening of competitiveness of its participants, facilitates the maintenance of long-lasting ties basing on trust, the creation of friendly environment for the functioning of a cluster. It is also conducive to: the stabilisation and consolidation of the relations between all of its links or more complete fulfilment of the final needs of key stakeholders (mainly clients and suppliers), new contracts, taking advantage of partner's expertise, the increase in the quality of products and services, the reduction of reserves and the number of suppliers, the protection of supplies, shortening the time of the development of a new

product, the share of the risk connected to a new product and innovation process, the creation of a proper climate for new national as well as international investments. According to many researchers, relational benefits include confidence benefits, which refer to perceptions of reduced anxiety and comfort in knowing what to expect in the encountered service; social benefits, which pertain to the emotional part of the relationship and are characterized by personal recognition of customers by employees, the customer's own familiarity with employees, and the creation of friendships between customers and employees; and special treatment benefits, which take the form of relational consumers receiving price breaks, faster service, or individualized additional services (Hennig-Thurau, Gwinner, and Gremler, 2002, p. 234).

Relational capital as a strategic source of a business cluster

Relational capital as a result of building partner relationships with key stakeholders, including clients and suppliers, is a significant component of intellectual capital of business clusters. It is commonly agreed that intellectual capital, which is comprised of three elements: human capital, structural capital and relational capital. It is calculated by the difference, between the market value of the company and their accounting value (Hormiga, Batista-Canino, Sanchez-Medina, 2011a, p. 620). The term intellectual capital is defined in the literature (Hormiga, Batista-Canino, Sanchez-Medina, 2011a, p. 620) as:

- the knowledge that can be converted into profit in the future, which is made up of: ideas, inventions, technologies, software, designs, and procedures;
- the combination of the immaterial or intangible assets of an organization which, although they do not appear in the traditional accounting records, are directly or indirectly controlled by the organisation and which generate or will generate a future value for this organization and on which a sustained competitive advantage can be built.

Skilful management of intellectual capital as well as the care for its gradual development in a cluster can lead to the strengthening of competitiveness of this organisation. It has to be emphasised that the increase in the value of intellectual capital frequently is a result of the increase in the value of intra- and interorganisational relationships.

Relational capital is based on the idea that clusters are considered not to be isolated systems but systems that are, to a great extent, dependent on their relations with their environment (Hormiga, Batista-Canino, Sanchez-Medina, 2011b, p. 74). R. Capello and A. Faggian (2005, p. 75) define this type of capital as market relationships, power relationships and cooperation – established between firms, institutions and people that stem from a strong sense of belonging and a highly developed capacity of cooperation, typical of culturally similar people and institutions. Moreover relational capital is an intangible asset that is based on the developing, maintaining and nurturing close interactions between internal and external partners, and high quality relationship with any organization, individual or a group that influences or impacts the business, including: customers, suppliers, employees, government, partners, competitors and any other stakeholder (Ogundipe, 2012, p. 208). Owing to the fact that each stakeholder group has its own expectations, needs and values, and that key stakeholders need to be identified in line with organisational values, we can assume that relational capital of a business cluster is the knowledge embedded in relationships with customers, suppliers, industry associations or any other key stakeholder that influences cluster's life (Rosario-Cabrita and Bontis, 2008, p. 220). This capital comprises such elements as, for instance: brand, trademark, and value of the relationships with key stakeholders and their loyalty, distribution channel, profitable contracts with key stakeholders.

Particularly in the conditions of a turbulent environment, the significance of relational strategy increases, which is a planned way of operating that bases on intangible resources – relationships. According to M. Bratnicki (2001, p. 91), the volume of the possessed relational capital becomes an important carrier of organisation's values, especially in the conditions of the competitiveness that is based on knowledge, where the participation of a certain organisation in creating, popularising and using knowledge that has strategic significance, is an issue that is essential for its survival. S.E. Ogundipe (2012, p. 212) argues that cluster performance can be boosted if each member within a cluster can exploit the benefit in relational capital mix through team building, sharing organizational mission and values, and trust with customers. What is significant within this scope is the focus on relationships with key stakeholders, and particularly on the creation of a sense of community, on seeking active platforms of cooperation and internalization of values, identification of the types of ties, assessment of the effectiveness of undertaken actions.

Basing on the results of the literature review it can be stated that relational capital of the cluster can reduce organizational costs in many different ways (Tumwine, Kamukama, and Ntayi, 2012, p. 803; Youndt, Subramaniam, and Snell, 2004, p. 336; De Clerq and Sapienza, 2006, p. 326):

- the knowledge which derived from employees, customers and suppliers and other business agents may result in the process of innovations that eliminate bottlenecks, increase output, reduce variation and etc.,
- by increasing an organization's information processing capacity,
- facilitates both efficient exchange of information by reducing the need for time consuming and costly monitoring and the effective exchange of information by removing the perceived need to veil or hide sensitive information,
- the higher level of relational capital has impact on better planning, problem solving and troubleshooting, all of which, most likely, increase production and service delivery efficiency and thereby, reduce organizational costs,
- affects customer satisfaction by increasing the value that is offered at the market,
- is instrumental in enhancing customer benefits by helping to increase the quality and flexibility, creating value for the customers through the production and service delivery process innovations.

To I.H. Gordon's opinion (2001, p. 15), partner relationships with the environment contribute to the creation of new possibilities of increasing incomes as well as profit or minimising the risk connected to running a business. Thus, as the advantages of relational capital one can indicate its positive influence on: rationalisation of the management process, the effectiveness of learning process; the development of a specialist standards serving the transfer of knowledge and information; the creation of more effective knowledge exchange between partners, removing the necessity of protecting it against the opportunism of the other party; permanent establishment of reciprocal credibility of the partners.

The research shows that relational capital not only integrates the knowledge about relationships with the organization's external partners such as customers, suppliers and local communities but also stabilizes the environment and makes it accessible to the organization (Stewart, 1997, p. 25; Gates and Langevin, 2010, p. 112). Cluster's relational capital, therefore, determines its capability of establishing and maintaining beneficial relationships with the subjects in the environment and understanding the existing regularities, which shape the determinants of the activities undertaken by this organisation.

Conclusion

Taking into consideration a great turbulence of the environment, and the increasing demands put forward to clusters as regards their development, it can be stated that building relational capital presently becomes not only a choice but a necessity. Thus, it is impossible to efficiently create a network of cooperation without professional implementation of the assumptions of relationship marketing.

Partnership, as a dynamic process that lasts in time, a process created and shaped by the interactions of the partners is inscribed in the nature of a business cluster. As a fundamental feature of clusters, it constitutes a dense network of relations between particular partners, a closed structure, which gives a rational basis for mutual trust and cooperation, in which all partners are mutually related. Such a form of the institutionalisation of relationships simultaneously constitutes a necessary condition for the maintenance of the present standards and the one possible to enforce. In the case that a member of such an organisation acts against a current standard, remaining partners can quickly learn about that and make decision concerning the punishment (e.g. through ending further cooperation).

Building relationships, especially those partner relationships in a cluster, is a complex, multistage process, which requires considerable engagement from a leader, cluster manager, as well as the members of this organisation. It has to be emphasised that what is conducive to the building, development and the maintenance of permanent relations with internal and external stakeholders of a cluster is know-how of relationship marketing. This philosophy, which determines new quality of creating and sharing the value of relationships with cluster stakeholders, initially was limited in its assumptions only to the group of clients. Present, broader comprehension of relationship marketing emphasises the significance of a diverse group of key stakeholders in the process of the identification of effective and successful ways of building competitiveness. Thus, cluster decision-makers, focusing on the creation of desirable relationships with this group of stakeholders, are forced by the environment to form a unique system of partnership, a

chain of mutual connection of the subjects, every of which has its own characteristics, different preferences, needs and objectives. A chain of partnership, built in internal and external environment of a cluster, contributes to the fulfilment of the development gap in this organisation, not only operational gap, which ensues from the insufficient use of the possessed possibilities connected to the resources, but also a strategic gap, which results from the fact that the possibilities created by the environment are not used. A result of building such a partnership chain in a cluster is relational capital. It gives access to new knowledge, new markets and new development possibilities to cluster participants. Therefore, it directly influences the creation of cluster values.

However, what is significant to make a cluster able to develop on the basis of its relational capital is to implement the assumptions of relationship marketing into operational and strategic cluster management. It requires a number of complex and consistent activities, which permeate every area, function and process in a cluster. For this purpose, it is necessary to develop such an organisational culture of a cluster that will be orientated towards the creation and promotion of the development of partner relationships in the internal and external environment.

References

- [1] Andersen, P.H. (2001). Relationship development and marketing communication: an integrative model. *Journal of Business & Industrial Marketing*, vol. 16, no. 3, p. 168.
- [2] Ayuso, S., Rodriguez, M.A., Garcia, R., Arino, M.A. (2007). Maximizing stakeholders' interests: an empirical analysis of the stakeholder approach to corporate governance. *Working Paper*, University of Navarra, no. 670, p. 2.
- [3] Beckx-Bleumink, M., Billo, N., Blanc, L., Bosman, M., Espinal, M., Egeaga, S., Goede, H., Grzemska, M., Maaren, P., O'Connell, T., Raviglione, M., Sarkar, S. (2003). *The power of partnership*. World Health Organization, Geneva, p. 10.
- [4] Boatright, J.R. (2006). What's wrong and what's right with stakeholder management. *Journal of Private Enterprise*, vol. XXI, no. 2, p. 107.
- [5] Boronenko, V., Zeibote, Z. (2011). The potential of cluster development and the role of cluster support policies in Latvia. *Economic Annals*, no. 191, vol. LVI, pp. 35-67.
- [6] Brandstetter, R., De Bruijn, H., Byrne, M., Deslauriers, H., Forschner, M., Machacova, J., Orologa, A., Scoppetta, A. (2006). *Successful partnerships a guide*. OECD LEED, Forum on Partnerships and Local Governance at ZSI, Vienna, p. 7.
- [7] Bratnicki, M. (2001). *Dylematy i pułapki współczesnego zarządzania*. Wyd. Gnome, Katowice, p. 91.
- [8] Bryson, J.M. (2004). What to do when stakeholders matter. *Public Management Review*, vol. 6, issue 1, pp. 22-25.
- [9] Capello, R., Faggian, A. (2005). Collective learning and relational capital in local innovation processes. *Regional Studies*, vol. 39, issue 1, p. 75.
- [10] Chenoweth, M.E., Moore, N.Y., Cox, A.G., Mele, J.D., Sollinger, J.M. (2012). *Best practices in supplier relationship management and their early implementation in the Air Force materiel command*. RAND Corporation, Santa Monica, p. 7.
- [11] Choy, K.L., Lee, W.B., Lo, V. (2003). Design of a case based intelligent supplier relationship management system – the integration of supplier rating system and product coding system. *Expert Systems with Applications*, vol. 25, p. 88.
- [12] Croxton, K.L., Garcia-Dastugue, S.J., Lambert, D.M., Rogers, D.S. (2001). The supply chain management process. *The International Journal of Logistics Management*, vol. 12, no. 2, p. 30.
- [13] De Clerq, D., Sapienza, H.J. (2006). Effects of relational capital and commitment on venture capitalists' perception of portfolio company performance. *Journal of Business Venturing*, vol. 21, issue 3, pp. 326-347.
- [14] Drucker, P.F. (2000). *Zarządzanie w XXI wieku*. Muza SA, Warszawa, p. 28.
- [15] Enright, M.J., Ffowcs-Williams, I. (2000). *Local partnership, clusters and SME globalization*. Workshop 2. Conference for Ministers responsible for SMEs and Industry Ministers, OECD, Bologna, p. 14.
- [16] Frank, F., Smith, A. (2000). *The partnership handbook*. Labour Market Learning and Development Unit, Hull, p. 29.
- [17] Freeman, R.E. (2010). *Strategic management. a stakeholder approach*. Cambridge University Press, New York, p. 74.
- [18] Freeman, R.E., Wicks, A.C., Parmar, B. (2004). Stakeholder theory and "the corporate objective revisited". *Organization Science*, vol. 15, no. 3, p. 364.
- [19] Gates, S., Langevin, P. (2010). Human capital measures, strategy, and performance: HR managers' perceptions. *Accounting, Auditing & Accountability Journal*, vol. 23, issue 1, p. 112.
- [20] Gordon, I.H. (2001). *Relacje z klientem. Marketing partnerski*. PWE, Warszawa, p. 15.
- [21] Grönroos, Ch. (1997). Keynote paper: From marketing mix to relationship marketing – towards a paradigm shift in marketing. *Management Decision*, vol. 35, issue. 4, p. 328.
- [22] Grönroos, Ch. (1999). Relationship marketing: challenges for the organization. *Journal of Business Research*, vol. 46, p. 333.

- [23] Gummesson, E. (1994). Making relationship marketing operational. *International Journal of Service Industry Management*, vol. 5, no. 5, p. 10.
- [24] Hennig-Thurau, T., Gwinner, K.P., Gremler, D.D. (2002). Understanding relationship marketing outcomes. An integration of relational benefits and relationship quality. *Journal of Service Research*, vol. 4, no. 3, p. 231.
- [25] Herrmann, J., Hodgson, B. (2001). *SRM: leveraging the supply base for competitive advantage*. Proceedings of the SMTA International Conference, Chicago, Illinois, p. 1.
- [26] Hollensen, S., Opresnik, M.O. (2010). *Marketing. A relationship perspective*. Verlag Franz Vahlen, München, p. 8.
- [27] Hormiga, E., Batista-Canino, R., Sanchez-Medina, A. (2011a). The impact of relational capital on the success of new business start-ups. *Journal of Small Business Management*, vol. 49, no. 4, p. 620.
- [28] Hormiga, E., Batista-Canino, R., Sanchez-Medina, A. (2011b). The role of intellectual capital in the success of new ventures. *International Entrepreneurship Management Journal*, vol. 7, issue 1, p. 74.
- [29] Iammarino, S., McCann, Ph. (2006). The structure and evolution of industrial clusters: transactions, technology and knowledge spillovers. *Research Policy*, vol. 35, p. 1022.
- [30] [30] Ingham, A.G. (1974). The Ringelmann effect: studies of group size and group performance. *Journal of Experimental Social Psychology*, vol. 10, issue 4, p. 371.
- [31] King, S.F., Burgess, T.F. (2008). Understanding success and failure in customer relationship management. *Industrial Marketing Management*, vol. 37, issue 4, p. 421.
- [32] Lambert, D.M., Stock, J.R. (2001). *Strategic logistics management*. McGraw-Hill, New York, p. 510-512.
- [33] Mendoza, L.E., Marius, A., Perez, M., Griman, A.C. (2007). Critical success factors for a customer relationship management strategy. *Information and Software Technology*, vol. 49, issue 8, p. 914.
- [34] Mettler, T., Rohner, P. (2009). Supplier relationship management: a case study in the context of health care. *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 4, issue 3, p. 59-60.
- [35] Momiwand, A., Shahin, A. (2012). Lead time improvement by supplier relationship management with a case study in Pompaj company. *World Applied Sciences Journal*, vol. 16, no. 5, p. 761.
- [36] [36] Morgan, J.Q. (2004, Spring/Summer). Clusters and competitive advantage: finding a niche in the New Economy. *Popular Government*, p. 49.
- [37] Morgan, R.M., Hunt, S.D. (1994). The commitment – trust theory of relationship marketing. *Journal of Marketing*, vol. 58, no. 3, p. 23.
- [38] Ogundipe, S.E. (2012). Business relational capital and firm performance in south western Nigerian small scale enterprise clusters. *European Journal of Business and Management*, vol. 4, no. 17, p. 208.
- [39] Palmatier, R.W. (2008). *Relationship marketing*. Marketing Science Institute, Cambridge, Massachusetts, p. 4.
- [40] Parvatiyar, A., Sheth, J.N. (2001). Customer relationship management: emerging practice, process, and discipline. *Journal of Economic and Social Research*, vol. 3, no. 2, p. 5.
- [41] Payne, A., Christopher, M., Clark, M., Peck, H. (1999). *Relationship marketing for competitive advantage*. Butterworth Heinemann, Oxford 1999.
- [42] Percy, W.S., Visvanathan, N., Watson, Ch. (2010). Relationship marketing: strategic and tactical challenges for SMEs. *African Journal of Business Management*, vol. 4, no. 13, p. 2597.
- [43] Perrini, F., Tencati, A., Pivato, G. (2006). Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems. *Business Strategy and the Environment*, vol. 15, p. 297-298.
- [44] Porter, M.E. (2003). The economic performance of regions. *Regional Studies*, vol. 37, p. 562.
- [45] Ramaswamy, V. (2008). Co-creating value through customers' experienced. The Nike case. *Strategy and Leadership*, vol. 36, no. 5, p. 9-14.
- [46] Raskovic, M., Makovec-Brencic, M. (2013). Buyer-supplier relationships and the resource-advantage perspective: an illustrative example of relational and transactional drivers of competitiveness. *Journal of Competitiveness*, vol. 5, issue 1, p. 16.
- [47] Reichheld, F. (1996). *The loyalty effect*. Harvard Business School Press, Boston.

- [48] Rosario-Cabrita, M., Bontis, N. (2008). Intellectual capital and business performance in the Portuguese banking industry. *International Journal of Technology Management*, vol. 43, no. 1-3, p. 220.
- [49] Rosenfeld, S. (1997). Bringing business clusters into the mainstream of economic development. *European Planning Studies*, vol. 5, no. 1, p. 10.
- [50] Rosenfeld, S. (2005). Industry clusters: business choice, policy outcome, or branding strategy? *Journal of New Business Ideas and Trends*, vol. 3, no. 2, p. 6.
- [51] Scheer, G., Zallinger, L. (2007). *Cluster management – a practical guide. Part A: overview*. Economic Development and Employment Division, Economic Policy and Private Sector Development Section, Deutsche Gesellschaft für Technische Zusammenarbeit, Eschborn, p. 30.
- [52] Schretlen, J.H., Dervojeda, K., Jansen, W., Schaffmeister, B. (2011). *Uncovering excellence in cluster management*. PWC, Amsterdam, p. 3.
- [53] Shani, D., Chalasani, S. (1992). Exploiting niches using relationship marketing. *Journal of Consumer Marketing*, vol. 9, no. 3, p. 44.
- [54] Stewart, T. (1997). *Intellectual capital: the New health of nations*. Doubleday Dell Publishing, New York, p. 25.
- [55] Terblanche, N. (2014). Some theoretical perspectives of co-creation and co-production of value by customers. *Acta Commercii*, vol. 14, no. 2, p. 1.
- [56] Thorelli, H.B. (1986). Networks: between markets and hierarchies. *Strategic Management Journal*, no. 7, p. 47.
- [57] Tumwine, S., Kamukama, N., Ntayi, J.N. (2012). Relational capital and performance of tea manufacturing firms. *African Journal of Business Management*, vol. 6, no. 3, p. 803.
- [58] Viljoen, M., Bennett, J.A., Berndt, A.D., Van Zyl, C.R. (2005). The use of technology in customer relationship management (CRM). *Acta Commercii*, vol. 5, no. 1, p. 112.
- [59] Voss, G.B., Voss, Z.G. (1997). Implementing a relationship marketing program: a case study and managerial implications. *The Journal of Services Marketing*, vol. 11, no. 4, p. 293.
- [60] Xu, Y., Yen, D.C., Lin, B., Chou, D.C. (2002). Adopting customer relationship management technology. *Industrial Management & Data Systems*, vol. 102, no. 8, p. 445.
- [61] Youndt, M.A., Subramaniam, M., Snell, S.A. (2004). Intellectual capital profiles: an examination of investments and returns. *Journal of Management Studies*, vol. 41, issue 2, p. 336.
- [62] Zhang, H., Yu, S. (2013). *Mechanism analysis and model construction of Cluster enterprises' synergy innovation*. 6th International Conference on Information Management, Innovation Management and Industrial Engineering, p. 392.
- [63] Zollinger, P. (2009). *Stakeholder engagement and the board: integrating Best governance practices*. Global Corporate Governance Forum, Focus 8, International Finance Corporation, Washington, p. 5.

Barriers for effective International Relationship Marketing in Emerging Markets

Paola Signori, paola.signori@univr.it

Federica Bressan, federica.bressan@univr.it

Department of Business Administration, University of Verona, Italy

Barriers for effective International Relationship Marketing in Emerging Markets

Abstract

Many previous studies highlighted the importance of the relational aspects in firms' internationalization processes to increase organizational performance. However, critical aspects of International Relationship Marketing in Emerging Markets (IRMEM) are not yet fully investigated. Many internationalized companies still have difficulties in managing relationships with distant stakeholders, with different values and cultures. The purpose of this paper is to explore knots, difficulties, barriers, that are restraining potential relationship capabilities of companies. Then, a deep understanding of the causes of those weaknesses may be helpful to suggest how to react to critical situations.

The first research phase, an exploratory CAWI survey, was conducted to understand emerging market relationship orientations in a particular industry: kitchen furniture industry is global, characterized by high levels of customization and service in global markets, where intangible aspects of relationships are always considered fundamentals. All members of the main Italian furniture association (56 companies) have been invited to fulfill a questionnaire, with a 70% response rate. A second qualitative research phase relied upon in-depth interviews, with twelve top managers from eight companies of the first sample (digitally recorded and transcribed). Interpreting overall data with cross-case and cause-related effect analysis applying Ishikawa's fishbone technique, a useful tool for identifying barriers to success, this research suggests some IRMEM theoretical drivers.

Research findings highlight main knots to effective international relationship marketing, in particular in emerging markets, and connect those barriers to potential causes. A clear identification of cause-related effects can drive practitioners to improve their relationship skills and avoid critical problems.

Keywords: International Relationship marketing, emerging markets, barriers, intangibles

Introduction

This paper conceptually links three "relatively" old and very important research streams: relationship marketing (RM), international relationship marketing (IRM) and internationalization in emerging market (EM).

Despite the increasing importance of international marketing, insufficient attention is being paid in the past to exploring and theorizing relationship marketing in international contexts (Samiee and Walters, 2003). Moreover, extant literature reviews in Relationship Marketing indicate significant research progress, a conceptual framework explaining RM in an internationalized context is still lacking (Khojastehpour and Johns, 2014).

Previous researchers highlighted the importance of the relational aspects in firms' internationalization processes to increase organizational performance, and, at the same time, they noticed that many internationalized companies still have difficulties in managing relationships with distant stakeholders, with different values and cultures. In particular, previous studies underlined that distortions in the information transmission process, associated with inter firm psychic distance, can increase the complexity and confusion of managerial decision-making, which reduces operational efficiencies and impedes the emergence of trust (Katsikeas, Skarmeas and Bello, 2009). Under this perspective, emerging market relationships present larger physical and cultural distance and are characterized by peculiar critical aspects (Bianchi and Saleh, 2011), which are not yet fully investigated and integrated into a International Relationship Marketing in Emerging Markets (IRMEM) theoretical framework (Bressan and Signori, 2014a).

This paper strives to explore knots, difficulties, barriers, that are restraining potential relationship capabilities of companies, when dealing with emerging market partners. More, the goal is to understand related causes in order to help companies to find solutions to those critical relational problems.

Literature perspective

Within the relational approach to marketing, different Schools offered important contributions, such as the North-American School (Berry, 1995; Jackson, 1985; Morgan and Hunt, 1994; Evans and Laskin, 1994; Sheth, 2007), the Nordic School (Gummesson, Lehtinen and Grönroos, 1997) and the Anglo-Australian School (Christopher, Payne and

Ballantyne, 2002). Main authors of these Schools tried to develop the concept that a unidirectional relation, with only one kind of stakeholder, is not sustainable, and that it is strategically important to develop close relationships with a multiplicity of stakeholders (such as customer, suppliers, internal customers, institutions and intermediaries), in order to create a higher value for the final customer (Morgan and Hunt, 1994; Berry, 1995) and eventually compete between groups of organizations and stakeholders (Hunt, 1997). The complexity and the interconnection of different markets are leading to an increasing attention and affirmation of this broader view of marketing with stakeholders inclusion (Ballantyne, 2009).

The Relationship Marketing approach is focused on a long-term, customer value relationship quality (Grönroos, 1996), where managing network, relations and interactions is important to be successful (Gummesson, 1994). Dyadic relationships are based in particular on a long on-going process (Dwyer, Schurr and Oh, 1987), where relationship quality has emerged as a focal point by which a company can succeed in a competitive environment (Bejou, Wray, and Ingram, 1996). This is particularly evident in more mature markets, when the customers do not only get their satisfaction from product or service quality, and they require a relationship quality (Crosby, Evans and Cowles, 1990).

Some studies on Relationship Marketing demonstrated that, despite the strategic importance accorded to relations (Hewett, Money and Sharma, 2006; Styles, Patterson and Ahmed, 2008; Ballantyne, 2009; Bianchi and Saleh, 2011), companies still have difficulty in managing relationships with different stakeholders, focusing more on a dyadic buyer-seller relationship (Egan, 2006; O'Toole and Donaldson, 2002; Zineldin and Philipson, 2007). The internationalization process of a company might impact negatively in this balance, due to the fact that, while companies may reconfigure their product and promotion for a foreign market, failure to adapt methods of relationship may bring about a marketing failure (Palmer, 1997).

Recently, international attention has been on BRICs (Brazil, Russia, India and China) and emerging markets, despite the lack of researches on relational impacts of geographic and cultural distance (Brush and Rexha, 2007), in particular with emerging market partners and in the introduction stage of the relationship. BRICs are not only geographically distant from the country of origin of these companies, but they also have peculiar characteristics that both influence relational behavior and the international relationship marketing approach (Brush and Rexha, 2007; Bianchi and Saleh, 2011). The cultural aspect represents one of the key variables that can influence the creation of a relationship (Franke, Hofstede and Bond, 1991; Chandler and Graham, 2010) especially in emerging markets, characterized by a large physical and cultural distance (Phan, Styles and Patterson, 2005; Shapiro, Ozanne and Saatcioglu, 2008; Bianchi and Saleh, 2011). In particular, the psychic distance should be considered as a key aspect in preparing the company to deal with distant stakeholders (Conway and Swift, 2000; Bressan and Signori, 2014b).

Despite IRM theories stressed the importance of having a structured network orientation as powerful tool to gain success in distant markets, empirical results showed that companies initially act with traditional decision making processes and are not fully prepared to face those complex new environments (Bressan and Signori, 2014c). In summary, an International Relationship Marketing in Emerging Markets (IRMEM) theoretical framework could be build through analogies among related theoretical constructs, but needs its own researches to investigate peculiarities of a context where past main theories may not apply.

Research goals and methodology

The purpose of this research was to explore knots, barriers and difficulties that are restraining potential relationship capabilities of western companies when interacting with emerging market partners. Then, a deep understanding of the causes of those weaknesses may be helpful to suggest how to avoid critical situations.

As above discussed, a main research gap drove this study to adapt international relationship marketing concept into an emerging market context. The main research goal was then to find which problems are limiting a successful international relationship marketing in emerging market. Three research questions (RQ) were defined:

- Which are the main barriers that western companies are facing, when entering in new emerging markets (RQ₁)?
- Which are the main difficulties that western companies are perceiving, when dealing with emerging market partners (RQ₂)?

- Which are the causes of main relational barriers or difficulties perceived by western companies internationalized in emerging markets (RQ₃)?

In order to pursue those goals and find answers to the three research questions, this research has been based on a mixed methodology, as this approach provide richer understanding and more robust explanations of complex and dynamic phenomena (Golicic and Davis, 2012; Mangan, Lalwani, and Gardner, 2004).

In the first research phase, an exploratory Computer-assisted web interviewing (CAWI) survey (Manfreda, Batagelj, Vehovar, 2002), was conducted to understand emerging market relationship orientations in a particular industry: the kitchen furniture industry. This industry is global, characterized by high levels of customization and service in global markets, where intangible aspects of relationships are always considered fundamentals. Affirmed producers are mainly Italians, so that all members of the main Italian furniture association (56 companies) have been invited to the survey, to find answers to Q1 and Q2. Two questionnaires were created, one for closer relationships in traditional markets, such as the western ones, and one for more distant relationships, such as emerging markets, identified as BRIC (Brazil, Russia, India and China). The content of the questions asked was previously tested with sales and international marketing managers and experts; a pilot test of questionnaires was submitted to some CEOs to ensure questions were clear in meaning and appropriate. Since the creation of a relationship starts from the company who is willing to begin an internationalisation process, they are the targets of this research. A reminder mailing and phone support for eventual clarifications were provided. The response rate of the questionnaire was 60.7% (Tab. 1).

TABLE 1. SURVEY SAMPLE

	# of companies	%
Number of questionnaires sent	56	100.0
Total number of responses	34	60.7
Number of responses on traditional markets survey	26	46.4
Number of responses on emerging markets survey	18	32.1
Number of respondents to both questionnaires	10	17.9

In the second phase, a qualitative research relied upon in-depth interviews, with twelve top managers from eight companies of the first sample (Tab. 2). The qualitative research is particularly suitable to extend a theory in different cultural contexts (Naslund, 2002; Gummesson, 2005), and it has been conducted relying on interviews of managers of those companies that are dealing with emerging markets, to understand the main difficulties they face in the stakeholder management. All the interviews, about 1-1.5 hours long, were digitally recorded and transcribed.

During interviews informants were allowed to speak freely on the subject of interest to the researchers, however a general interview protocol was prepared as follow: an initial warm up phase (brief overview of research and participants; assure the privacy of the information given; obtain authorization to record); a descriptive phase on company and participants background (history, industry related information, mission and values of the company, main marketing and internationalization strategies); an open discussion on main research topics (collaboration orientation, cooperation, information sharing tactics with different countries and different kind of stakeholders, main goals, critical problems or barriers, partner selection and related examples with particular interest in emerging markets); a final phase on their way, or solutions found to face those barriers before closing remarks.

TABLE 2. INTERVIEWS SAMPLE

<i>Company pen name</i>	<i>Internationalized</i>	<i>Nr subjects interviewed</i>	<i>Role</i>	<i># of employees</i>	<i>Revenues range € (in 2011 and 2012)</i>
IT1SC	Since 1996	3	General Manager; Vice-president; Export manager	547	Over 50000000
IT2SN	Since 90's	1	Export manager	172	25000000 - 50000000
IT3VA	Since 1996	2	CEO; Export manager	564	13000000 - 25000000
IT4RE	Since 90's	1	Export manager	154	10000000 – 13000000
IT5EU	Since 1992	2	CEO; Export manager	117	10000000 - 13000000
IT6EL	Since 1992	1	CEO	42	5000000 – 10000000
IT7AR	Since 80's	1	CEO	169	2500000 - 5000000
IT8SP	Since 2010	1	Export manager	5	1000000 - 2500000

Two independent researchers used a coding technique on transcriptions to verify the importance of the variables and make a cross-case analysis (Yin, 2003). Interpreting overall data with cross-case and cause-related effect analysis applying Ishikawa's fishbone diagram (Fig. 1), a useful tool for identifying barriers to success, this research suggests some IRMEM theoretical drivers.

Findings

Research findings highlight main knots to effective international relationship marketing, in particular in emerging markets, and connect them to potential causes. Knots may be divided into barriers and difficulties. Barriers were perceived more as country related, as generic macro issues, typical of one particular country or a specific market in it: such as protectionism, taxation, legal issues, physical distance, climate, infrastructures, distribution systems, language barriers, or main cultural values of the society in general. Difficulties were perceived as micro relational problems, that may differ from partner to partner, such as a partner competence, product quality perception, trust, commitment, logistics or other related service problem. As explained, questionnaires were prepared with managers, so that they have been created using manager common dictionary and definition used in their business. Traditional researchers may argue that we didn't use a previous theoretical framework to test past theories, but this exploratory research has been conducted to listen and interpret perceived problems in dealing with distant stakeholders, so we adopted the managerial approach from the beginning, without offering a pre-classification of main problems found in previous studies, even if international marketing theories influenced those lists.

The first research question was to understand which are the main barriers that western companies are facing when entering in new emerging markets (RQ₁). Findings are showing that, starting from the general overview of BRICs, the main barrier perceived is represented by taxation imposed by countries (33.33%, last column in Tab. 3). This barrier, however, is higher for Brazil and Russia countries, while India and China are perceived as more open. This first result should drive IRMEM to consider country peculiarities before generalize any framework.

The second main barrier is related to visibility on local professionals and their competence. We might comment that this barrier is strictly connected to company skills and its ability to get information on the market and correctly identify and select stakeholders (21.67%, last column in Tab. 3). However, this barrier seems considered more an external threat, rather than an internal weakness. Furthermore, only India and Brazil are country were company are very concerned about partner selection.

Reading barriers for each country (Tab. 3, countries in column), the main perceived barrier in Brazil, Russia and other emerging markets is taxation, while for India and China it is the partner identification and selection. It is

also interesting to highlight that China collected all kind of barriers, while in Brazil companies have to deal only with protectionism and taxation.

TABLE 3. MAIN INTERNATIONALIZATION BARRIERS WITH EMERGING MARKETS

	<i>Brazil</i>	<i>Russia</i>	<i>India</i>	<i>China</i>	<i>Other</i>	Tot. per barrier
Taxation	66.67	52.63	23.08	10.53	50.00	33.33
Partner identification and selection	-	10.53	38.46	31.58	-	21.67
Protectionism policies	33.33	15.79	15.38	5.26	-	11.67
No barriers	-	10.53	7.69	5.26	33.33	10.00
Brand protection	-	5.26	-	21.05	-	8.33
Product comprehension	-	5.26	7.69	5.26	16.67	6.67
Physical distance	-	-	7.69	10.53	-	5.00
Know how protection	-	-	-	10.53	-	3.33
Distribution network	-	-	-	-	-	-
Tot. per country	100.00	100.00	100.00	100.00	100.00	100.00

The second research question was addressed to find which are the main difficulties that western companies are facing when dealing with emerging market partners (RQ₂). Considering that one of the main relational barrier companies perceived was represented by partner identification and selection, a similar result came from this second analysis. The main difficulty companies are facing with emerging market partners are related to the lack, or inadequate, professional competence of the partner (23.26%, last column in Tab. 4) and a misalignment on product/service quality perception (23.6%, last column in Tab. 4). These issues are considered fundamental in a dyadic relationship, because the supplier needs to forward its values, and brand related messages, to the final market through an intermediate/partner. If that partner is not prepared, or aligned, or simply not aware of his critical role, an indirect presence in a foreign market exposes the company to the risk of a poor positioning, and also a lack of information on consumers' preferences and trends, losing actual and future market opportunities. Partner related difficulties are perceived more in Brazil, and in Indian market, where some logistics problems related to delivery time are also evident (see country columns in Tab. 4). According to this survey responses, cultural aspects, trust and physical distance don't represent a difficulty when working with emerging markets stakeholders. These results, if considered alone, may drive to the wrong conclusion that trust, commitment and cultural aspect are not considered critical when dealing with distant stakeholders. The qualitative research completed these findings, and better explained these results. Before presenting the second research findings, note that China collected all kind of perceived difficulties (see China column in Tab. 4), while Brazil, India or Russia showed selected problems.

TABLE 4. MAIN RELATIONAL DIFFICULTIES WITH EMERGING MARKET PARTNERS

	<i>Brazil</i>	<i>Russia</i>	<i>India</i>	<i>China</i>	<i>Other</i>	Tot. per difficulty
<i>Professional competence</i>	33.33	23.08	25.00	18.75	33.33	23.26
<i>Product/service quality perception misalignment</i>	33.33	23.08	25.00	18.75	33.33	23.26
<i>Organizational structure and key contact person</i>	-	30.77	-	18.75	33.33	18.60
<i>Delivery time</i>	33.33	7.69	25.00	6.25	-	11.63
<i>Language barriers</i>	-	15.38	-	12.50	-	9.30
<i>Trust</i>	-	-	12.50	6.25	-	4.65
<i>Cultural aspect</i>	-	-	12.50	6.25	-	4.65
<i>Time zones</i>	-	-	-	12.50	-	4.65
<i>Tot. per country</i>	100.00	100.00	100.00	100.00	100.00	100.00

Thanks to the qualitative research, these findings are enriched with explanation and examples permitting researchers to interpret them and connect to their causes (see Tab. 1 for pen names). Based on interviews transcriptions

coding, the interpretation lead to six main critical knots that impact the IRMEM emerged: legal issues, market uncertainty, insufficient product quality perception, psychic distance, logistics and distribution issues, inadequate partner skills.

Legal issues, emerged with great importance in the survey (taxation, protectionism, or brand and know how copyrights), were not discussed largely during the interviews; only one manager recalled an example, explaining why it took 3 years to enter a market, saying *“There were some difficulties in managing import taxes”* (IT4RE). An interpretation of this silence may be that country related barriers are not considered as difficulties where managers can find solutions deeper knowing them and related bureaucracy.

The second knot, labeled as market uncertainty, contains concerns about the fast development of those markets and the difficult in understanding their trends. Uncertainty is perceived since the predictability of trends in an emerging market is not reliable due to its continuous changing. An export manager of a big company said: *“Nothing is solid and it is growing fast, but not so fast as they (locals) also expected to”* (IT2SN); the vice-president of the biggest company of this sample, talking about India, commented: *“It is an evolving market, it has yet to develop his power and strength”* (IT1SC). Talking with practitioners, market uncertainty is an important issue that can cause difficulties in planning an entry strategy and set related investments.

The third knot, related to perceived quality of Italian products, often positioned as high quality with premium price may be explained by multiple reasons. One reason is connected to local similar products, that are more convenient and more basic, and mainly still artisanal (as confirmed by IT4RE). Another reasons is related to the limited country of origin effect; the “Made in Italy”, for the kitchen industry in this sample, is not so powerful. Some comments were given on Made in Italy awareness: *“The market has still a limited culture of the made in Italy and Italian design, and it’s more oriented towards classic products, instead of moderns”* (IT4RE); *“They understand Made in Italy, but only from a certain level upwards (...) otherwise they don’t understand why they should buy a product that comes from so far”* (IT2SN). This finding explains a relational stress of dyadic relationships, when a supplier strives to be known in his strengths and finds a lack of awareness in the partner.

The fourth knot is the cultural or psychic distance, which makes it difficult to establish a strong relationship since the beginning: *“If an Indian knows he doesn’t live up to our highbrow product, he is scared and he doesn’t come to our shop”* (IT3VA); *“We (Italians and Indians) have many touch points, but also many divergences (...), an Indian is so proud that you can’t tell him what he has to do”* (IT2SN). Cultural aspects were largely discussed and drove to many considerations about partners skills. In general, the culture is considered always important, when dealing with distant stakeholders, and managers feel a lack of knowledge on cultural aspect of different markets, both of themselves and their employees.

The fifth knot is connected to logistics and distribution problems, since the great distance impacts both in the delivery times, and also in managing all potential problems that can emerge during the transportation: *“We have some logistics problems because when the product arrives to our distributor, he has to know how to store it (...); when the product is installed in the house, it is safe, but it has suffered before”* (IT4RE); *“There are big problems in India, you have to sell in the surrounding of the harbor, otherwise the local distribution is very difficult to manage”* (IT7AR).

The sixth knot is represented by partner skills, since the product is very complex because it has a high level of customization, its value comes from intangible aspects (quality and “Made in Italy” design) and it requires specific competencies to install it: *“We need to find a person with a similar perception of the product to our, and with a contemporary style and design”* (IT8SP); *“He (the local partner) did not make the necessary investments especially in training the employees (...), the problem is that they don’t have the know-how on how to manage a project with luxury goods!”* (IT3VA). A general partner malcontent emerged from interviews, and more content has been analyzed within the cause-related effect analysis. In particular, many comments were made on trust related aspects, and lack of commitment in stakeholders.

The multiple methods research permitted to correct and confirm results of single surveys, so that for example cultural and trust issues seemed not so important in questionnaire, while they were hot topics in interviews. Intangible aspects are maybe more difficult to be aware of, or to classify under general meanings of direct simple questions. On the other side, during a conversation where daily examples are made it is easier to express personal impressions, and then they are linked to specific codes by expert researchers.

Conclusions

Theoretical implications

Research findings highlighted main knots to effective international relationship marketing, in particular in emerging markets, and connect those barriers to potential causes. It is important to underline the importance of multiple methods, that enriched and validated these conclusions.

The final findings are included in the Ishikawa Fishbone diagram in Fig. 1, that summarized the two steps research results and connect barriers, as perceived by companies in the sample, with related causes. As explained in the findings sections, six main knots have been identified, and related causes are connected as shown in Fig. 1.

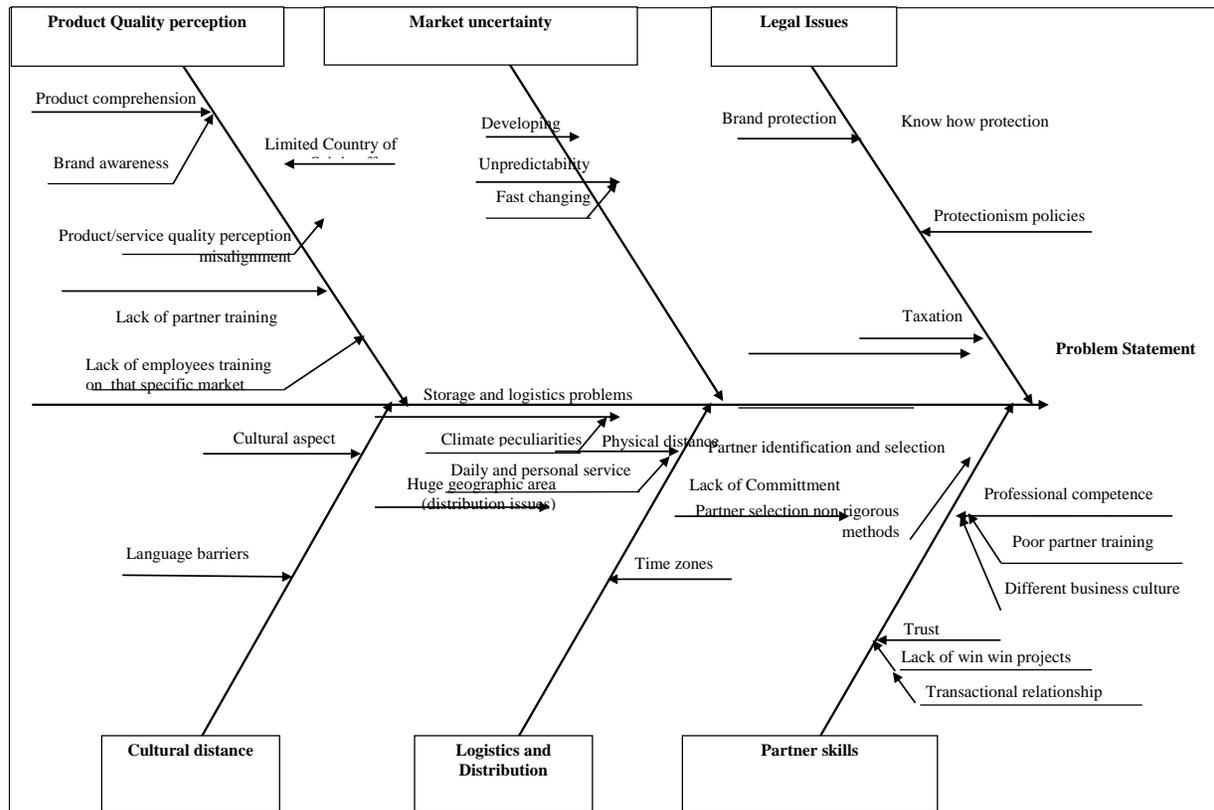


FIG. 1 ISHIKAWA FISHBONE DIAGRAM ON MAIN KNOTS AND BARRIERS FOR EFFECTIVE IRMEM

A new theoretical framework for IRMEM could be based on this fishbone diagram for at least two important reasons: it is showing different relationship variables respect those that are traditionally cited in the literature; it offers a critical perspective on trust and commitment aspects because they are here considered more as causes of problems than key factors of success.

Managerial Implications

A clear identification of cause-related effects can drive practitioners to improve their relationship skills and avoid critical problems. Reading Fig. 1 they can be aware of their situation and find ways to overcome those problems.

Some solutions and suggestions emerged from managers experience, such as the importance to begin a collaboration with a long-term project, instead of single short-terms actions (IT1SC and IT2SN). Another important aspect is the open-mindedness with which a relationship needs to be addressed.

Finally to strengthen the “Made in Italy” attractiveness, an interesting solution is represented by a collaboration with companies of complementary goods (such as bedrooms, and furniture in general) and with others representatives of the Italian life style, such as culinary schools. At least, building strategy as a network is perceived an important strategy to survive on international markets.

Limitations and further research

Due to space constraints, this paper is not deeply exploring barriers and related causes, differentiating them for diverse emerging markets, but it has been summarized to highlight some important concept and to give valuable insights for further researches. Ideally, from this research, should follow an intense exploration on same issues in different industries. Moreover, a future research topic should drive authors to create a new IRMEM theoretical framework.

References

- [1] Ballantyne D. (2009). Relationship marketing or is it “relationships in marketing”? New opportunities and constraints. *Journal of Business & Industrial Marketing*, 24, Issue 5/6, Commentary, 320-321.
- [2] Bejou, D., Wray, B., & Ingram, T. N. (1996). Determinants of relationship quality: an artificial neural network analysis. *Journal of Business Research*, 36(2), 137-143.
- [3] Berry L. L. (1995). Relationship Marketing of Services – Growing Interest, Emerging Perspectives. *Journal of the Academy of Marketing Science*, 23, 4, 236-245.
- [4] Bianchi C. C., Saleh M. A. (2011). Antecedents of importer relationship performance in Latin America. *Journal of Business Research*, 64, 258-265.
- [5] Bressan F., Signori P., (2014a). Get off to a good start. International Relationship Marketing in emerging markets. *Proceedings of the 10th International Strategic Management Conference*, Elsevier.
- [6] Bressan F., Signori P., (2014b). International Relationship Marketing closeness: Is e-Relationship an Answer? *Proceedings of the 2nd Global Virtual Conference*, EDIS - Publishing Institution of the University of Zilina, Slovakia.
- [7] Bressan F., Signori P., (2014c). International Relationship Marketing: Stakeholders Selection Remains a Weakness in Emerging Markets. *Proceedings of the 2nd International Conference on Marketing and Business Development (MBD)*, Bucharest University of Economic Studies, Bucharest, Romania.
- [8] Brush G. J., Rexha N. (2007). Factors influencing supplier share allocations in an oversease chinese context. *Journal of International Marketing*, 15, 4, 119-265.
- [9] Chandler J. D., Graham J. L. (2010). Relationship Oriented Cultures, Corruption, and International Marketing Success. *Journal of Business Ethics*, 92.
- [10] Christopher M., Payne A., Ballantyne D. (2002). *Relationship Marketing, Creating Stakeholder Value*, Butterworth-Heinemann Ed., Oxford.
- [11] Conway, T., & Swift, J. S. (2000). International relationship marketing-The importance of psychic distance. *European Journal of Marketing*, 34(11/12), 1391-1414.
- [12] Crosby, L. A., Evans, K. R., & Cowles, D. (1990). Relationship quality in services selling: an interpersonal influence perspective. *The journal of marketing*, 68-81.
- [13] Dwyer, F. R., Schurr, P. H. and Oh, S. (1987), Developing buyer-seller relationships, *The Journal of marketing*, 11-27.
- [14] Egan J. (2006). Sidelined? The Future of Marketing in the Contemporary Organization. *Irish Journal of Management*, 27, 2, 99-118.
- [15] Evans J. R., Laskin R. L. (1994). Relationship marketing process: a conceptualization and application. *Industrial Marketing Management*, 23, 5, 439-452.
- [16] Franke R. H., Hofstede G., Bond M. H. (1991). Cultural roots of Economic Performance: a research note. *Strategic Management Journal*, 12, 165-173.
- [17] Golicic, S. L. and Davis, D. F. (2012), Implementing mixed methods research in supply chain management, *International Journal of Physical Distribution & Logistics Management*, 42(8/9): 726-741.
- [18] Grönroos, C. (1996). Relationship marketing: strategic and tactical implications. *Management decision*, 34(3), 5-14.
- [19] Gummesson E. (1994). Marketing Relationship Marketing Operational. *International Journal of Service Industry Management*, 5, 5, 5-20.
- [20] Gummesson E., Lehtinen U., Grönroos C. (1997). Nordic perspectives on relationship marketing. *European Journal of Marketing*, 31, 10-16.
- [21] Gummesson, E. (2005), Qualitative research in marketing: Road-map for a wilderness of complexity and unpredictability, *European Journal of Marketing*, 39(3/4): 309-327.
- [22] Hewett K., Money R. B., Sharma S. (2006). National Culture and Industrial Buyer-Seller Relationships in the United States and Latin America. *Journal of Academy of Marketing Science*, 34, 3, 386-402.

- [23] Hunt S. D. (1997). Competing through Relationships: Grounding Relationship Marketing in Resource-Advantage Theory. *Journal of Marketing Management*, 13, 431-445.
- [24] Jackson B. B. (1985). Build customer relationship that last. *Harvard Business Review*, 120-128.
- [25] Katsikeas C. S., Skarmeas D., Bello D. C. (2009). Developing successful trust-based international exchange relationships. *Journal of International Business Studies*, 40, 139-155.
- [26] Khojastehpour, M., & Johns, R. (2014). Internationalization and relationship marketing: an introduction. *European Business Review*, 26(3), 238-253.
- [27] Manfreda, K. L., Batagelj, Z., & Vehovar, V. (2002). Design of web survey questionnaires: Three basic experiments [Electronic version]. *Journal of Computer-Mediated Communication*, 7(3).
- [28] Mangan, J., Lalwani, C. and Gardner, B. (2004), Combining quantitative and qualitative methodologies in logistics research, *International Journal of Physical Distribution & Logistics Management*, 34(7): 565-578.
- [29] Morgan R. M., Hunt S. D. (1984). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58, 3, 20-38.
- [30] Naslund, D. (2002), Logistics needs qualitative research: especially action research, *International Journal of Physical Distribution & Logistics Management*, 32(5): 321-338.
- [31] O'Toole T., Donaldson T. (2002). The Strategy to Implementation Cycle of Relationship Marketing Planning. *The Marketing Review*, 3, 195-209.
- [32] Palmer, A. (1997). Defining relationship marketing: an international perspective. *Management Decision*, 35(4), 319-321.
- [33] Phan M. C. T., Styles C. W., Patterson P. G. (2005). Relational competency's role in Southeast Asia business partnership. *Journal of Business Research*, 58, 173-184.
- [34] Samiee, S., & Walters, P. G. (2003). Relationship marketing in an international context: a literature review. *International Business Review*, 12(2), 193-214.
- [35] Shapiro J. M., Ozanne J. L., Saatcioglu B. (2008). An interpretive examination of the development of cultural sensitivity in international business. *Journal of International Business Studies*, 39, 71-87.
- [36] Styles C., Patterson P. G., Ahmed F. (2008). A relational model of export performance. *Journal of International Business Studies*, 39, 880-900.
- [37] Yin R. K. (2003). *Case Study Research, Design and Methods*, SAGE Publications.
- [38] Zineldin M., Philipson S. (2007). Kotler and Borden are not dead: myth of relationship marketing and truth of the 4Ps. *Journal of Consumer Marketing*, 24, 4, 229-241.

From product to service: exploring the main barriers of servitization in the Italian footwear industry

Ilenia Confente, ilenia.confente@univr.it
Business Administration Department, University of Verona, Italy

Andrea Buratti, andrea.buratti@uniurb.it
Department of Economics, Society and Politics, University of Urbino, Italy

From product to service: exploring the main barriers of servitization in the Italian footwear industry

Abstract

The purpose of this study is to explore the existing barriers that the firms encounter in starting the servitization process.

In doing so, we adopted a qualitative method in order to better explore and understand this phenomenon. In details, data was collected through 14 in-depth interviews with managers of firms belonging to the footwear industry, an important sector for Italian economy. After this, data analysis was realized through NVIVO software identifying the key elements that provide a first understanding of the drivers and barriers of these potential “servitized companies”.

Results clearly showed the existence of several categories of barriers but also drivers that have lead manufacturers to start their servitization process.

This paper provides useful implications both for managers and for marketing scholars. At the former it helps to understand the main drivers but also the potential obstacles when beginning an effective servitization process. For academics, the study extends the existing knowledge about factors that influence this organizational and managerial change but also it highlights the main barriers of servitizing companies.

Introduction

In the last two decades, “servitization” have been representing an interesting and popular research area. This shift from goods to services is not easy and firms can face several difficulties in changing their focus on the core offering.

Increasingly manufacturing firms are moving away from manufacturing pure physical products to service provision for several reasons: from finding a new competing way or avoiding the price competition, to add value to their traditional manufactures and competing in a market increasingly globalized.

The phenomenon has been recognized by academia in 1988 when Vandermerwe and Rada introduced the concept of “servitization”. This approach has been undertaken from different perspectives.

Several articles have adopted an organizational approach to study this issue but limited attention it has been address from a marketing perspective, considering not only the drivers that have led companies to adopt this approach but also the main barriers firms have to tackle.

The aim of our article is to explore this phenomenon in order to understand the development of this approach in the Italian companies, particularly in the footwear sector. A particular focus will be put on the main difficulties and barriers that companies face when trying to implement the servitization or during the process of transformation of the manufacturer’ business strategy toward increasing service provision (Baines et al., 2009; Turunen and Finne, 2013).

To summarize, the study will try to answer to the following research questions:

a) Are footwear companies servitized? If yes, which are the main service they provide along with their products?

b) What are the main difficulties and barriers these companies face when trying to servitize their offering?

The article is structured as follows: first we will provide a theoretical background about the servitization phenomenon then the research method will be described. Lastly, the main findings will be highlighted with attention to managerial implication and conclusion.

Literature background

Over the last two decades, the manufacturing industry has faced an important transformation due to several factors, such as, the increase of competitiveness, the decrease of profits and the vulnerability of the demand (Hou e Neely, 2013). Servitization has been defined as “the process of transforming manufacturers to compete through product-service systems (PSSs) rather than products alone” (Baines et al., 2007, 2009a, 2010).

This orientation is recognised to be a process of creating value by adding services to products (Vandermerwe and Rada, 1988). The integrated product-service offerings are distinctive, long-lived, and easier to defend from competition based in lower cost economies.

This shift from the traditional manufacturing activities, is a key research theme which has been covered for twenty years from different perspectives (Hou e Neely, 2013).

The main research areas that have paid attention to this topic are operations, business management and marketing (Baines et al., 2009).

Our study will focus on service marketing perspective and the related literature on service offering and development, (Vandermerwe and Rada, 1989; Wise e Baumgartner, 1999; Martin and Horne, 1992; Oliva e Kallenberg, 2003; Brax, 2005; Gebauer et al., 2004; Gebauer and Friedli, 2005).

The main idea is that companies should be able to face price competition and differentiate themselves from competition through the offering of an augmented product with its several levels (Levitt, 1962).

The success of this approach might depend on the capabilities of firms to include all the players of their supply chain in the value creation process, from the suppliers to the final customers.

From this perspective, servitization involves a strategic, dynamic and process dimension where companies can add superior value through services (Vandermerwe and Rada, 1988; Quinn et al., 1990; Gebauer et al., 2006) within their core offering (Oliva and Kallenberg, 2003; Gebauer et al., 2006).

There are various forms of servitization. They can be positioned on a product-service continuum ranging from products with services as an “add-on”, to services with tangible goods as an “add-on” and provided through a customer centric strategy to deliver desired outcomes for the customer (Baines et al., 2009).

This heterogeneity is not just limited at a company level but might be function of the industry and to the product complexity (Dachs et. al., 2013).

A key feature of servitization strategies is a strong customer centrality. Customers are not just provided with products but broader more tailored “solutions”(Miller et al., 2002; Davies, 2004).

A wide part of the international literature has focused on the identification of factors which have lead companies to pursue a servitization strategy. These drivers can range from financial, strategic (competitive advantage) and marketing drivers (Mathe and Shapiro, 1993; Mathieu, 2001b; Oliva and Kallenberg, 2003; Gebauer and Friedli, 2005; Gebauer et al., 2006; Gebauer and Fleisch, 2007; Neely, 2009).

Beyond the drivers that have lead companies to adopt the servitization approach, few research has paid attention to the barriers to servitization, at least at from a conceptual point of view (Hou e Neely, 2013).

The challenge for manufacturers is the organizational change needed to transform the manufacturing culture into a wider approach that support the development of service. In addition, a further barrier is the need for financial resources to provide helpful services to integrate the traditional offering system and to reach a sustainable competitive advantage (Mathieu, 2001a, b). This might lead to resistance in some company functions where a service strategy might not be well understood or considered (Foote et al., 2001; Galbraith, 2002; Windahl and Lakemond, 2006).

Hence, the creation of an organizational context oriented to service is crucial for firms, and represents one of the most successful factors for companies interested to this change.

In particular, a recent study by Hou e Neely (2013), identify seven categories of barriers to servitization (see Table 1), divided before and after the servitization process.

TABLE 1. BARRIERS TO SERVITIZATION

ASPECTS	EXISTING BARRIERS BEFORE SERVITIZATION	BARRIERS DURING SERVITIZATION
<i>Competitors, Suppliers & Partners</i>	<ul style="list-style-type: none"> •A more complex competitive environment involving different actors (Vandermerwe and Rada, 1988) 	<ul style="list-style-type: none"> •Difficult to get coordination and cooperation from different actors (Mont, 2002)
<i>Society & Environment</i>	<ul style="list-style-type: none"> •Lack of policy and infrastructure support (DiPeso, 2000) •Lack of incentives to pursue environmental benefits (White et al.,1999) 	<ul style="list-style-type: none"> •Difficult to achieve environmental benefits, which largely depend on circumstances (Mont, 2002)

<i>Customers</i>	<ul style="list-style-type: none"> •Heterogeneous demands (Vandermerwe, 1994) •Lack of trust from customers (Whiteet al., 1999) 	<ul style="list-style-type: none"> •Difficult to get cooperation & acceptance from customers (Vandermerwe and Rada, 1988) •Lack of control over customers' behaviours (Heiskanen and Jalas, 2003)
<i>Finance</i>	<ul style="list-style-type: none"> •Lack of financial competence for early investment (DiPeso, 2000) 	<ul style="list-style-type: none"> •Service paradox (Neely, 2009) •High risks (Stremersch et al., 2001) •Unexpected costs (Ottman, 1999) •Difficult to price services (Steinberger et al., 2009)
<i>Knowledge & Information</i>	<ul style="list-style-type: none"> •Lack of expertise (Brax, 2005) •Lack of understanding of customer demands and product properties (Mont, 2002) •Lack of innovation ability (Macdonald et al., 2011) 	<ul style="list-style-type: none"> •Difficulties in knowledge & information management (Vandermerwe, 1994)
<i>Products & Activities</i>	<ul style="list-style-type: none"> •Lack of cheap labour (Cook et al., 2006) •Lack of infrastructure (Maxwell et al., 2006) 	<ul style="list-style-type: none"> •Difficult to design service packages or scenarios •Difficult to measure services (White et al., 1999)
<i>Organizational Structure & Culture</i>	<ul style="list-style-type: none"> •Lack of service-based organizational structures (White et al., 1999) •Lack of service-oriented culture (Mont, 2002) •Preconceived thoughts and resistance to change (Vandermerwe, 1994) 	<ul style="list-style-type: none"> •Conflicts between different sectors and different hierarchies in organizations (White et al., 1999) •Internal resistance to servitization (Vandermerwe and Rada, 1988) •Difficult to build service-oriented organizational structures and culture (Vandermerwe, 1990)

Source: Hou and Neely, 2013

The most cited barriers in the literature are those related to customers and their lack to cooperate and to accept some service schemes and also the organizational structure and cultural aspects (Vandermerwe and Rada, 1988; Hou and Neely, 2013).

The purpose of our research is to explore the actual existence of any barriers to servitization that companies face when they decide to increase their service provision.

Research Method

To answer to the research questions we adopted a qualitative methodology in order to better explore and understand in-depth this phenomenon. The main method of analysis was the semi-structured interviews (Creswell, 2007; Contrafatto, 2009). Indeed, there are few empirical evidences on barriers to servitization so an exploratory empirical study would allow to develop further evidence about the obstacles hindering the transformation of the firms.

We have investigated this phenomenon in the footwear industry for many reasons. First, footwear industry is an important sector for Italian economy as demonstrated by ANCI report (2012). Italy is the fourth largest exporter of footwear in the world and Italian footwear represents one of the pillars of the Made in Italy and contributes widely to the trade balance and GDP. Further, the servitization has not been still investigated in this sector and for this reason could emerge new and important insight on the topics.

Based on the literature, an initial interview guide was developed. This was built developing three sections: in the first one we asked an overall description of the firm and respondents plus others information about their role within the footwear supply chain; in the second part we requested the main services offered by firm and finally the barriers to provide these services.

Informants were selected using a 'theoretical sampling' method (Glaser & Strauss 1967) in SME of the Marche Region because in this Region there is one of most important district for footwear production. In addition, theoretical sampling is an adequate methodology for qualitative studies (in particular accord to grounded theory designs) where the objective is not statistical representativeness (which requires random sampling), but theory generation or reconsideration.

In details, data was collected through 14 in-depth interviews, until theoretical saturation was achieved, with managers of manufacturing and others firms belonging to the footwear industry. Given the explorative nature of this study, there were included also suppliers and retailers to enrich results about the topic. The interviews were realized on May 2014 by two researchers following the protocol suggested by Arksey e Knight (2009) and each interview lasted on average 22 minutes. Table 2 shows the characteristics of firms and the respondents interviewed.

TABLE 2: MAIN FEATURES OF THE FIRMS AND THE INFORMANT INTERVIEWED

Company Name	Establishment Year	Supply Chain Position	Interviewer Role	Year of Expertise
Alpha	1989	Retail	Owner	25
Beta	1979	Supplier	General manager	5
Gamma	1978	Manufacturer	General manager	12
Delta	1978	Supplier	Sales and Product Manager	23
Epsilon	1981	Retail	Owner	33
Zeta	1954	Supplier	General manager	12
Eta	1964	Manufacturer	General manager	15
Theta	2012	Retail	Owner	4
Iota	1982	Manufacturer	General manager	4
Kappa	1974	Supplier	Owner	40
Lambda	1972	Manufacturer	General manager	13
Mu	1984	Manufacturer	Financial and Sales Manager	30
Nu	1999	Supplier	General manager	15
Xi	1987	Supplier	Owner	27

The interviews were transcribed and then assessed by an initial reading to get a preliminary grasp of content. After this, data analysis was realized through NVIVO software identifying the key elements that provide a first understanding of the degree of servitization plus the existence of any potential barriers of these potential “servitized companies”. The coding procedures were conformed to those found in grounded theory (Glaser and Strauss, 1967). This implied an initial open coding process to identify the major variables of interest. The analysis unity is the paragraph. The subsequent downloads enabled refinement of the core constructs. Selective coding was utilized to identify relevant sub-categories and finally, theoretical coding allowed linkages with theory. To confirm the reliability of these findings, two research assistants conducted separate coding of the same data (Strauss and Corbin, 1990). The results of the three processes were consistent.

Findings

Results from the interviews confirm the importance of the service for the footwear industry. Indeed, all the respondents affirm that service is an essential element of their company core offering and its importance has increased in the last years. The customers, both business and consumer customers, are paying more and more attention to intangible dimensions of the offering such as services and branding and for this reason also manufacturing firms have to consider the service when designing their offering. For example the interviewed person of Mu firm asserts: "in the last years all the successful firms have provided services to their clients". Another respondent in Kappa firm declares: "In the last decade the service weights a lot. The clients are more demanding for it". All the firms considered in our sample are attempting to achieve a superior market position through the introduction of services in their offering. This orientation is not a choice but needs for the firms that do not want delocalize their production.

This statement is confirmed by the large amount of services offered by the firms interviewed. Table 3 shows the main results of the analysis. Each code reported in the first column represents a service offered by firms while the second column provides with a brief description of the service emerging from interview transcribed. Then the frequency with which codes have appeared in interviews is reported along with a quote that demonstrated the fit with the code. Overall, 14 services have been identified but only some are particularly interesting. For instance, from the table that main service offered by firms are "Modellery" (this code has been cited four times), that is the customization of the product offered and "Repair service" of shoes (this code has been cited four times). In particular, modelling service is devoted to business market and it allows a major flexibility in modifying the offering upon customer's request. These aspects are very relevant for the footwear industry which is characterized for variability. "Customization" and "Repair" services have a double role: first, they enrich and improve the offering to the market and they also strength the relation among footwear firms and business customers. Other services are "Footwear commercial returns" and "handmade"; the first is the replacement of the footwear products when retailers don't sell them even without flaws while the second consists in creating tailored footwear for each client. The "Guarantee service" can be considered as an evolution of traditional "Restitution" service because it provides a formal document on the footwear quality. Finally, it is emerged "Market research" services, by a supplier, which seems predict a changing in favor of the market orientation also in footwear industry.

TABLE 3: SERVICE AND CODES

Code	Description code	Frequency	Quote
Modellery	A process through which the manufacturer creates a footwear product, designing, testing and reworking before of the actual production.	4	<i>...we provide our customers with a prototype and modeling service. They come here with their ideas or drafts on a paper and we are able to transform that ideas into a real product ...</i>
Customization	Customer opportunity to order a customized footwear product choosing among several modules as leather or shapes.	4	<i>...if a client wants something of another color, or she/he wants to t change the leather or the sole, we can make this...</i>
Repair	Service addressed to to fix worn or detaching soles, broken heels or worn material.	4	<i>Even after three year, when a client has a problem with her/his footwear such as with the sole, we are willing to take back the footwear, repair the sole and reship the goods for free.</i>
Returns management	Replacement of the faulty footwear	3	<i>...if there is some problem with the production quality, we are always ready to take back the footwear faulty</i>
Commercial returns	Replacement of the footwear when retailers don't sell them even without flaws	3	<i>...if our business clients don't sell our products, we allow them of exchanging footwear up to 5%, 10%, or 15 % of total order quantity.</i>
Handmade footwear	Footwear creates around at feet of the people	3	<i>...when we make footwear, we take measures directly with the final customers.</i>

Expert advice	The provision of professional assistance and advice in resolving technical problem on footwear	3	<i>...we are always in contact with our client. We advice them in any technical problems they face.</i>
Delivery	The activity of shipping footwear	2	<i>...in my opinion, the shipment on time is a key element of our offering.</i>
Promotional	Offline and online Activity to increase customer sales	2	<i>...we support retailers with online communication</i>
Financial	Customized date and means of the payment to business clients	1	<i>We have chosen to pay after 40 days of delivery and not 30 days with a discount of 3 percent</i>
Guarantee	A formal agreement stating that a product will be repaired or replaced when it does not meet specific requirements	1	<i>...we have created a guarantee for our footwear, through a certificate where it is written when it has been made and the name of artisan that have produced it. We want to communicate that the footwear has been made with Italian raw materials, produced in our firm.</i>
Market Research	A service to test and verify certain features of the products on the market	1	<i>...market research is needed for each brand to understand what customers want. Based on such research, we can suggest the best product to our customer.</i>

In table 4 the main barriers are described. In particular, “Costs” are considered a heavy obstacle to the servitization. It seems to be considered the true hitch to servitization and it is not easy to eliminate them. Other important barriers are: “Attitude” and investments needed for facing the change. Furthermore, “Minimum order quantity” and “District Destructuration” seem to be others aspects which can slow down the provision of the services. The outsourcing processes in the last years have undermined the efficiency of the districts and many firms have a problem in responding to demand that asks a production in small order. In addition, the lack of “collaboration” among the firms could damage the competitive capabilities of Italian firms.

TABLE 4: BARRIERS

Code	Description code	Frequency	Quote
Costs	An amount that has to be spent for the services	5	<i>...when the firms compete on the service, the major difficulty is the costs.</i>
Attitude	The approach toward the way of work and organize the activities	4	<i>...the lack of training and attitude toward services constitutes the main barrier...</i>
Investments	Expenses to realize new services/activities with future returns	4	<i>Nowadays investments are a problem because the markup is limited. Investing is increasingly difficult.</i>
Minimum order quantity	A order with low amount	3	<i>We are used to produce in large quantities and production in small orders is a problem. The personalization force us purchase low amount and this is not easy.</i>
District Destrutturaton	Problems with disintegration of the supply chain , after the delocalization processes	2	<i>Until year ago, there were many warehouses where we can buy the leather. Now, in the warehouses there are few raw materials and this can limit the customization and the delivery on time</i>

Collaboration	Difficulties to work together with other firms	2	<i>I would like more collaboration among Chemistry Laboratory Directors of other companies to share information and knowledge about new colors/effect/treatment...</i>
Coordination	The organization of the firms to provide a service	1	<i>I can't provide a service by myself. I need the entire supply chain to work for it but I have to convince all my suppliers and others firms to participate. This is a huge difficulty</i>
Communication	The effort/capabilities to communicate and promote new services	1	<i>...the firm has to communicate that provides services beyond the product, therefore we have created and promoted a new specific brand for this initiative and this is very difficult.</i>

After having analyzed the results of the coding process, the codes on the barriers to servitization have been compared with emerging aspects in the literature. The intention was to find any differences between literature and empirical evidence. As showed in table 5, most of all the codes are related to literature aspects. Specifically, “Finance” aspect is the most cited code. However, some aspects such as “Customers” and “Society & Environment” do not seem to be relevant barriers.

TABLE 5: MATCH AMONG BARRIERS CODES AND LITERATURE REVIEW

Code	Literature Issue	Presence or Absence	Frequency
Cost Investment	<i>Finance</i>	<input checked="" type="checkbox"/>	9
Collaboration			
Coordination	<i>Competitors, Suppliers & Partners</i>	<input checked="" type="checkbox"/>	5
District			
Destrutturazione			
Communication	<i>Knowledge & Information</i>	<input checked="" type="checkbox"/>	5
Attitude			
Minimum order quantity	<i>Products & Activities</i>	<input checked="" type="checkbox"/>	3
	<i>Customers</i>	X	
	<i>Society & Environment</i>	X	

Conclusion and implication

The findings of this research explored the servitization and its barriers in Italian firms. In fact, the research has been conducted in the footwear sector, which is very important for the Italian economy. However, no research has been previously conducted in this sector about servitization issue.

This research shows how service is an essential element for this industry and new services have been highlighted by respondents compared to those identified from the traditional literature on the servitization. The firms have understood the relevance of the services and they have begun to include them in their core offering as resource of competitive advantage. Moreover, firms can face different servitization level (Martinez, Bast, Kingston, Evans, 2010). Indeed, there are companies that have implemented many services and other companies that have implemented just a few services. However, the manufacturing sector should not be considered as a unique unit of analysis as there are many sectors below this umbrella and in each of them, there could be different kind of the services provided by firms.

Therefore we retain useful to split the services provided by the firms in three categories (Baines, Lightfoot, Smart, Fletcher, 2013): first, the firms provide base services such as “Modellery” or “Customization” which focus on the product provision, second intermediate services such as “Repair” or “Returns Management” which relate to the condition maintenance and finally advanced services such as “Commercial Returns” that focus on outcomes and overall performances.

Regarding the barriers, the research confirm the existence of many barriers already highlighted in previous literature at a theoretical level and, at the same time, it explains how these occur. However, the findings differed from literature as “Customers” and “Society and Environment” are not considered as barriers. The customers are considered as a driver to servitize the company and not as a barrier. In addition, some respondents have quoted “Society and Environment” but they have considered as a general obstacle to business, not just to the services offering.

Research reported in this article provides further insight to better understand the servitization issue for both scholars and managers. From an academic point of view this research provides a first step for future quantitative research because it broadened the knowledge on the variables that could influence and encumber this phenomenon. For managers, this study is useful because it warns on difficulties encountered in this process experienced by other firms.

The main limits of this research are manifold. First, this is the explorative research and it examines only few cases. Therefore is not possible to generalize the results of the research. Furthermore, these cases are localized in one Italian Region and they regard only SME firms.

In future research these variables should be tested in other sectors. Moreover, this research could be accounted as a base for a quantitative research in order to test the effect of the barriers to the process of servitization.

Contact Authors for the list of references

References

The trigger for positive word of mouth in the after sales service

Ilenia Confente, ilenia.confente@univr.it

Ivan Russo, ivan.russo@univr.it

Business Administration Department, University of Verona

The trigger for positive word of mouth in the after sales service

Abstract

This study aims to study the effect of after sales service experience and its quality on overall satisfaction and word of mouth (WOM) for the automotive service providers in Italy.

Based on the additional marketing mix elements required for services marketing (respectively people, process and physical evidence), we investigated the effects of after sales service experience quality on satisfaction and WOM.

Data were collected through a survey of 210 customers in the automotive service. They were asked to evaluate several items related to their after sales service experience provided by authorized dealers for their car maintenance services. Data were analyzed using linear regression model adopting R software.

Results showed evidence of a relationship between satisfaction and the desire to recommend and supported the fact that after sales service satisfaction represents an antecedent of consumer satisfaction and WOM, at the same moment.

Introduction

One general trend in the automotive industry is that products become more an enabler for beginning relationships with customers. Car sales become a reason to establish relationships, various services help companies maintain them in order to ensure additional financial income. However, the prolonged economic downturn is driving a greater number of original equipment manufacturers (OEMs) to place renewed attention on the aftermarket as consumers put off new purchases and hold on to their cars longer (Accenture, 2010). New car sales growth is slowing, that is still a lot of cars, but an even more promising, and less obvious, opportunity is the aftersales market, including spare parts, service, used car sales, and financing, which serves as an integral component of brand building and sales management. New passenger car registrations continued on the generally downward path started in 2007; since that year they have fallen from 15.6 million to 12.0 million, a decline of 23%. The trend reflects the close relationship between vehicle sales and the economic climate. Accordingly, it is most pronounced in southern Europe, where vehicle sales have decreased by 60% in Spain and 45% in Italy since 2007 (ICCT 2013).

To enable dealer excellence in servicing customer needs, service operations require complex capabilities in terms of tools, processes and systems with no or limited revenue opportunity for OEMs. Despite the significant financial and customer satisfaction impacts of the aftersales business, OEMs have historically given little attention to aftersales and done little to improve the performance of their aftersales functions (Accenture, 2010). Many automotive companies constantly expand their service business and service scope: traditional after-sales maintenance and repair services are supplemented with finance and insurance services and re-formulated into service bundles (Godlevskaja, Iwaarden and van der Wiele, 2011). In an automotive context, after-sales service becomes a vital source of brand building as it represents continuous contact between car producers and customers through authorized dealers network during the the product cycle life.

This paper makes a contribution to the literature by investigating the importance of after sales service quality in achieving high levels of customer satisfaction and positive word of mouth. This study is also important to practitioners, since measurable awareness of customer perception of the after sales service based on intangible elements can lead to changes in firm profitability and customer loyalty. This can be achieved through determination of what has been evaluated right or wrong from the customer's perspective and what should be modified. Moreover after-sales services are taking substantive position to the overall satisfaction, the augmented product offered.

Literature background

After sale experience in service marketing

After-sales service has been widely used to describe services that are provided to the customer after the products have been sold or delivered. Support entails all activities undertaken by service support providers to ensure that consumers continue to get trouble-free use of the product over its life cycle. An after-sales support strategy associated with a product may include elements such as warranty provision, extended service contract provision,

availability of repair service, loan availability, toll-free phone support, returns policy. Some scholars show that the revenue generated from the provision of after sales service and spare parts sales, exceeds three times the value of the initial purchase (Saccani et al., 2007).

Levitt (1983) sees the initial sale of a product only as the start of a seller–buyer relationship, one of that touch point after-sales function of a company crucial. Various terms are used in literature for what here is labeled after-sales service. Goffin and New (2001) list, for example: customer support, product support, technical support, and service. Other several definitions of after-sales service can be found in literature (La Londe et al., 1977; Sterling and Lambert, 1989; Loomba, 1996; Johansson and Olhager, 2004; Kurata and Nam, 2010). Building on these definitions and keeping a general and comprehensive perspective, we say that the after-sales services for manufactured goods encompass the set of activities taking place after the purchase of the product, devoted to supporting customers in the usage, maintained and/or disposal of goods. Earl and Khan (1994) classify after-sales as a business network process, since it has a direct impact on business performance and on the creation of competitive advantage. They might provide complementary services (e.g. field assistance and customer care) as well as competing ones (e.g. field assistance provided by sale points and repair centres or by authorised and unofficial assistance networks). Moreover, the diffusion of Internet and other technologies “expands the number and variety of customer touch points and service delivery channels” (Hill et al., 2002), and, when looking at the supply chain structure, makes the picture even more complex.

Several scholars suggest that well-executed service recoveries increase perceptions of customer satisfaction, build relationships, and prevent customer defections (Keaveney, 1995), whereas poorly executed recoveries can decrease a customer’s loyalty to a firm (Mattila, 2004). Well-handled service recovery considerably rises the association between customer satisfaction and both trust and commitment toward the service provider (Tax, Brown and Chandrashekar, 1998).

Manufacturers may make provisions for after-sales service support either by offering it directly at the plant, through their own network of service centres, through channel intermediaries, through authorized independent third-party service centres, or by some combination of these organizations (Loomba, 1996). Product-based differentiation in the automotive industry is increasingly difficult and firms cannot compete on products alone. Many automotive companies realised enormous growth opportunities in the service area. One additional trend in the automotive industry is changing customer requirements to services, growing service complexity and the need to customise services. (Godlevskaja, Iwaarden and Wiele, 2011).

Increasingly, after-sales customer service is becoming the order-winning criteria for most firms and is now being recognized as an important research priority.

The impact of service quality on overall satisfaction and Word of Mouth

Customer satisfaction is defined as “customer fulfillment response”, which is referring to customers’ post-consumption evaluation on whether the service provided is at satisfying level of consumption-related fulfillment, either under- or over-fulfillment (Oliver, 1997).

Operationally, satisfaction is similar to attitude, as it represents the sum of several attribute satisfaction judgments (Maxham III, 2001). From this perspective, satisfaction is a transaction specific measure (Bitner, 1990; Parasuraman et al., 1988). Others view service-related satisfaction a bit differently. Cronin and Taylor (1992) define satisfaction as a cumulative evaluation, and an outgrowth of service quality. In their view, satisfaction represents a global judgment rather than a transaction-specific measure. Satisfaction is also thought to have an affective element that is experiential, and, probably, is most appropriately assessed after consumption (Ostrom and Iacobucci, 1995).

Our perspective support the great volume of research confirming the fact that service quality is an antecedent of consumer satisfaction (Cronin and Taylor, 1992; Dabholkar et al., 2000).

A further step in our study is to understand the impact of satisfaction on word of mouth. Word-of-mouth is especially important for service providers whose offerings are largely intangible, and experience or credence based. In these services customers rely heavily on the advice and suggestions from others who have experienced the service (Kinard and Capella, 2006).

There is evidence from the literature of the relationship between satisfaction and the desire to recommend (Parasuraman et al. 1988; File et al., 1994; Shemwell, 1998; Söderlund, 1998; Sivadas and Baker-Prewitt, 2000, Hennig-Thurau et al. 2002; Chaniotakis and Lymperopoulos, 2009).

In fact, potential consequences on customer behavior from an very high or low satisfaction might be:

- complaining behaviour
- positive/negative Word-of-Mouth.
- repeat purchasing and loyalty (Szymanski and Henard, 2001).

More specific, positive comments from satisfied customers can increase purchases, while negative comments from unsatisfied customers can decrease purchases (Ennew et al., 2000).

Moreover, companies should enhance their customer satisfaction in order to lead customers to repeat their purchases and to positively recommend the products and services to other potential customers. In doing so, these behaviour might benefit both in terms of retention and acquisition (Gremler and Brown, 1996). After sales service offers differentiation potentials that a producer can use to strengthen their brand equity (Cavalieri et al., 2007).

While there are several studies investigating the effect of service quality on satisfaction and the impact of satisfaction on Word of Mouth, there is limited research related on the effect that service quality dimensions have on satisfaction and WOM, at the same moment (Arasli, 2005; Macintosh, 2007; Chaniotakis and Lympelopoulou, 2009; Ferguson et al., 2010). Fewer articles refer to the direct relationship between service quality and behavioural intention, such as word of mouth (Zeithmal et al., 1996; Olorunniwo et al., 2006, Ng et al., 2011).

In addition, these previous studies considered whole service provision such as bank service, travel agency experience or healthcare treatments, not the service referred to the aftersales experience, an integrated phase which is subsequent to the purchase of tangible goods.

So there is little research has been done in order to understand if the intangible elements in the after sales offering impact on the customer satisfaction and on customer's willingness to widespread WOM.

Research method

Data sample and collection

Data collection focused on after sale service evaluation perceived by customers in the automotive industry. The aim was to explore the importance of each of the intangibles after sales elements, such as the role of which people (personnel), process and physical evidence and their impact, on overall customer satisfaction and word of mouth.

The automotive industry has been selected for different reasons. The complexity for the products in the market has driven final customer searching for advice from trustworthy and reliable sources. Then the automotive market in Europe which has faced crisis in the last decade and the number of cars has dramatically halved (UNRAE, 2013).

The block exemption regulation (BER) inclined European manufacturers to undertake performance improvements. Changes, which manufacturers are confronted with since this regulation came into force in 2003 are: sharply reduced control over their distribution networks, as well as increased competition in the parts and after-sales business.

We chose to investigate the after sales service in one of the biggest authorized car dealer of the North East of Italy, a country where, there is the highest number of cars in terms of density (Autopromotec, 2012). However, due to the crisis, the cars owned by customers become older and older and need further assistance. Under these circumstances, car maintenance services become one effective way for car dealers to increase customer loyalty and revenue beyond car sales. The assistance centres are responsible for repairing and maintaining the product. Several channels can be identified: the ones authorized (through contractual agreements) to sell and repair (dealers), or to repair only (authorized garages), the generic ones (independent garages), the specialized ones (tyres repairers, electrical workshop, etc.), the fast fit (independent or authorized) specialized in handling minor repair works and the soft franchise network (independent, owned by a component supplier or by a distributor). In most cases, only dealers and, to a minor extent, authorized garages bear direct and continuous relationships with the manufacturers (Gaiardelli, P., Saccani, N., & Songini, L. 2007). In our case we collect data from a full authorized after sales service provider, totally integrating with the sales dealer.

Data was collected through an on-site self CASI (*Computer Assisted Self-Interviewing*) survey using the tablet tool. This was useful to collect a real time feedback few minutes after the car assistance service provision.

A pilot survey was administered on a convenience sample of 105 customers.

A ten questions questionnaire was finally structured. Questions were divided into two main sections: section a) demographics characteristics of respondents; section b) after sales service items evaluated adopting 1-10 Likert scale (1=highly dissatisfied to 10=highly satisfied) and two questions about overall satisfaction 1=highly dissatisfied to 10=highly satisfied) and the willingness to recommend the company ((1=highly disagree to 10=highly agree).

The questionnaire was given to a convenience sample of 210 Italian customers. Data collection started in November 2012 and ended in December 2012. Within this time period, the car dealer counted 649 customers receiving an after sale assistance/service. So, the redemption rate is 32.4%. 27.6% of the respondents were females and 72.4% males. The majority of respondents declared to have an age comprised between 35 and 64 years old (77%).

Data analysis

TABLE 7: INTANGIBLE SERVICES IN AFTER SALES EXPERIENCE

Items	Min	Max	Mean	St.dev.
Welcoming	2	10	8.733	1.216
Customer waiting area	2	10	8.676	1.260
Personnel expertise	5	10	8.9	1.074
Personnel courtesy	5	10	9.067	1.083
Contact Service	5	10	8.786	1.189
Documentation quality	3	10	8.790	1.223
Quality versus price	1	10	7.5	1.578
Service lead time	2	10	8.348	1.508
Word of mouth	1	10	8.576	1.453
Overall satisfaction	4	10	8.586	1.204

Respondents were asked to evaluate their satisfaction for following after sales elements.

These might be labeled as physical evidence drivers, such as the customer waiting area (the atmosphere, colors, furniture of the area where customer receive their car assistance and maintenance service), documentation quality (if the documents provided to customer, such as invoice or instruction documents are clear and well written).

Other items related to the after sales service might be related to the process sphere, for instance the welcoming activities, the contact service to require the car assistance, and the service lead time.

Finally the people dimension might play an important role for the perception of a high satisfaction. This is in our case, the role of the personnel expertise and the personnel courtesy which provide added value to the overall offering.

Data was analyzed through descriptive statistics, and a linear regression model exploring the impact of the after sales elements on the overall customer satisfaction and on the word of mouth.

The outcomes of satisfaction and word of mouth were each measured using a single item adapted from Huntley (2006).

The following regression models were elaborated using R software:

$$a) \quad overall\ satisfaction = \beta + \beta_1\ welcoming + \beta_2\ waiting\ area + \beta_3\ expertise + \beta_4\ courtesy + \beta_5\ contact\ service + \beta_6\ documentation + \beta_7\ quality + \beta_8\ service\ lead\ time + \varepsilon \quad (1)$$

$$b) \quad word\ of\ mouth = \beta + \beta_1\ welcoming + \beta_2\ waiting\ area + \beta_3\ expertise + \beta_4\ courtesy + \beta_5\ contact\ service + \beta_6\ documentation + \beta_7\ quality + \beta_8\ service\ lead\ time + \varepsilon \quad (2)$$

In order to assess reliability, the Internal Consistencies were assessed. The value of Normalized Cronbach's alpha was of 0.8, in line with the minimum value of 0.7 suggested by Cortina (1993).

Findings

All the after sales items were positively perceived and customers were extremely satisfied. In fact all the elements have an average mean above 8, except for quality over price which received an average mean of 7.5 to ten. The item which receive the highest satisfaction is personnel courtesy (M=9.06).

Indeed, the overall satisfaction perceived by customer for the after sales experience is very high (M= 8.586) and the same happens for the willingness to report their experience to other people, as the likelihood to widespread word of mouth is on average 8.576.

The first regression analysis focused on the impact of several after sales intangibles elements on the overall customer satisfaction perception (Table 2). Results show that some of these elements positively affect the evaluation of customer satisfaction.

This is the case of welcoming activities, the personnel courtesy, the quality of the service over its price and the service lead time. It is almost significant the contact service perception ($\beta= 0.095$, p-value= 0.071). These elements belong to the *process* and *people* Ps of service marketing, while the elements belonging to the *physical evidence* of the 3Ps of service marketing (in our case the customer waiting area and the documentation quality), seem not affecting the overall satisfaction.

TABLE 2: REGRESSION ANALYSIS FOR CUSTOMER SATISFACTION

	ESTIMATE	STD. ERROR	T VALUE	PR(> T)
Intercept	-0.278	0.426	-0.653	0.514
Welcoming	0.114	0.054	2.097	0.037*
Customer waiting area	0.070	0.044	1.600	0.111
Personnel expertise	0.032	0.070	0.457	0.648
Personnel courtesy	0.303	0.069	4.371	1.98e-05 ***
Contact Service	0.095	0.052	1.814	0.071
Documentation quality	0.015	0.032	0.047	0.743
Quality versus price	0.256	0.033	7.572	1.31e-12 ***
Service lead time	0.157	0.037	4.221	3.69e-05 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
 Residual standard error: 0.6383 on 201 degrees of freedom
 Multiple R-squared: 0.7297, Adjusted R-squared: 0.7189
 F-statistic: 67.83 on 8 and 201 DF, p-value: < 2.2e-16

Regarding the impact of after sales service on the customer's willingness to recommend the company to other people, the courtesy of personnel positively affects customer' word of mouth (Table 3). In addition the contact service plays a positive role in influencing the willingness to widespread positive word of mouth from customers about their after sales experience. The quality of the service compared to its price and the time of service delivery still represent the most important elements for customers. This is confirmed both for their impact on overall satisfaction and word of mouth.

TABLE 3: REGRESSION ANALYSIS FOR WORD OF MOUTH

	ESTIMATE	STD. ERROR	T VALUE	PR(> T)
Intercept	-0.526	0.654	-0.804	0.422
Welcoming	-0.018	0.083	-0.219	0.827
Customer waiting area	0.048	0.067	0.711	0.477
Personnel expertise	0.108	0.107	1.003	0.317

Personnel courtesy	0.270	0.106	2.541	0.011 *
Contact Service	0.171	0.080	2.119	0.035 *
Documentation quality	0.009	0.072	0.013	0.989
Quality versus price	0.311	0.051	5.998	9.16 e-09 ***
Service lead time	0.188	0.057	3.308	0.001 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
Residual standard error: 0.9789 on 201 degrees of freedom
Multiple R-squared: 0.5635, Adjusted R-squared: 0.5461
F-statistic: 32.44 on 8 and 201 DF, p-value: < 2.2e-16

Then, our study confirms the relationship between customer satisfaction and word of mouth. In fact, they are highly and positively correlated ($r= 0.714$) and customer satisfaction impact on the propensity of customer to widespread word of mouth ($\beta= 0.861$, $p\text{-value}= 0.0001$).

Conclusion and implication

The automotive industry is one of the most competitive industries in the world, probably one of the most changed industry sector in the last decade. Moreover in Europe, competition is increasing due to market liberalization actions taken by the European Commission and due to globalization and rising customer demands. Automotive companies have a tough time to compete with products only, therefore many firms turn to services as a means to achieve strategic advantages. This trend, known as service infusion into manufacturing, servitization, tertiarization and transition to service-led business can be observed in the automotive industry as well (Godlevskaja, Jos van Iwaarden and Ton van der Wiele, 2011).

Our study contributes to understand the role and the impact of after sales service, based on the service quality perception. In particular we investigated the role of the 3 Ps of service, on overall satisfaction and word of mouth. Results show as the welcoming process, the personnel courtesy and the quality of service (over price and the quality of lead time) represent drivers of the overall satisfaction. On the other hand, customers are willing to recommend the service providers when they are highly satisfied with regards to personnel, contact service, quality versus price and the lead time.

TABLE 4: THE IMPACT OF AFTER SALE EXPERIENCE ON SATISFACTION AND WOM

Welcoming	Customer waiting area	Personnel expertise	Personnel courtesy	Contact Service	Documentation quality	Quality versus price	Service lead time	
<input checked="" type="checkbox"/>	SATISFACTION							
<input checked="" type="checkbox"/>	WORD OF MOUTH							

The main limitation of the study is that we focused only on one car dealer of one industry and further research could expand this study in other industries comparing the after sales experience.

References

Contact Authors for the full list of references.

**Innovation Propensity and Performance in Tourism Industry: the Mediated Role of Trust
in Public Authorities and Market Structure Perception**

Giacomo Di Foggia, Giacomo.difoggia@unimib.it
Università di Milano-Bicocca, IT

Innovation Propensity and Performance in Tourism Industry: the Mediated Role of Trust in Public Authorities and Market Structure Perception

Abstract

Based on an international survey of 674 firms based in Italy, France, UK, Germany and Spain, this paper is aimed at analysing the relation of firms' innovative behaviour and performance. This study is based on a mixed methods research (MMR), therefore, it relies on both theoretical assumptions and statistical techniques and methodologies, precisely structural equation modelling (SEM). Considering the effects of the trust in public authorities and the market assessment, the mediating effect of NSD plays a sound positive role on performance. NSD oriented firms take advantage from the "competitive market dynamics" by searching, developing and transforming new ideas into business, launching new or updating existing services, thus enhancing their offer. The models discussed constitute the novelty of this research as most prior empirical research investigating mechanisms through which some factors affect firm performance diverges in terms of methodology, population and purpose.

Introduction

Current global crisis has uncovered weaknesses in the economic and business governance framework of many countries worldwide. Many European countries were used to resort to their monetary sovereignty to boost their exportations. However, European monetary union has prevented such practices. Thus, other policies have lately become more and more important among decision makers and business. It is widely recognised that innovation activities are major determinants of competitiveness and economic development of territories (Porter & Ketels, 2003). Innovation activities also play a key role in the competitiveness of firms, to this extent, Chesbrough (2010) sheds light on business model innovation; the author provides a concise taxonomy of barriers that prevent proactive innovative business models and opportunities that innovation can generate. Among the vast field of innovation studies, attention on New Service Development (NSD) is increasing. However, most of studies in this area have analysed manufacturing products and industry; in fact NSD stems from new product development (NPD). A remarkable corpus of literature suggests innovation-related issues to succeed in such a complex environment, among others (De Jong & Vermeulen, 2003; Dwyer & Edwards, 2009; Ottenbacher & Harrington, 2010).

In this study we investigate the effects of a set of factors on performance by understanding the role of NSD as a mediator element. Since both available literature and data provided by official entities lack of specificity, we have preferred to conduct a survey to collect most of the empirical information. We rely on both theoretical assumptions as well as statistical techniques and methodologies. Also, we perform a deep literature review to design and fine-tune the questions to propose in an effort to gain reliable information. Provided the nature of this study, we speculate that the joint employment of quantitative and qualitative methods, can guarantee a deeper understanding of the phenomena we investigate. The main statistical tool we use is known as "Structural equation modelling" or SEM since this approach complies with our scope: (i) hypotheses concerning relations between variables (latent or observed), see Hoyle (1995), (ii) develop and test a theoretical network (Rigdon, 1998) and (iii) verify conceptualised patterns among a set of data we use as observed variables. The remainder of this paper is organised as follows: firstly, an overview of the problem is provided, this is done by introducing major forces that, although not investigated in the proceeding of the study, concur to undermine the sector development. After that, the theoretical framework is presents and major concepts defined. Then we analyse previous literature and present the methodology, the research design and process. After that we present the main results and some conclusive remarks.

Framework

FIGURE 3 indicates how selected latent variables (ELVs) affect the expressed performance with and without the mediating role of innovation propensity, i.e. NSD proxy. The same figure also sheds light on the impact of the

mentioned selected variables on innovation propensity. We a priori assume which variables (and the directions) affect others according to the hypotheses. Accordingly, SEM is used as a confirmatory tool.

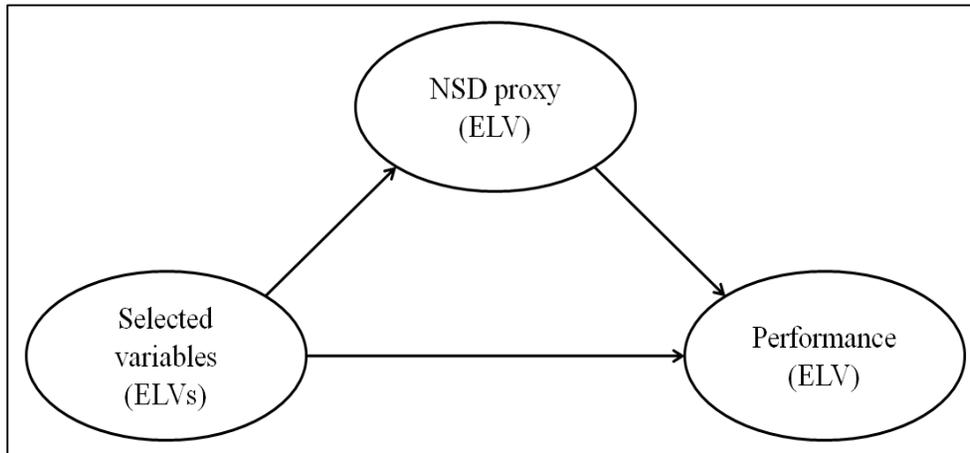


FIGURE 3: FRAMEWORK OF RESEARCH HYPOTHESES

Source: Own elaboration

Literature review

A great deal of studies have been published with regard to what competitiveness is or focusing on what factors drive or prevent it. No exception for tourism. Competitiveness and performance of tourism industry have been widely investigated since the identification of tourism as a major component of modern economics. However, at the time of writing no consensus or frameworks result to be available to address how they shall be appraised (Hong, 2008). To this regard, Gooroochurn & Sugiyarto (2005) propose an approach for evaluate tourism performance relying on some indicators – price, business openness, technology capability, quality of the infrastructure, education and human resources, social and economic development, environment. Di Foggia & Lazzarotti (2013) focus on local development policies as performance and competitiveness enablers. In a recent work Dwyer & Edwards (2009) underscore the changes occurring in the environment and the challenges they generate for management. Considering the global competition, industry and governments shall cooperate as a system in order to fine-tune the offer and enhance competitiveness. Problems however arise when the government level struggles in producing effective products, services and policies. Public authorities (the State) have essentially the following macro-roles: (i) Protect the freedom of individuals, redistribute resources and intervene in so-called ‘market failures’, researching the outcomes of allocation efficiency that cannot be achieved through the normal functioning of the market (Arrigo & Di Foggia, 2013). We argue that the perceived inefficiency of public authorities with productive responsibilities impacts on firms performance because of the decreasing trust. Switching to the new service development (NSD), a great deal of literature on the economics of NPD and NSD focuses on the integration of new business models (Zott, Amit, & Massa, 2011) and on economic assessment of projects (Caron, 2013). In fact, a development process can also be a viable tool for forecasting, especially getting information from what is commonly known as sensitivity analysis. Innovation in tourism industry has been widely documented by scholars of different fields. Hall (2009) doesn’t find significant difference between tourism and other sectors in terms of efforts toward innovation; instead from the analyses of the British industry in the case of Evangelista (2000) and of the Danish industry in the case of Christensen (2008) emerges that tourism undertakings’ innovativeness level lies below the average of other sectors they consider. Results of the study conducted by Miles (2008) champion the second theory, in fact the author finds out that innovation level in hospitality industry is 5% lower than other sectors: 20% against 25% of firms carry out a form of innovation action. Switching to the determinants, it is useful to mention the study of Sundbo *et al.*, (2007) since they propose theoretical

framework meant to measure the inclination toward innovation; as widely confirmed by literature related to other sectors, size, professionalism of employees and entrepreneurship inclination play a crucial role and are positively correlated with innovation. Considering the typology of innovation, Jacob *et al.*, (2003) argue non-technological innovations are more frequent than technological ones. Some scholars have investigated the factors that lead to successful services in tourism, among others Hjalager (2010) surveys innovation typologies and enabling factors while Ottenbacher (2007) focuses on success factors. A recent study performed by Dwyer and Edwards (2009), and focused on strategic management within hospitality sector, provides key important elements that and professionals of tourism organisations should consider in order to minimise the risks of drifts in management. An in-depth cataloguing of different types and levels of innovations in tourism that produced by Hjalager (2010). Although service development studies stem from those related to the development of products, new service development (NSD) has recently emerged as an independent topic. Services have characteristics that products typically don't have (inseparability, heterogeneity and perishability) as Jaw, Lo, & Lin (2010) suggest. As a tool for this study we inspired to a linear or waterfall new service development model to represent a proxy of innovation attitude. According to Bullinger (2003), these frameworks are featured by a sequence of phases and each step embeds a set of activities and routines.

Research design and appropriateness

This study is based on a mixed methods research (MMR). Therefore, we rely on theoretical assumptions as well as statistical techniques and methodologies. Since no suitable data were available to conduct the analyses, we made use of a deep literature review to design and fine-tune the questionnaire in an effort to gain reliable information. Provided the nature of this study, we speculate that the joint employment of quantitative and qualitative methods can guarantee a deeper understanding of the phenomena we investigate. We intend to measure what influence some specific factors have on the attitude to innovate firstly and performance subsequently. SEM can be summarised as a broad statistical approach that can be used to testing hypotheses about relations (casualty of correlation) between different kind of variables: i.e. observed and latent; to this extent the work of Hoyle (1995) provides a comprehensive review. To the same token, Rigdon (1998) describes SEM as a methodology for developing, measuring and testing a hypothetical set of connections among variables, his work specifically applies to business research. Particularly we make use of SEM to tests pattern of relationships, previously conceptualised between variables with the aim of modelling the relationships among factors both external and internal to the firms that compose our sample, see the work of Mac Callum & Austin (2000), mostly concentrated on psychology issues. Appropriateness of the research is confirmed by both research questions and lack of literature linking innovation process and performance in tourism using SEM.

Population

The analysis is based on an international survey of 674 firms (total sample 7000, response rate 9.6%) located in Italy, France, UK, Germany and Spain using a web-based data acquisition approach. The firms are segmented by NACE REV. 2 (mainly 55, 56, 79). Firms are located in France (11.3%), Germany (6.2%), Italy (2.4%), Spain (13.6%), UK (16.5%), Italy (50%). The questionnaire is comprehensive, in fact it comprehends both (i) open questions and (ii) closed questions. Most of the variables are built from items (or observed variables) classified as Likert-type therefore collected on an ordinal basis (from 1 to 7). Even if there are impending problems in using SEM with ordinal values: e.g. the estimation method that is ML by default, there are examples of first-class analyses with Likert scale items (Kline, 2011).

TABLE 8: LIST OF CODIFIED SURVEY QUESTIONS

Code	Description	Obs	Min-Max
nsd1	Brainstorming sessions	674	1-7
nsd2	Systematic collection & evaluation of new ideas	674	1-7
nsd3	Differentiation of service from competitors' offer	674	1-7
nsd4	Trade-off analysis of projects (benefits & disadvantages)	674	1-7

nsd5	Cost and revenue forecasting analysis	674	1-7
nsd6	Early analysis of price placement (hypothesis on best prize)	674	1-7
nsd7	Precise definition of service characteristics	674	1-7
nsd8	Client consultation (feed-back)	674	1-7
nsd9	Service customisation possibility	674	1-7
nsd10	Measure effectiveness through internal trial (staff)	674	1-7
nsd14	Alignment to market leader price	674	1-7
i5	Cooperation with public and local administration	674	1-7
ex1	Market intense competition based on price	674	1-7
ex2	Market intense competition based on quality	674	1-7
ex3	Products omogeneity	674	1-7
ex4	The government stimulates innovation projects	674	1-7
ex5	The government fosters collaboration between companies	674	1-7
ex6	The government fosters fair competition	674	1-7
ex7	Clear legislation in force, laws and market rules	674	1-7
ex8	Compliance with bureaucratic procedures is straightaway	674	1-7
ex9	Government implements policies in support of industry	674	1-7
p1	Expanded portfolio of services (new services)	674	1-7
p2	Improved the quality of existing services	674	1-7
p3	Improved production or delivery process for services	674	1-7
p5	Strengthened market share	674	1-7
p7	Stimulated the production of ideas (from staff)	674	1-7
p8	Increased positive client's feedback	674	1-7
p9	Increased our skills and competencies	674	1-7
p10	Increased our online reputation and presence	674	1-7
p11	Enhanced the knowledge of the markets	674	1-7

Research questions and hypotheses

In the first stage we investigate (i) the direct impact of the latent exogenous variables on the performance, (ii) the effect on NSD on performance and (iii) the total effect given the mediation of NSD. In the second stage we reiterate our models to compare groups (ITA-EUR).

Research questions:

- I: Do the mentioned variable effect the innovation propensity?
- II: Do the mentioned variables directly influence the performance?
- III: Is the impact of the mentioned variables strengthened by the mediation of innovative attitude?
- IV: Are there any differences among Italian and European firms?

Hypotheses:

- I: H_0 a positive relationship between LVs and Performance exists, H_1 otherwise;
- II: H_0 there is a positive relationship between LVs and innovation, H_1 otherwise;
- III: H_0 Service innovation and performance are positively linked, H_1 otherwise;
- IV: H_0 the impact of LVS on the performance is strengthened by the mediating role of innovation, H_1 otherwise.

- V: H_0 there is no difference between Italian and European firms, H_1 otherwise;

Results and discussion

SEM is aimed at assessing relationships among latent and measured variables (latent variables can exist at more levels, e.g. in higher order models), and this is very important since the interest on interaction effects between measured and latent variables has dramatically increased (Henseler & Chin, 2010). SEM represents a key method in testing hypotheses on the effect of latent variables on measured one and vice versa (Hair, Sarstedt, Ringle, & Mena 2012) and has become more and more accepted among scholars of social and managerial sciences. One main goal of SEM is to measure the effects: direct, indirect and total. It could be demonstrated that, the total effect of a variable on another is made by a direct effect (there are no other overruling variables) and mediating effect, i.e. the indirect effect through one or more involved variables. As precisely explained by Baron & Kenny (1986), with mediator we can define a variable that intervene in the pattern (influence) between a predictor and a variable identified as output (dependent). The analysis of the mediation try to identify the path that leads from independent variables to a dependent (Muller, Judd, & Yzerbyt, 2005). Thus, considering a model in which a mediation relation occurs, the first variable (predictor) shall cause the second (mediator) while the latter, in turn finally causes the third (outcome) variable (Wu & Zumbo, 2008). This is the reason why, according to Heene, Hilbert, Draxler, & Ziegler (2011), it is thought to be one of most used methodology for validating complex constructs. SEM has also gained popularity in T&T research (Nunkoo, Ramkissoon, & Gursoy 2012). Higher-order CFA models are meant to characterise hypotheses about relations (with a hierarchical order) among constructs. This is possible with the specification of what are called, see Acock (2013) “higher-order factors”, this is viable if a causal effect from the higher to the lowers exists.

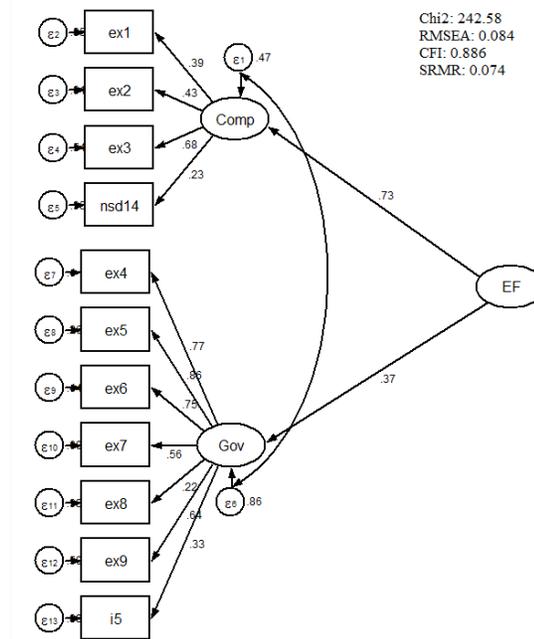


FIGURE 4: EXTERNAL FACTORS (HIGH-ORDER CFA)

Source: own elaboration

FIGURE 4 presents the hypotheses that “Comp” and “Gov” are measured by the respective items (see the chapter on measurement component) and, like the previous model, each first-order factors has, in turn, a direct cause

(and an error). The cause is the EF and represents a proxy of external factors. From the results of this model positive and significant effects emerge 0.37 ($p < 0.1$) of the external factors on “Gov” and 0.73 ($p < 0.05$) on “Comp”.

The model

Our purpose is to apply a set of items to generate a measure, according to the objective. To do this we firstly perform a PCFA this could be an effective way to identify items to be eventually erased. After the first step we perform a CFA, we assume that the latent variables accounts for the items we selected. Since there are no missing data, we use the maximum likelihood estimation type (ml) as estimation method.

The first of the two analyses measurement component (bisesdes innovation propensity and performance) in the evaluation of the competition intensity “Comp”. This is a proxy of the market structure as perceived by firms “Comp” → ex1, e2, ex3, nsd14 (chi2 8.292, RMSEA0.068, CFI 0.956, SMRM 0.025). The second measurement component is the trust and assessment of public authorities “Gov” → ex4, ex5, ex6, ex7, ex9, i5, ex8: (chi2 65.8, RMSEA0.074, CFI 0.964, SMRM 0.034). Actual performance of government is the key to understanding firms' confidence in government. Institutions that perform well are likely to elicit the confidence of firms; those that perform badly or ineffectively generate feelings of distrust and low confidence. People recognize whether government or political institutions are performing well or poorly (Tyler, T. R., 2001). The measurement component aimed at measuring the innovation propensity is “Sinno” → nsd1-nsd10: (chi2 155.86, RMSEA0.072, CFI 0.957, SMRM 0.033).

The revealed performance is measured using “Per” → p1, p2, p3, p5, p7, p8, p9, p10, p11 as a proxy (chi2 80.25, RMSEA0.054, CFI 0.977, SMRM 0.026).

Chi2: 740.674
 RMSEA: 0.058
 CFI: 0.915
 SRMR: 0.047

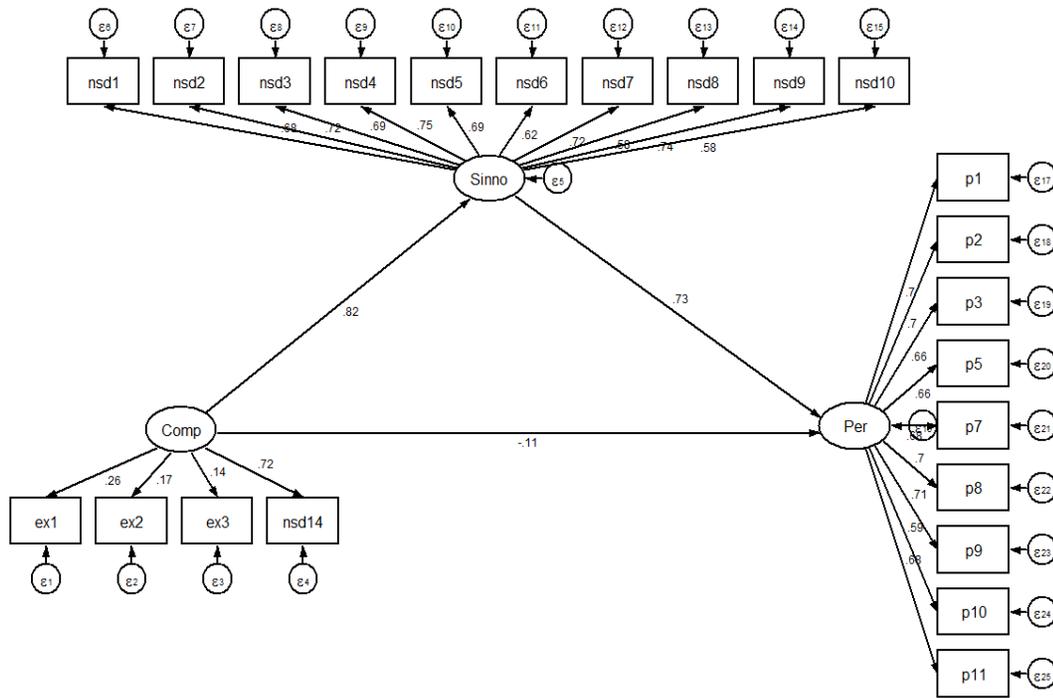


FIGURE 5: SEM MODEL (COMP – INNOVATION - PERFORMANCE)
 Source: Own elaboration

Chi2: 903.58
 RMSEA: 0.055
 CFI: 0.916
 SRMR: 0.071

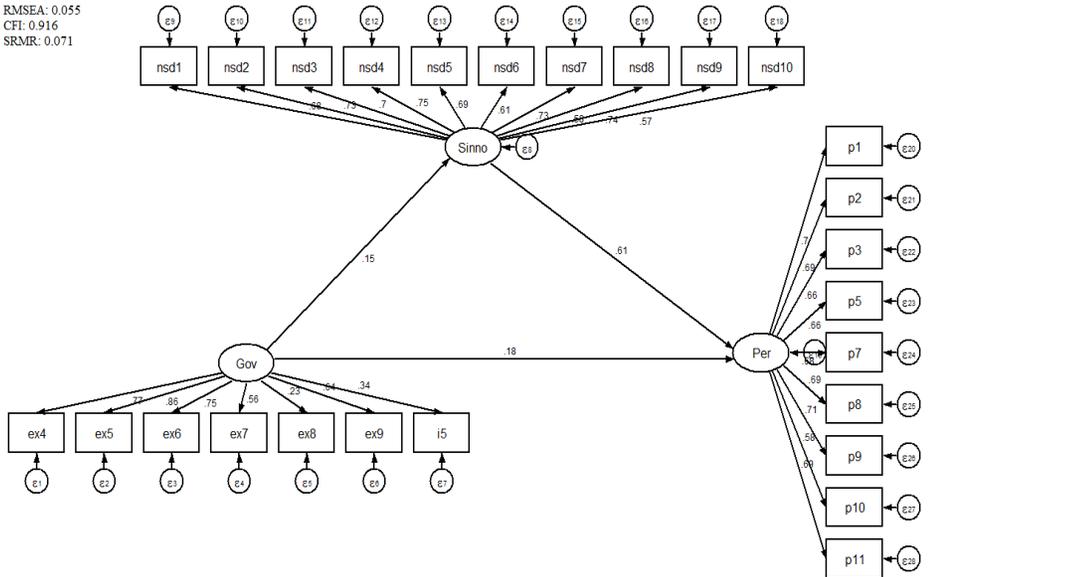


FIGURE 6: SEM MODEL (GOVERNMENT – INNOVATION - PERFORMANCE)

Source: Own elaboration TABLE 9: STANDARDISED EFFECT OF COMP ON PERFORMANCE

TABLE 10: STANDARDISED EFFECT OF COMP ON PERFORMANCE BY GROUP

Outcome	Direct effect	Indirect effect	Total
Sinno			
<i>Comp → Sinno</i>	0.82***		0.82***
Performance			
<i>Comp → Performance</i>	-0.11***	0.60***	0.49***
<i>Sinno → Performance</i>	0.73***		0.73***

Source: Own elaboration

TABLE 11: STANDARDISED EFFECT OF GOV ON PERFORMANCE

Outcome	Direct effect	Indirect effect	Total	Group
Sinno				
<i>Comp -- Sinno</i>	0.82		0.82	All
<i>Comp -- Sinno</i>	0.74		0.74	Ita
<i>Comp -- Sinno</i>	0.9		0.9	Eur
Performance				
<i>Comp -- Performance</i>	-0.11	0.60	0.49	All
<i>Comp -- Performance</i>	-0.01	0.47	0.46	Ita
<i>Comp -- Performance</i>	-0.39	0.89	0.50	Eur
<i>Sinno -- Performance</i>	0.73		0.73	All
<i>Sinno -- Performance</i>	0.64		0.64	Ita
<i>Sinno -- Performance</i>	0.99		0.99	Eur

Source: Own elaboration. NB: all the standardised results have a sig. level (p<0.001) - asterisk omitted.

Outcome	Direct effect	Indirect effect	Total
Sinno			
<i>Gov → Sinno</i>	0.15***		0.15***
Performance			
<i>Gov → Performance</i>	0.18***	0.08***	0.26***
<i>Sinno → Performance</i>	0.61***		0.61***

Source: Own elaboration

TABLE 12: STANDARDISED EFFECT OF GOV ON PERFORMANCE BY GROUP

Outcome	Direct effect	Indirect effect	Total	Group
Sinno				
<i>Gov -- Sinno</i>	0.15		0.15	All
<i>Gov -- Sinno</i>	0.23		0.23	Ita
<i>Gov -- Sinno</i>	0.18		0.18	Eur
Performance				
<i>Gov -- Performance</i>	0.18	0.09	0.27	All
<i>Gov -- Performance</i>	0.15	0.13	0.28	Ita
<i>Gov -- Performance</i>	0.15	0.12	0.27	Eur
<i>Sinno -- Performance</i>	0.61		0.61	All
<i>Sinno -- Performance</i>	0.58		0.58	Ita
<i>Sinno -- Performance</i>	0.65		0.65	Eur

Source: Own elaboration. NB: all the standardised results have a sig. level (p<0.001) - asterisk omitted.

Taking into account the data referring to the standardised effects of the measure “Gov” on the performance, we can infer the share of effects attributable to direct or indirect impact. Specifically, the total impact equals 0.26 ($p < 0.001$) this is a relatively small effect provided its statistical robustness. Since the direct effect is 0.18 ($p < 0.001$) we can say that 69.2% of evaluation and trust of public authorities effects on performance are direct after controlling for the propensity to innovate and develop new services, while 30.8% of the “Gov” effects on the overall performance result to be indirect. Considering the Italian group, the share of direct impact of evaluation and trust of public authorities on performance is (0.15 $p < 0.001$) or 52.9%, while the remaining (0.13 $p < 0.001$) or 47.1% represents the share of indirect effect, i.e. the mediation of the propensity to innovate and develop new services. Therefore even controlling for the inclination toward innovation and service development, the direct effect is the dominant component. Instead, considering the European group, the share of direct impact of the evaluation and trust of public authorities on performance is 56.2%, while the remaining 43.8% represents the share of indirect effect.

Conclusion

There is an inadequate research attention which considers the simultaneous interrelationships among the analysed latent variables, NSD and performance within the context of tourism industry. To shed light on the problem, this study has raised interrelated questions regarding the role of external factors: the government institutions and competition assessment. We provide new evidence on the mediation role of the new service development process used as a proxy of innovation attitude. In an effort to explain more in the detail the hypothetical peculiarities of Italian firms we have reiterated our model in two separated groups: one embedding the Italian firms and the other gathering data obtained by respondents located in Germany, France, UK and Spain. Despite the availability of academic literature, we found a lack of statistics related to Italy consistently with OECD (2011). One must consider that the available information does not accurately reflect the general performance of the sector. To this extent, with the aim of unveiling both weaknesses and latent opportunities we designed a web-based survey to obtain data. Firstly, we concentrated on the direct influence of the latent (exogenous) variables on the expressed performance, on their effect on the innovation performance and on the total effect given the mediation of the service development process. Precisely, the selected exogenous latent variables stand for the judgment of the market they operate in “Comp” and the quality as well as the effectiveness of public authorities “Gov”. The endogenous variables are a proxy of the innovation process “Sinno” and the expressed performance “Per”. After that we reiterated the model to identify differences in two groups respectively. Italian and European firms. To this extent we managed to explain weather and how the mentioned variables influence the propensity to innovate, the intensity of their direct effect on the performance and if their impact is strengthened by the mediation of innovation attitude.

Moreover, we unveiled the difference that occur between the Italian and European sample. A peculiar figure emerged from the standardised effect of the market characteristics; in fact one may note that there is a slight but consistent and significant negative relation among the perception on competition and the performance. This is consistent with the assumptions, in fact one possible interpretation of this coefficient is the following: some firms are used to operate in a non competitive or static market; however, as highlighted in different sections, the market has changed and at the time of writing is being changing rapidly. Some firms are losing their contact with the market arena and experiencing or prone to experience difficulties (Dwyer and Edwards, 2009). The interpretation of this value is straightforward: firms that adopt a service innovation framework of have an innovative attitude take huge advantage from competition dynamics and tend to succeed. Considering the measure “Gov”, we speculated that the total impact equals 0.26 ($p < 0.001$). Since the direct effect is 0.18 ($p < 0.001$), for this reason 69.2% of evaluation and trust of public authorities effect on performance is direct while 30.8% indirect. The results of the models have confirmed that factors external to the firms, trust in public authorities as well as the perceived market structure play a remarkable role on performance. Histogram 1 embeds data of total, direct and indirect effects controlling for a mediation of NSD (it can be demonstrated that provided the indirect effect of the exogenous variables used in this study on the performance are given computing their direct effects times the NSD’s direct effect, see Acock (2013) pp.60 for an extensive explanation.

HISTOGRAM 1: EFFECTS ON PERFORMANCE



Source: own elaboration

From the histogram one can see the negative sign of the direct effect of “Comp”. Provided the robustness of the casualty assumption and the goodness of fit of both the measurement and path models (results omitted since showed in the dedicated paragraphs) a strong statement emerges: the higher the perception of completion level (even in terms of unfair competition, a widely diffused sentiment as stated in the introduction section dedicated to the respondents open ended questions) the lower the expressed performance. This is typical of a dynamic industry in terms of demand elasticity and business innovation (Hjalager, 2002; Kumar, 2013; Ottenbacher, 2007; Dwyer & Edwards, 2009). There is a clear trend: the mediating effect of NSD plays a sound positive role on performance. NSD oriented firms take advantage from the “competitive market dynamics” by searching, developing and transforming new ideas into business, launching new or updating existing services, thus enhancing their offer. Economic theory on industrial organisation, specifically studies on structure, conduct and performance (SCP) predicts this market outcome, see Carlton & Perloff (2005) for a complete review. This work has also implications for policy makers. The Italian assets remain an element of competitiveness because they exert a strong pull on tourists, but the success of tourism products increasingly depends on the ability to act simultaneously on all the levers. This work has many limitations: extensibility, methodology and resources respectively. There is robust scepticism about the worth of online surveys’ responses (Lefever & Matthiasdottir, 2007). Besides the introduced limitations derived from the assumptions and from the methodology, there is a specific issue related to the variable that encompasses the trust and assessment of the market. In fact the following alpha result: test scale of the composite variable “Comp” (Cronbach's alpha 0.461). However we decided to maintain this variable on the light of other assessments. Other items could have been added to improve the scale reliability, however we have preferred to fix on the four reported items.

References

- [1] Acock, A.C. (2013). *Discovering Structural Equation Modeling Using Stata*. Stata Press. Stata Corp LP.
- [2] Arrigo, U., & Di, G. (2013). *State Aid to Railways in Europe*. Milan (IT): Di.SEA.DE, University of Milano-Bicocca. Retrieved from <http://hdl.handle.net/10281/50589>.
- [3] Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.
- [4] Bullinger, H. J., Faehnrich, K. P., & Meirena, T. (2003). Service engineering - methodical development of new service products. *International Journal of Production Economics*, 85, 275 - 287.
- [5] Carlton, D. W., and Perloff, J. M. (2005). *Modern industrial organization, fourth ed.* Prentice Hall, Pearson.
- [6] Caron, F. (2013). *Quantitative Analysis of Project Risks*. In *Managing the Continuum: Certainty, Uncertainty, Unpredictability in Large Engineering Projects* (pp. 75-80). Springer Milan.
- [7] Chesbrough, H. W. (2010). Business model innovation: opportunities and barriers. *Long range planning*, 43(2), 354-363.
- [8] Christensen, J. L. (2008). *Innovation and management in North Jutland tourism firms*. Paper for the RSA-workshop, November 28. Aalborg University: Department of Business Studies.
- [9] De Jong, J.P.J., Vermeulen, P.A.M., (2003). Organizing Successful New Service Development: A Literature Review. SCALES-paper N200307, EIM Business and Policy Research. Retrieved on: www.entrepreneurship-sme.eu/pdf-ez/N200307.pdf, latest access April 15, 2013.
- [10] Di Foggia, G., and Lazzarotti, V. (2013). “Business Implications of Local Development Policies: the Case of Dubai and the Travel Industry”, *Theoretical and Empirical Research in Urban Management*, 8(1), 5–18.
- [11] Dwyer, L., and Edwards, D. (2009). Tourism Product and Service Innovation to Avoid “Strategic Drift” 1. *International Journal of Tourism Research*, 11, 321–335. doi:10.1002/jtr
- [12] Evangelista, R. (2000). Sectoral patterns of technological change in services. *Economics of Innovation and New Technology*, 9, 182 - 221.
- [13] Gooroochurn, N., and Sugiyarto, G. (2005). “Competitiveness indicators in the travel and. Tourism Economics, Vol. 11 No 1, pp 25–43.
- [14] Hair, J. F., Sarstedt, M., Ringle, C. M., and Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.
- [15] Hall, C. M. (2009). Innovation and tourism policy in Australia and New Zealand: never the twain shall meet? *Journal of Policy Research in Tourism, Leisure and Events*, 1 1, 2 - 18.
- [16] Heene, M., Hilbert, S., Draxler, C., Ziegler, M., and Bühner, M. (2011). Masking misfit in confirmatory factor analysis by increasing unique variances: A cautionary note on the usefulness of cutoff values of fit indices. *Psychological methods*, 16(3), 319.
- [17] Henseler, J., and Chin, W. W. (2010). A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. *Structural Equation Modeling*, 17(1), 82-109.
- [18] Hjalager, A.M. (2010). A review of innovation research in tourism. *Tourism management*, 30, (1), 1-12.
- [19][18] Hjalager, A. M. (2002). Repairing innovation defectiveness in tourism. *Tourism management*, 23, 465-474.
- [20][19] Hoyle, R. H. (1995). *The structural equation modeling approach: Basic concepts and fundamental issues*. In *Structural equation modeling: Concepts, issues, and applications*. Thousand Oaks, CA: Sage Publications, 1-15.
- [21][Hong, W.-C. (2008). “Competitiveness in the Tourism Sector. Heidelberg: Physica-Verlag.
- [22] Jacob, M., Tintorè, J., Aguiló, E., Bravo, A., and Mulet, J. (2003). Innovation in the tourism sector: results from a pilot study in the Balearic Islands. *Tourism Economics*, 9, (3), 279 - 295.

- [23]Jaw, C., Lo, J. Y., and Lin, Y. H. (2010). The determinants of new service development: Service characteristics, market orientation, and actualizing innovation effort. *Technovation*, 30(4), 265-277.
- [24]Kumar, V. (2013). Data-driven services marketing in a connected world. *Journal of Service Management*, 24(3), 330–352.
- [25]Lefever, S., Dal, M., and Matthiasdottir, A. (2007). Online data collection in academic research: advantages and limitations. *British Journal of Educational Technology*, 38(4), 574-582.
- [26]Miles, I. (2008). Patterns of innovation in service industries. *IBM Systems Journal*, 47, (1), 115 - 128.
- [27]Muller, D., Judd, C. M., and Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of personality and social psychology*, 89(6), 852.
- [28]Nunkoo, R., Ramkissoon, H., and Gursoy, D. (2012). Public trust in tourism institutions. *Annals of Tourism Research*, 39(3), 1538-1564.
- [29]Tyler, T. R. (2001). Public trust and confidence in legal authorities: What do majority and minority group members want from the law and legal institutions?*. *Behavioral Sciences & the Law*, 19(2), 215-235.
- [30]OECD - Organisation for Economic Co-operation and Development. (2011). *Studies on tourism in Italy*. OECD Publishing, Paris.
- [31]Ottenbacher, M. C., and Harrington, R. J. (2010). Strategies for achieving success for innovative versus incremental new services, *Journal of Services Marketing*, 24, (1), 3–15.
- [32]Ottenbacher, M. C. (2007). Innovation Management in the Hospitality Industry: Different Strategies for Achieving Success. *Journal of Hospitality and Tourism Research*, 31(4).
- [33]Porter, M.E. and Ketels, C.H.M. (2003). Competitiveness: Moving to the next stage. *Strategic Management Journal*, 24, 415-431.
- [34]Rigdon, E. E. (1998). *Structural equation modeling*. In Modern methods for business research, G. A. Marcoulides (editor). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers, 251-294.
- [35]Sundbo, J., Orfila-sintes, F., and Sørensen, F. (2007). The innovative behaviour of tourism firms — Comparative studies of Denmark and Spain. *Research Policy*, 36, 88–106. doi:10.1016/j.respol.2006.08.004
- [36]Wu, D., and B. D. Zumbo. (2008). “Understanding and Using Mediators and Moderators.” *Social Indicators Research*, 87: 367-92.
- [37]Zott, C., Amit, R., and Massa, L. (2011). The business model: recent developments and future research. *Journal of management*, 37(4), 1019-1042.

**Understanding Sequences of Business Interactions and their Influence on Cross-Cultural
Inter-Team and Intra-Team Negotiations**

Cheryl Dowie, Cheryl.dowie@postgrad.mbs.ac.uk

Claudio De Mattos, Claudio.de-mattos@mbs.ac.uk

Oscar De Bruijn, O.de-bruijn@mbs.ac.uk

Manchester Business School, The University of Manchester, UK

Understanding Sequences of Business Interactions and Their Influence on Cross-Cultural Inter-Team and Intra-Team Negotiations

Abstract

Many studies show the lack of cross-cultural competence to be a reason for international business failures. The practice of effective communication will help reduce conflict and potentially increase the number of opportunities for international business. Studies in social sciences have not fully scrutinised the dynamics of face-to-face negotiations, in particular the behavioural dynamics that may generate negative effects on such interactions. The Bales IPA model (1950) is adapted in this study to analyse behavioural patterns in group negotiations. This working paper aims at identifying sequences of interaction that determine the relative impact on the negotiation process, discusses the relevant frameworks in order to develop a conceptual model primarily based on the literature and suggests suitable research methods. In due course, this study will enable the researcher to unveil implications and provide recommendations for negotiations across cultures in general and for cross-border negotiations in particular.

1 Introduction

In today's competitive business world, people from different cultural backgrounds interact with each other regularly. These interactions comprise of both verbal and non-verbal elements. Husbands interact with their wives, employers interact with employees, and children interact with their parents etc. in order to reach a mutual agreement. The stakes are not the same in all these types of interactions. Since interaction is a large subject to explore, this study will be focus on business interactions, where the stakes are much higher since it involves careful preparation and planning.

Negotiation is an important component in these business interactions. A breakdown in the negotiation process could be attributed to different factors. However, many studies have shown that most often these breakdowns in negotiations have risen from differences in national culture (Brett, 2000). While the researcher explores the area of business negotiations in depth, she will also develop a model to further understand how national culture can affect the negotiation process and its outcomes. Additionally, the Bales' Interaction Process Analysis (Bales, 1950; see Figure 1) is adapted in this study, to analyse the behavioural patterns in face-to-face negotiations between teams. The model has been chosen because it is the earliest and most durable systems for examining face-to-face interactions in groups (Bales and Strodtbeck, 1951; Perakyla, 2004). It attempts to identify and capture both verbal and non-verbal behavioural patterns in groups, by using a twelve category typology.

The initial focus of this working paper is to investigate how the Bales' IPA model can be modified and used for coding observations and for the identification of behavioural patterns considering sequences of interactions between and within two teams or groups. A second objective of this paper is to gain a better understanding of the micro-dynamics of cross-cultural negotiations, since cultural differences are known to influence the face-to-face negotiation process. The analysis will consider cultural dimensions from Hofstede (Hofstede, 2005) and from the globe project (House et al., 2004), or more generally, West-East differences. The study aims to further the researcher's understanding of sequences of interaction that are conducive to positive outcomes when individuals of different cultural backgrounds are involved.

This paper has the following sections: Literature Review that links the study to relevant theoretical frameworks and models and the suggested research method section that explains how the use of both the qualitative and quantitative methods can help the researcher to collect and obtain data that will lead to identifying those sequences of interactions that have an impact on successful and unsuccessful business negotiations.

2 Literature Review

The literature review section is divided into four main sections and these are explained below. An in depth understanding of the literature will guide the researcher in answering the main research question, which is, "What

influence does different sequence of interactions have on the effectiveness of cross-cultural business negotiations between different teams?"

2.1 International Business Negotiations

The word "*negotiation*" comes from the Roman word *negotiari*, which means "*to carry on business.*" In modern times, business negotiations can be defined as a voluntary process where two or more parties modify their offers and expectations in order to come closer to each other (Ghauri, 2003). From this definition, we can see that the prime objective of both parties is to reach an agreement that favours either parties or groups involved.

Lewicki et al., 2006, Cellich and Jain, 2004, Fowler, 1986, McCall and Warrington, 1989 have come up with some common characteristics that occur within a business negotiation scenario. They are as follows:

- The negotiations generally occur between individuals within groups or between groups;
- There can be one or many issues that need to be resolved;
- The negotiator can take different positions to respond to a particular issue;
- There will be conflicts of interests between the parties or groups;
- The parties involved negotiate by choice instead of simply accepting what the other party offers;
- A "give and take" approach is adopted. This means that the parties will require modifying their initial needs or demands to accommodate some of the other party's demands;
- The parties or groups prefer to negotiate in order to search for a mutual solution;
- The outcome that is reached might not expected by both parties, but the important point is to reach an acceptable outcome; and
- The success of the negotiation depends on the management of tangibles such as price and intangibles, management of the terms of agreement and other such psychological motivations that either directly or indirectly influences the negotiation process.

Following the above mentioned characteristics, it is evident that negotiation is a complex, problem-solving process where if not handled properly can end up with both parties accepting a jointly inferior agreement (Ghauri, 2003). Some literature use bargaining and negotiating interchangeably (Ghauri, 2003). However, the negotiation process we discuss in this study is different to bargaining and could be called integrative bargaining, which results in a win-win outcome for both parties involved (Ghauri, 2000). Bargaining on the other hand, is more competitive and refers to haggling in a typical marketplace setting, where one party maximises his own benefit at the expense of the other, resulting mostly in a win-lose outcome (Ghauri, 2003).

In business negotiations, parties come together with different preferences, objectives and circumstantial details with an attempt to find a mutual solution that is beneficial to both the parties. The solution achieved should be at least partially satisfactory to both parties. This thus requires the use of the integrative strategy that comprises of compromise, mutual trust and far-sightedness, in order to maintain a productive relationship with the other party (Lewicki, Barry, Minton and Saunders 2003).

The preceding section will describe three essential variables namely, background factors, the negotiation process and the atmosphere, as these contribute to business negotiations in different ways (**Ghauri, 2003**).

2.1.1 Background Factors

Background factors include objectives, the environment, market position, third parties influence and negotiators. These are described below to understand how these play a role in negotiations:

Objectives are different interests that each party achieves successfully for their business. These could be common, conflicting or complementary in nature (Ghauri, 2003). When objectives are common and complimentary, both parties are comfortable in proceeding with the negotiations as this is beneficial to both parties. On the other hand, conflicting objectives have a negative influence on the negotiation process.

The environment could be the social, political and market structural factors that could hinder the environment of both parties independently. The social and political factors influence the process or negotiation while the market structure factors influence the atmosphere within negotiations (Ghauri, 2003). For instance, the number of buyers and sellers in the market determine the alternatives available to both parties and this in turn adds pressure to the parties involved in the negotiation.

Third parties like consultants, sub-contractors or the government can influence the negotiation process as each of their objectives is different. As a result, problems relating to foreign exchange, infrastructure, and employment options etc. could arise (Ghauri, 2003).

Negotiators involved in the negotiation process come with different skill sets and different levels of experience. Additionally their personalities also play an important role in the negotiation process.

For instance, a negotiator with technical background will focus more on the technical details and may pay less attention to the terms of payment and other related details, whereas a negotiator with a business background will focus on the latter issues than on technical details.

2.1.2 Stages of Business Negotiations

According to Ghauri (2003), this process is divided into three stages. Here, a stage refers to a particular part within the negotiation process that includes all the action and communication pertaining to negotiations that are completed within that part, before the parties move on to the next stage.

2.1.2.1 Stage I: Pre-Negotiation

In this stage, the parties or groups that are interested in doing business together contact each other to make tentative offers. According to Ghauri (2003), the pre-negotiation stage is the most important stage when compared to the formal negotiation stages as the parties assess the benefits of entering into a potential negotiation with the other party by gathering information about the other parties' background, their operating environment and infrastructural abilities, their involvement with other parties and their influencers and competitors. They accordingly discuss precautionary measures.

On completion, many countries issue a letter of intent/acceptance at this stage (Ghauri, 2003). In Western countries this is referred to as the 'grant of contract' and merely indicates the desire for the other party to negotiate further (Ghauri, 1986; Lewicki, Litterer, Minton and Saunders 1994).

2.1.2.2 Stage II: Face-to-face Negotiation

At this stage of negotiations, different expectations continue to exist especially amongst parties from different cultural backgrounds. This makes the negotiation process more complex. Differences in each party's culture and traditions are brought to surface at this stage of negotiations, and it thus important to understand and adjust to these cultural differences. According to De Mattos, Sanderson and Ghauri (2002), one of the prominent challenges in cross-cultural business negotiations is the diverse expectations that parties from different cultures have and bring forth to the negotiation table. Also, either party tries not to submit a "final offer" at this stage as the aim of the negotiators is to get into a favourable long-term agreement.

2.1.2.3 Stage III: Post-Negotiation

This stage could result in the final contract being drawn up and signed when the terms of agreement have been agreed upon or could also lead to a renewed face-to-face negotiation based on new terms. In order for the latter to be avoided, it will be best to maintain minutes of the meeting at every stage of negotiations to understand if both the parties have the same understanding of the discussion and exchanges (Ghauri, 2003).

2.1.3 Atmosphere

According to Ghauri (2003), atmosphere is defined as the social environment around which parties interact with each other and how the parties regard each other's behaviour. At each stage of the negotiation, parties are looking for mutual solutions to problems and during this time different characteristics of the atmosphere namely, conflict/cooperation, power/dependence and expectations, take control at each stage (Ghauri, 2003).

Conflict and cooperation are vital characteristics depicted in a negotiation process and the degree of these depends on the objectives put forth by the negotiating parties and the way the parties handle them.

The power/dependence characteristic is closely related to the actual power that either party has on the negotiation process. In other words, if one party has alternatives and other opportunities in the market place, it will indirectly

have the ability to control and influence the negotiation to its favour. However, if both parties perceive equal power, then the power relationship is in balance, though this is not mostly the case within business negotiations. The last characteristic is *expectations* and this is of two types namely, long-term and short-term expectations. Long-term expectations take into account future business prospects for both parties and if these are stronger, the parties will be willing to negotiate further to come to a mutual agreement. On the other hand, short-term agreements are when the parties do not think about the future and move over from one stage of the negotiation process to another with the hope of obtaining a good outcome at each stage. According to Ghauri (2003), expectations develop and change at each stage of negotiation.

2.2 Culture

Culture is one of the factors that impact the negotiation process (Brett, 2000), besides other factors such as language differences, differences in work dynamics, communication problems etc. This section will discuss to what extent cultural differences can impact the negotiation process.

According to Bates and Plog (1976), "Culture is a system of shared beliefs, values, customs, behaviours and artefacts that the members of a society use to cope with the world and with one another and that are transmitted from generation to generation through learning." This definition includes most aspects of culture such as religion, ideologies, patterns of behaviour and works of art. Belief systems are a set of values developed within a culture that affect the behaviour of members of that culture. "Values are a learned set of rules for making choices. These are embedded to create one's own belief system. Acting as guideposts, they teach us what is right or wrong what to strive for and how to live our life" (Rokeach, 1973, p.161).

The cultural dimensions that this study will explore further is high context and low context culture. This dimension will help in analysing the interpretation of the different behavioural scenarios. Though other dimensions can also have an effect on negotiations, this dimension seems to be more relevant for this particular study.

2.2.1 High-Context and Low-Context Cultures

This dimension of culture is important to consider because it considers and has direct implications on how the other party should relies on contextual cues and how much explicit information is enough (Hall and Hall, 1990; Cohen 1991).

According to Hall (1976), "A high context communication message is one in which the information is already in the person, so very little is in the coded explicitly transmitted message. Whereas, a low context communication is one in which the transmitted message needs to be explicitly coded."

Generally people from the West practice direct and explicit communication and are considered low context. On the other hand, communication pattern in Eastern cultures are generally indirect and implicit, with subtle meaning embedded behind many written and spoken words. This is thus classified as high context. People from high context cultures, change very little over time in their habits and communication behaviours and this is because of the cultural and traditional background they come from (Hall, 1976, Adair and Brett, 2004b). People from low context cultures are quite the opposite and less homogeneous in behaviour (Hall, 1976, Adair and Brett, 2004b).

Differences between high context and low context cultures will influence negotiations to a vast extent. Negotiators from high context cultures may be comfortable with low context patterns of communication, whereas negotiators from low context cultures may not be as comfortable with high context patterns of communication (Adair and Brett, 2004b).

These variances in the patterns of communication will ultimately alter how each culture approaches and responds to negotiations, especially when there is a conflict of interest between parties. Further study on high context and low context cultures will provide insight into what people from diverse cultures pay attention to and what they ignore during a negotiation.

2.3 Culture and Communication

According to Beamer and Varner (2008), Language and non-verbal communication are products of culture as these are tools intricately bound up in a cultural process. Though culture is an independent variable, it influences verbal and non-verbal communication, which are dependent variables and these in turn can affect the performance within cross-cultural

teams in either a positive or a negative manner. Thus, during international business negotiations, communication plays a vital role.

In face to face negotiations, individuals experience both verbal and non-verbal communication, since communication is a process through which people exchange information in the form of signs, symbols and also demonstrate different behaviour during such interactions (Adair and Brett, 2004a). Whatever the medium of communication, it is important to communicate in an effective manner as this influences and triggers the behaviour and attitudes of individuals. The reason for such an influence is because communication is culture-dependent and different social groups have different ways of expressing themselves (Adair and Brett, 2004a)

In today's competitive business world, the establishment of strong relationships with people through effective communication will lead to reduced conflict and potentially increase the number of opportunities for international business.

2.4 Bales Interactive Process Analysis

Robert F. Bales, a Professor of Social Relations and the Director at the Laboratory of Social Relations in the University of Harvard, proposed a framework in 1950 called the 'Interaction Process Analysis' (IPA) framework, giving foundations for the study of interpersonal interactions between groups. Here groups refer to work teams, family groups, psychiatrist and patient(s), etc. (Bales, 1950). His typology is based on the idea that there is an orderly sequences of phases aimed at solving a problem and a parallel sequence of phases aimed at communication. The activities of problem solving involve gathering of information, evaluation of the information and the making of decisions based on this (McGrath, 1984). According to him, concentrating on such activities will put a strain on the socio-emotional domain. The three task phases continue, which in turn increases the strain and so an effort is made to counter these strains. Thus, there is an increase in both positive and negative social-emotional functions as the individuals or groups progress through the various phases of a task (McGrath, 1984).

Bales' main area of research was focussed on group observation and measuring interaction processes, where he classified group behavioural patterns into two main areas, namely, task-oriented areas and relationship-oriented areas (Bales, 1950). Several reasons support the choice of Bales' framework. First, the twelve categories developed by Bales for his study (see figure 1), consider both verbal and non-verbal interaction; six categories relate to the task domain and the remaining six relate to the socio-emotional domain. These categories are equally grouped into six main functional problems: problems of orientation, problems of evaluation, problems of control, problems of decision, problems of tension-management and problems of integration. Second, coding the group will help researchers in analysing sequential patterns in group behaviour. This approach used by Bales is thus free from members' own biases as the researcher is able to see the group interactions as a whole and code them into categories based on the behavioural patterns he/she witnesses. Lastly, Bales' framework also allows for the researcher to be present in the environment where the interaction is taking place. This makes the data easier to obtain for quantitative research purposes that may be required for the latter part of the study.

The IPA typology would help in capturing those verbal and non-verbal communicational patterns within teams in order to modify them for maximum effectiveness, so that it could lead to a win-win outcome. It will help functional groups to deal with equilibrium in both task and the socio-emotional domains. Conclusions built from the IPA typology would then be validated with responses obtained from interviews conducted with executives to reaffirm those behavioural patterns that could be used to help with cross-cultural group interactions.

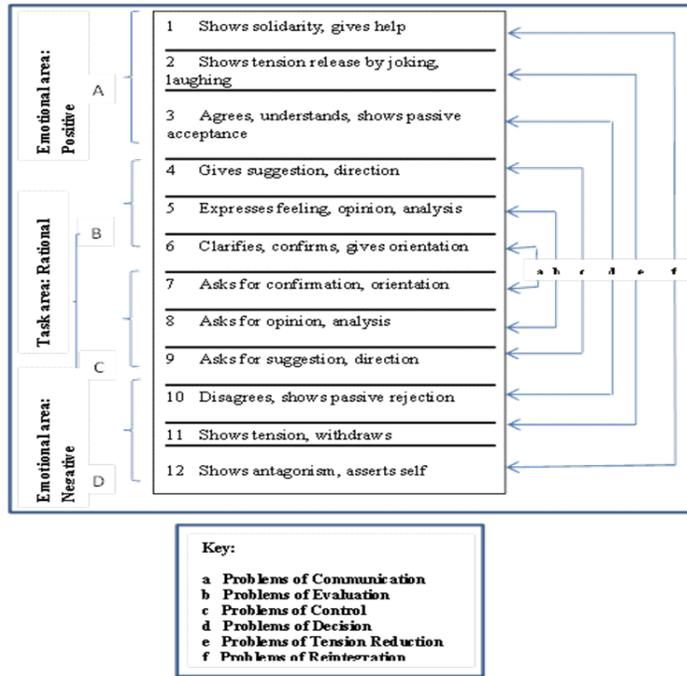


FIGURE. 1: THE SYSTEM OF CATEGORIES USED IN DIRECT OBSERVATIONS AND THEIR MAJOR RELATIONS
 Source: Adapted from Bales, Robert F. 1950. *Interactive Process Analysis*

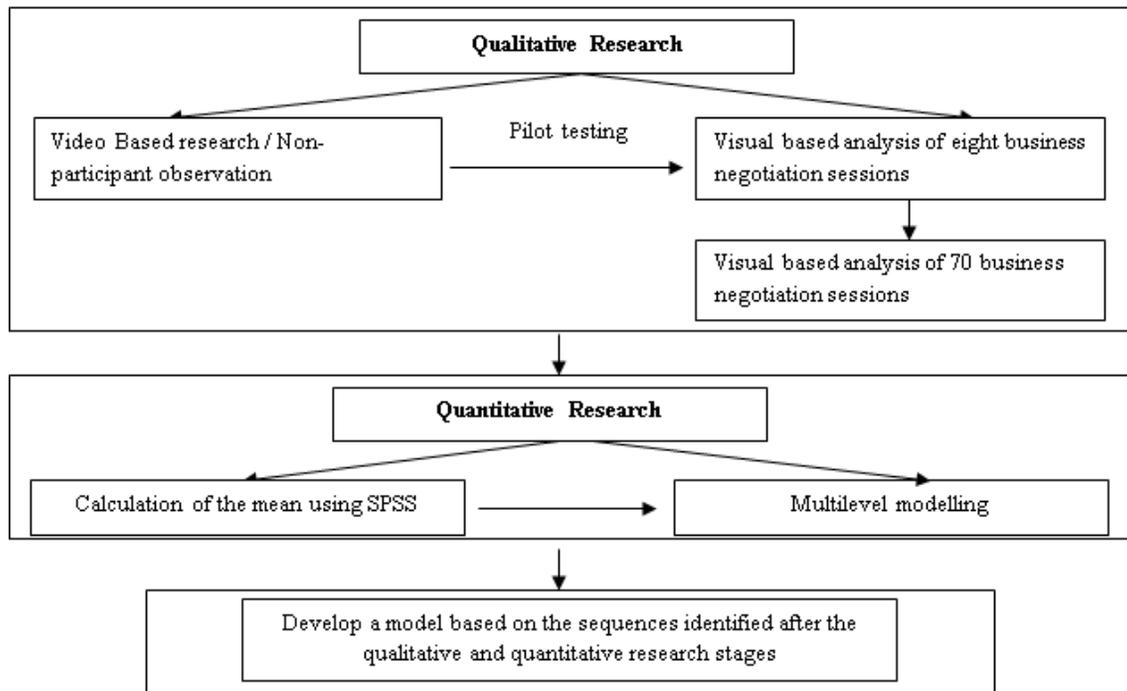
3 Suggested Research Method

The negotiation for this study is a simulation of a British company selling their products in Saudi Arabia. The study will follow a mixed method approach called the triangulation methodology. This entails the use of both the qualitative and quantitative methods.

The study consists of three main stages.

In the first stage, an analysis of a relatively small sample of existing role-play video recordings will be carried out to develop a coding system that enables researchers in the same area of research to obtain the same results in coding at all times. In the second stage, a success index is created, to associate it with each negotiation session. Here, the relationship of specific sequence of interactions and the cultural background of the negotiators will be looked into and also the impact of emulated culture in each team (British and Saudi Arabian) and the emulated role of each participant will be investigated. In the third stage, a questionnaire will be developed based on those sequences that have been identified and in-depth interviews with experienced executives in large organisations will be conducted to understand if the identified sequences are used in real-life situations.

The research approach adopted for this study is graphically depicted in FIGURE. 2 below



The results obtained from the qualitative and quantitative techniques will be disseminated to practitioners and peers for them to undertake further research in negotiations and group interactions. Preliminary executive reports will also be prepared and sent out to those firms that have participated in the interview sessions.

4 Conclusion

With the growth of internationalised business deals and the increase in global competition, the success of the business will depend increasingly on how effectively cross-cultural interactions are managed and it is most likely that future international managers will be able to bring about this outcome successfully (Henderson 2005, Varner I.I. and Beamer, L. 2005). When an individual is unable to view another person's point of view, conflicts are prone to stem up. According to Bales (1950), "conflict even if it is constructive could lead to tension that damages group cohesion." It is therefore vital to interact with people from different cultures, to learn more about their personality and their way of life.

This study thus enables the researcher to identify those behavioural patterns that have impacted business negotiations in either a positive or negative manner. Finally, the model developed from this study will be helpful for future researchers to effectively observe and code group interactions and understand to what extent culture has an influence on the negotiation process.

References

- [1] Adair, W. and Brett, J.M. (2004). Negotiation Dance: Time, Culture, and Behavioral Sequences in Negotiation. *Organizational Science* vol. 16, pp. 33-51.
- [2] Adair, W., Brett, J., Lempereur, A., Okumura, T., Shikirev, P., Tinsley, C and Lytle, A., (2004). Culture and Negotiation Strategy, *Negotiation Journal*, Blackwell Publishing.
- [3] Bales R.F. and Strodtbeck, F.L. (1951). Phases in group problem-solving. *Journal of Abnormal and Social Psychology*, vol. 46: 485-495.
- [4] Bates, D.G., & Plog, F. (1976). *Cultural Anthropology*, 3rd edition. New York: McGraw-Hill.
- [5] Beamer, L. and Varner, I. (2005). *Intercultural Communication in the Global Workplace*, 3rd edition, Boston: McGrawhill.
- [6] Brett, J.M. (2000). Culture and Negotiation. *International Journal of Psychology*, vol. 35, no. 2, pp. 97-104.
- [7] De Mattos, C., Sanderson, S. and Ghauri, P. N. (2002). Cross-cultural Negotiations, *Thunderbird International Business Review*, vol. 44, no. 6, pp. 701-728.
- [8] Ghauri, P. (2003). *International business negotiations*, 2nd edition, Pergamon.
- [9] Hall, T. E. (1976). Beyond Culture, *American Anthropological Association*, vol. 4, Issue 4, pp. 783-784.
- [10] Henderson, J. K. (2005). Language diversity in international management teams. *International Studies of Management and Organization*, vol. 35: 66-82.
- [11] Hofstede, G., and Hofstede, G. J. (2005). *Cultures and Organizations: Software of the Mind*, 2nd edition, New York: McGraw-Hill.
- [12] House R.J. et al. (eds.), (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Thousand Oaks, CA: Sage.
- [13] Lewicki, R. J., Litterer, J. A., Minton, J. W., & Saunders, D. M. (1994). *Negotiation: Readings, exercises and cases*, 2nd edition. Irwin, Burr Ridge, IL.
- [14] Lewicki, R. J., Barry, B., Saunders, D. M. and Minton, J. W. (2003). *Essentials of Negotiation*, 3rd edition. McGraw Hill.
- [15] McGrath, J.E. (1984). *Groups: Interaction and Performance*, Prentice-Hall, Inc, Englewood Cliffs, N.J.
- [16] Perakyla, A. (2004). Two traditions of Interaction. *British Journal of Social Psychology*, vol. 43, no. 1, pp. 1-20
- [17] Robert F. Bales (1950). *Interaction Process Analysis; A Method For the Study of Small Groups*, Cambridge, Massachusetts: Addison-Wesley Press.
- [18] Robert F. Bales (1950). A Set of Categories for the Analysis of Small Group Interaction, *American Sociology Review*, vol. 15, no. 2, April, pp. 257-263.
- [19] Rokeach, M. (1973). *The nature of human values*. New York: Free Press.

Customer Participation Behavior for Value Co-creation in High- Versus Low- Contact Services: The Roles of Trust-in-Personnel and Trust-in-Brand

Esther Ling-yee LI, estherli@ln.edu.hk
Department of Marketing and International Business, Lingnan University - Hong Kong

Sherriff T. K. LUK, mssluk@polyu.edu.hk
The Hong Kong Polytechnic University - Hong Kong

Ben Shaw-Ching Liu, Ben.Liu@quinnipiac.edu
Quinnipiac University - USA

Customer Participation Behavior for Value Co-creation in High- Versus Low- Contact Services: The Roles of Trust-in-Personnel and Trust-in-Brand

Abstract

In light of the changing roles of customers from service co-producer to value co-creator, the customer participation literature has conceptualized two types of participation behavior: co-production and value co-creation. However, there is a dearth of knowledge concerning both the antecedents of a customer co-creation behavior and the outcomes of such behavior in relation to customer perceived value and loyalty. Anchored on the trust-commitment theory, the present research (i) examines the main effect of how a customer's trust in the service personnel could affect his/her cooperative, value-adding participation behavior over the service delivery processes; and (ii) investigates how the potential impact of a customer's trust in service personnel on his/her participation behavior could vary and made contingent upon the customer's trust in the service brand on the one hand, and the types of high- versus low- customer contact service contexts on the other hand. Filling the above mentioned research gaps, the present research contributes to advance our knowledge of the roles played by trust at different levels of analysis in facilitating customer participation behavior; and improve our appreciation of the service contact contexts when designing the service organization for maximizing value of service outcome and sustained brand loyalty over time. To enhance the generalizability of the conclusion, this study examines its hypothesized relationships using matched samples of high-contact hair dressing (salon) services and low-contact mobile phone services. Both the theoretical and managerial implications deriving from the empirical results are also provided.

Keywords: Customer participation, Co-creation, High/low service context, Trust, Service personnel

Suppliers' Segmentation Process: A business-relationship perspective

Maria Rosaria Marcon m.r.marcone@univpm.it
Polytechnic University of Marche - Italy

Suppliers' Segmentation Process: A business-relationship perspective

Abstract

Purpose - This article investigates how firms manage outsourcing in situation of an innovative supplier market niche.

This study analyses the initial outsourcing activities and strategies of mechanics firms. The tentative framework specifying the key conceptual categories was derived to set theoretical boundaries for the longitudinal study.

Design/methodology/approach - An interpretative, qualitative approach - utilizing selected multi-case study interviews such as the primary data collection method - is chosen. This study, surrounding the relationship-building approach, adopts a multi-phase methodology.

Findings - The findings show that greater focus needs to be placed on operational aspects associated with innovative supplier market niches, which contrasts with the traditional strategic view of outsourcing. The factors considered as potential influencers in the collaboration process competencies of medium enterprises are been analysed.

Practical implications - We believe that this study provides valuable information for practitioners and researchers alike. It illustrates the value of a holistic view to managers in purchasing strategies attempting to assess the risk and the complexity facing them.

Originality/value – Our study created new knowledge regarding the network relationships used to access innovation resources. Our results demonstrate that important resources for innovation may be accessible through innovative supply relationship.

Keywords: supplier markets, new product development, innovative supply chain relationships.

1. Introduction

This paper could present a preliminary research concepts and findings concerning the identification and analysis of risks regarding purchasing decisions in manufacturing firms that are belonging to 'interrelated international supply chain'. We map the purchasing choices and present a new framework for categorizing the risks in terms of their driver factors in order to assess the overall impact on the performance of the operation area too.

Thus, there is a need to understand how purchasing strategies may affect a firm's ability to innovate.

A developed supplier market is a basic outsourcing requirement. However, supplier markets can be inefficient; for instance, do to oligopolistic or monopolistic market structures, or asset specificity and opportunistic transaction behavior between buyer and seller (Williamson, 1985; Walker and Weber, 1984; Rindfleisch and Heide, 1997). The present article deals with the so-called innovative supplier market niche (ISMN), which is defined as being context in which it is possible to find suppliers with developed production systems and experience of the components considered for outsourcing (Azadegan, 2011; Holmen *et al.*, 2013; Rehme *et al.*, 2013). This situation differs from the traditional view of a few dominant suppliers controlling elements such as market conduct and prices.

The outsourcing literature has predominantly assumed the existence of a developed supplier market and has addressed markets that are characterized by dominant supplier opportunism (Holcomb and Hitt, 2007; McIvor, 2008; Eltantawy and Giunipero, 2013). However, few studies have focused on how firms manage outsourcing in a supplier market that, from the outset, could be regarded as an innovative niche; a market with a low degree of competition between suppliers, which also lacks knowledge and other resources necessary to implement value-added strategies (Walker *et al.*, 2005; Inemek and Matthyssens, 2013; Va de Vijver *et al.*, 2011; Yan and Dooley, 2013).

The aim of this paper is to develop a decision support framework for purchasing strategies in supply relationship management utilizing an integrated approach to value-based performance and risk optimization. We develop a comprehensive approach to capacity management taking into account related purchasing strategies from a value-based perspective (Hahn and Kuhn, 2011). The article makes three distinctive contributions to the more general field of purchasing and supply management research. Firstly, with the help of our longitudinal case studies, we illustrate how firms manage outsourcing when they lack an initial supplier market. One could contend that an innovative supplier market niche essentially leaves a company proactively to build a supplier market to which it can outsource. Secondly, we combine the resource-based view (RBV) and transaction cost economics (TCE), and contributing by adding greater depth to the understanding of outsourcing to an ISMN. In particular, the findings increase the understanding of the operational

level of outsourcing decisions vs. the strategic level, as well as the value of the traditional core/non-core logic in outsourcing strategies. Thirdly, our proposed outsourcing framework provides managers with an *aide memoire* when considering outsourcing in ISMN.

The remainder of this article is organized as follows. We first provide a literature review on the domains relevant for this research and then we develop hypotheses to explain the moderating effects of environmental uncertainty on 'supply chain integration-performance relationships'. In section 3 we define the key theoretical constructs and highlight the adopted methodology. In section 4 we outline implications of the approach using a case-oriented example. This is followed by descriptions of the competences and skill profile to the best design of purchasing portfolio. We conclude the paper in section 6 with a summary of the findings and an outlook for further research. Finally, we draw conclusions with implications for practitioners and with limitations.

2. Literature review and hypotheses

Strategic management theories methods – including the resource-based view of the firm, transaction cost economics and learning organization – are applicable and beneficial to managing global complexity requirements.

Outsourcing decision frameworks are most often approached with theoretical starting points taken from transaction cost economics or the resource-based-view, either singularly or combined. While TCE considers economic rationales for companies to organize some transactions in either in-house or external governance (Williamson, 1985), the RBV argues that firms' specific assets are heterogeneous, meaning they become competitive by focusing on resources that are rare, highly valuable for customers, and imperfectly imitable (Barney, 1991; Peteraf, 1993; Grant, 1996). Transaction cost theory relies on two fundamental human behavioural assumptions. The first is bounded rationality, where contracts that are incomplete at best are established; and the second is opportunism, where humans are self-interested seekers with guile, which is seldom transparent *ex ante* (Williamson, 1985). Organizational research suggests that firms in dynamic environments with higher levels of information processing, communication and knowledge transfer are more likely to develop competencies which will result in successful technology innovation than firms in these environments with lower levels of co-operative resources.

Proactiveness is an opportunity-seeking, forward-looking managerial perspective (Teece, 2007).

Thanks to an increasing focus on strategy in outsourcing decisions, the RBV achieved a more prominent position (McIvor, 2010). Over the next decade, various authors developed different RBV-influenced frameworks to formulate outsourcing strategies (Insigna and Werle, 2000). The use of single focus on outsourcing 'innovative core components' has been criticized from several angles. One problem concerns distinguishing between the company's present and future core competencies; another concerns the risk that companies may outsource the more problematic activities.

Outsourcing has continued to be a key theme in the purchasing and supply chain literature (Braziotis et al., 2013; Westphal and Sohal, 2013). For example, Gottfredson et al. (2005), Aron and Singh (2005) and Ata and Toker (2012) provided outsourcing frameworks with strong RBV influences. While Aron and Singh (2005) emphasised risk evaluation (operational vs. structural) as an important step in the outsourcing strategy analysis, Gottfredson et al. (2005) argued for a focus on capability benchmarking. Baines et al. (2005) argued that many of the earlier outsourcing frameworks focused too much on one individual boundary decision and missed the holistic view of the supply chain network.

Tate and Ellram (2009) drew on TCE to develop a supplier selection framework for purchasing offshore services. One of their key proposals was that there is a high risk of opportunism and supplier failure if the outsourcing firm's training and investments are inadequate. At the same time, such investments are sunk and increase the risk of supplier dependency and switching cost. Emery and Marques (2011) recently used a lens of transactions costs economics to determine whether a firm will hold raw materials inventories or its supplier will hold the identical intermediate goods as finished goods inventories. Others researchers suggested that considering cost motives alone (TCE) limits outsourcing analysis. Instead, they suggested a theoretical outsourcing model which TCE arguments are complemented by RBV in terms of gaining access to specialized capabilities, which should help firms ensure value beyond efficient cost mechanisms.

Some diligent publishers in the outsourcing have developed interesting frameworks that combine RBV dimensions (contribution to competitive advantage and relative capability position) with the dimensions from TCE (suppliers' opportunism, trust, etc.) (Broedner *et al.*, 2009; Kumar *et al.*, 2010; Day *et al.*, 2013; Lambert and Schwieterman, 2012; Vanpoucke *et al.*, 2014).

In international managerial theory it is a shared opinion that the development of productive activities requires the use of external technological knowledge, which needs to be wisely integrated into the company, so that it becomes firm specific and can be efficiently used (Grant, 1996). The fact that they develop in many diversified areas and follow many diversified paths of expansion, compels, even the smaller firms, to use at the same time diversified and sophisticated organizational modalities (mechanisms of organizational coordination, quality of human resources, etc.). These competencies such as organizational learning and market knowledge use have been topics of sustained interest in business marketing as is evident in more international managerial literature. Applications of resource based view suggest that learning orientation and the knowledge to identify all activities for outsourcing (core and no-core) operate as strategic resource within supply-chain organizations. Hence, we posit the following hypothesis.

Hypothesis 1. Learning orientation is a dimension of strategic sourcing centrality.

In collaborative supply chains, the supply chain processes such as design, planning and production are executed in coordination of supply chain partners.

The key assumption in this 'value view' of the supply chain is that firms can enhance their competitive position by considering the value streams they are operating in, as well as other parallel ones that use the same supply as a grid in which they operate.

Conceptually we see the 'value chain' as an equivalent to product and process architectures, where such 'purposeful design' has been proposed before (Holweg and Helo, 2014). While both product and process architectures have been widely discussed, the complexity inherent in value chains have so far meant that the structure of a value chain determines its dynamic behavior (Marsillac and Roth, 2014).

It is generally agreed that the investment in information technology and collaborative activities are dependent on the anticipated benefits of supply chain, such as cost reduction or sales improvements. Based on the above literature, it is possible to say that collaborative new product development activities within supply chain collaboration will help to improve the supply chain processes. Decision synchronization is widely recognized as one of the important elements of supply chain collaborations. Supply chain decision making involves different players at various supply chain processes, in each of these processes, coordination and support from supply chain players help to create value in the supply chain. Accordingly, we posit the next two research hypotheses.

Hypothesis 2. Collaborative execution of supply chain activities has a significant impact on the success of collaboration.

Researchers have long argued that strategic priorities at the functional level should be aligned with business level strategies. This vertical fit has been associated with superior firm performance and may become a source of competitive advantage (Porter, 1996). The importance of strategic alignment represents a common ground in the field of strategy. However, research on the vertical alignment between supply management and the overall business strategy is more recent: fit between business strategy, and between purchasing strategy and purchasing practices, is key to achieving superior competitive advantage (Narasimhan and Das, 2001; Baier *et al.*, 2008; Vachon *et al.*, 2009; Rebolledo and Jobin, 2013).

Because purchasing and manufacturing form the core of the supply chain, the consistency between both functional strategies is crucial to support the corporate-level competitive strategy.

Despite the recognized importance of the horizontal fit between purchasing and manufacturing, empirical research in this area is scarce. Because purchasing and manufacturing form the core of the supply chain, the consistency between both functional strategies is crucial to support the corporate-level competitive strategy. Our third hypothesis is therefore:

Hypothesis 3. In this paper, we hypothesize that different manufacturing strategies affect into different supply management practices.

3. Research method

a) Theoretical framework

The expected outcome of the complexity analysis is the top-down analysis of characterized purchasing market drivers and their impact, and a more in depth investigation into connection between complexity exposure and operations performance measures.

The management literature implicitly already classifies ‘value chain architectures’ by discussing specific aspects in isolation, such as order fulfillment and product customization strategies, sourcing configurations and supplier relations, global sourcing and outsourcing. Furthermore, as outlined above, the need to align product, process and value chain layout has been proposed. Thus the question arises as to whether a more comprehensive classification would contribute to either the academic debate or managerial practices. In this paper we thus define ‘value chain architecture’ as a design of the inter-firm relationship consisting suppliers, manufacturers, and users, in order to maximum the value creation for the focal firm. See figure 1 about our theoretical framework.

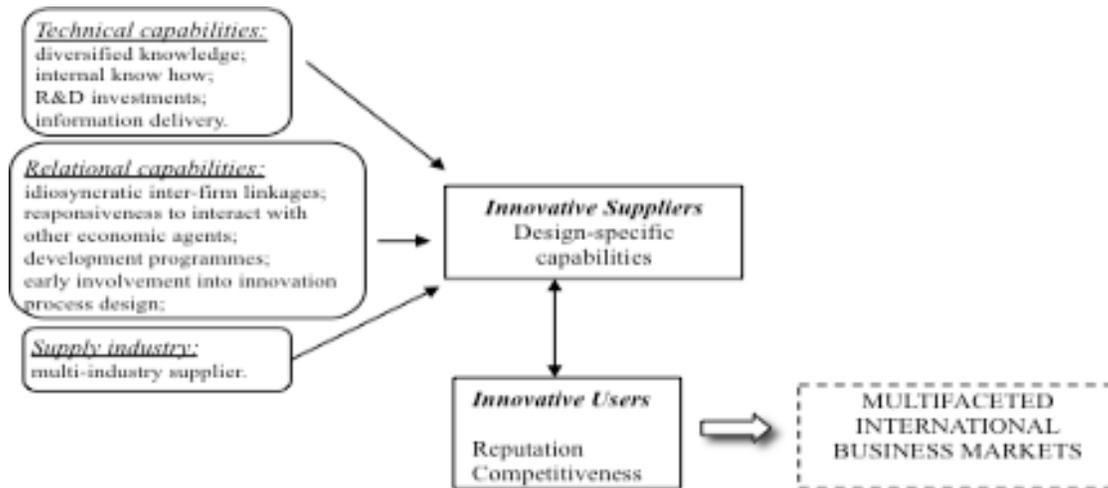


FIGURE 1 - A CONCEPTUAL MODEL OF ATTRACTION IN BUYER-SUPPLIER RELATIONSHIP

b) Information selection and data collection

An interpretative, qualitative approach - utilizing selected multi-case study interviews (Yin, 2003) such as the primary data collection method - is chosen because it helps to navigate and understand the complex issues that are associated with the data quality concept, and its relation to the factors involving managerial practices to implement facilities in modern relationships within the international supply chain. ‘Oriented case studies’ investigate the issue within a real life context, drawing on the reviews of a number of sources, and provides the means to review theory and practice iteratively (Ellram, 1996; Flynn *et al.*, 2010; Hennenberg *et al.*, 2010). Multiple cases ensure that common patterns are identified rather than generalized from what might be change occurrences (Eisenhardt, 1989; Janesick, 2000).

This study, surrounding the relationship-building approach, adopts a multi-phase methodology. It is divided into research stages of pilot investigation and empirical model validation, conducted in sequential order during the period 2005-2013. Such an arrangement helps to integrate and reconfigure a variant view in relevant studies, proposing a framework to be verified in the samples representing different fields of the firm. The pilot investigation phase, comprising an initial exploration and small-scale survey, entails the conceptual framework of relationship-building. The empirical model validation phase, using data obtained from more wide surveys, completes the empirical verification of relationship-building for supply chain collaboration management.

The first part of the analysis in this study aims at finding more appropriate determinants of complexity of the supply-markets and of the supply processes. In this sense a first research framework is developed in which the link between strategic dimensions, process dimensions and organizational dimensions of purchasing activity. Second the research framework analyse the relationship between purchasing performance and operations performance (delivery, quality, time, efficiency).

c) Interview protocol

This study leverages a data set of 10 medium-sized multinationals belonging in many mechanics sub-sectors and that are localized in mid-Italy.

Data were collected through 45 semi-structured, 45 – to 90 – min. interviews with leaders and participants from all the functional area involved in supply activities improvement process, as well as with heads of other divisions affected by the process.

Given the nature of the research, interviewees were not required to stay within the standard questions: an interviewee who seemed to be exploring a fruitful avenue was permitted to continue in that direction. This semi-structured protocol changed over time as each subsequent interview was used to triangulate the responses from previous interviews and expanded the list of questions as we uncovered more elements of the planning process. This continuous expansion and improvement of the protocol after each interview is a normal part of the process of grounded theory development.

To assess these orientations, we explicitly asked interviewees about their incentives, goals, internal work in processes, and relationships to other actors and functional areas (Makkone and Olkkonen, 2013; Brandenburg *et al.*, 2014).

Finally, part of the protocol also included direct observation of the main planning meetings and extensive debriefing time afterwards. This allowed us to observe the behaviour of the different actors in the planning process and to obtain explanations for observed behaviour during the meetings.

All interviews were recorded. We triangulated (Jick, 1979; Stuart *et al.*, 2002; Voss *et al.*, 2002) each interviewee's responses with answers from other actors and documentation of the process and its outcomes provided by the organization, and used follow-up interviews to clarify differences.

4. Purchasing portfolio

a) Learning orientation as dimension of strategic sourcing centrality

Managers selecting a purchasing strategy should first understand the sources of uncertainty and find the way of reducing the level that suits them best. Intuitively, firms with expansive inputs facing highly innovative and uncertain industrial-demand and with many potentially substitute output goods are inclined to build business-relationships with selected suppliers. In this sense, an important role is played by 'purchasing practices' that represent the content of the purchasing strategy and reflect a particular way of performing purchasing activities (Eroglu and Hofer, 2011; Holveg and Helo, 2014).

Learning orientation represents the degree to which the corporate buyer and internal strategic sourcing activities stress the value of learning for long-term benefit, both of the supply chain organization and of the specific supply management unit. Learning orientation is defined, in this study, by the sourcing management's degree of focus on exploiting opportunities for new ideas and process and on pursuing knowledge for long-term benefits of supply management. Applications of resource based view suggest that learning orientation and the knowledge to identify non-core activities for outsourcing operate as a strategic resource within supply-chain organizations. Additionally, managerial and marketing studies indicate that learning orientation fosters strategic sourcing activities. Thus, learning orientation serves as a valuable and unique (i.e. inimitable) resource. When companies invest in performance-based relationships that are asset-specific (such as learning orientation), they reduce opportunistic risk while fostering strategic sourcing.

The results indicate that successfully moving to strategic sourcing centrality will require first cultivating a learning-oriented environment that addresses continual sharing of information. As a consequence, the corporate

culture must become one in which those who continually enhance their knowledge advance within a firm. Second, purchasers must move from a practice of merely reacting to user and supplier needs to a mode characterized by advanced planning, market analysis, and aimed at developing proactive strategies that anticipate market movements. Third, and perhaps most importantly, supply managers must focus on building relationships and driving improvement through these relationships. They must shift toward interacting with the key suppliers to build relationships that extend to the highest levels of the organization and that allow for the free exchange of data across both organizations.

b) Competence and skill profiling

More generally, consistent with stakeholder theory (Parmar et al., 2010), our findings reinforce the need to take account of external as well as internal stakeholders when considering the drivers of buyer-supplier relationship's structure. In fact, in seeking to understand the drivers of buyer-supplier outcomes, the major of empirical research has concentrated on the role played by internal firm factors such as strategic relatedness, organisational fit and culture compatibility. This has generated considerable insights into how buyer-supplier relationship impacts 'internal supply actors', but in comparison relatively less academic attention has been paid as to how external players, such as competitors belonging at diversified but linked (or inter-connected) supply chain, are affected by, and respond to, buyer-supplier relationship activity.

With the increased importance of procurement as a function, suppliers and their dedicated management have increasingly been seen as a source of value (Schneider and Wallemberg, 2013). The most fundamental distinction here is the relationship type or strategy, which should be seen on a continuum between transactional or competitive on the one extreme and relational or cooperative on the other.

The industrial marketing literature has long recognized the importance of a firm's relationship with suppliers and users as a key driver of firm performance in business-to-business (B2B) markets (Cannon and Perreault, 1999). The buyer-supplier relationship has been shown to be one of the primary determinants of the composition of purchasing portfolio, of the market share and profitability.

'Supply chain relationship formation' is the process to select proper suppliers and the way to reach an agreement between suppliers and users (Petersen *et al.*, 2003). Our research focuses on the exchange relationship between the provider and the user, focusing performance-based relationships as a typical application field for relatively new service dominant logic. This service logic argues for a marketing perspective of user value focus, interaction and relational orientation by no longer distinguishing goods and services. Very often providing an integrated solution will extend beyond the capabilities of an individual provider company. To actually relieve the buyer of the operational responsibility, it is recommended that a system integrator (or solution provider) coordinates the necessary suppliers and bundles their inputs (Ng and Nudurupati, 2010; Kleemann and Essig, 2013). More recently, competency profiling is also commonly carried out during the purchasing portfolio design. More research concentrates on observing the changes in key sets of purchasing skills, developing taxonomies of purchasing skills and focusing on identifying and categorizing skills; very little research addresses skills development (Feisel *et al.*, 2011; Eltantawy and Giunipero, 2013; Knight *et al.*, 2014).

The age of globalization is characterized by shared standards and practices across the globe and at the same time enormous complexities and uncertainties. Building supply chain system capabilities in the age of global complexity, firms confront both global and local pressures as their value chains are extended from one end to the other end of the world and managing supply chain complexity requires firms and researchers to examine more than existing theoretical framework (Grogaard, 2012).

Supply chain risk management entails identifying the potential sources of risk and implementing appropriate actions to avoid or contain vulnerability (Srinivasan et al., 2011; Makkone and Olkkonen, 2013; Brandenburg et al., 2014). Hence, in assessing supply-chain vulnerabilities companies need to identify the risks not only to their own operations but also to all other entities, as well as those caused by linkages between organisations. Jüttner et al. (2003) define supply chain vulnerability as the propensity of risk sources and risk drivers to outweigh risk mitigating strategies, thus causing adverse consequences and favouring the supply chain's ability to effectively serve all tier of users and end-customer.

Supply chain management entails proactive relationship formation and integration among various tiers in the chain (Trkman et al., 2007; Vilko and Hallikas, 2012).

d) Purchasing strategy in ISMN

Purchasing strategy and its potential contribution to the firm's objectives has attracted considerable attention. Most of the research in the area has focused on the strategic nature of purchasing and the importance of linking purchasing to corporate strategy. Research on the vertical alignment between supply management and the overall business strategy finds that arm's length interactions, traditionally associated with cost-reduction strategies, were superseded by cooperative interactions in diversified and strongly interrelated international supply chains.

We find that collaborative decision making has a positive significant impact on long-term future collaboration. Overall, results do not show a strong link between manufacturing and purchasing strategies. Manufacturing plants in our sample do not align their manufacturing strategy with dissimilar purchasing practices.

Supply chain formation has become a crucial problem in supply chain, because each participant, i.e. users as well as suppliers, needs to determine its partners as soon as possible in order to maximize its profits. Then, the goal of supply chain management is to plan production to meet requirements of users in order to minimize inventory in the supply chain.

To allow providers to identify the efficiency potentials and to amortize the respective investments to leverage them, a long-term perspective is usually necessary for performance-based relationship. It may therefore be assumed that performance-based relationship is applied to complex product-service systems with a long life-cycle, which require considerable efforts to maintain the systems. This research field, commonly developed from an industrial marketing perspective, emphasizes the opportunity for providers and for users to share the new product processes risks and to increase their profitability¹ (Knight et al., 2014). In this sense the matrix below (see figure two) is the guide structure to develop a segmentation of the firm's supplier base according to the categories' list. The purpose is to find the best way to manage the purchasing relationship.

The stream of literature, based on TCE, argues that firms attempt to maximize their flexibility in uncertain environments by reducing their reliance on inter-firm relationships. TCA-based reasoning suggests that under uncertain circumstances, ex post performance evaluation of the exchange partner is difficult when transactions deviate from expectations. Ex ante, in an environment fraught with uncertainty the parties to the exchange find it difficult to develop long lasting and trusting relationships as such relationships involve mutual commitment and drafting, negotiating and monitoring complex contracts. Social relationships are formed and maintained because the partner firms offer reciprocal benefits to one another over time (Eisenhardt and Schoonhoven, 1996). In this context, supply chain planning is a cross-functional effort within a firm: this multifaceted activities identify social elements that influence the performance of the planning process within the firm and place the information processing attributes within a broader social and organizational context. Then, the successive step is to identify a process (or metrics) as a mediator that can affect organizational outcomes.

5. Concluding observations

In an age of strongly increasing focus on core competencies, the inputs of external suppliers and providers play a major role in a firm's success. The user no longer specifies the individual components of a solution but rather the desired outcome (as the value expected from the solution) whereas the supplier's compensation is tied to successfully achieving this outcome.

The factors considered as potential influencers in the collaboration process competencies of medium enterprises can be divided into the following ways: idiosyncratic inter-firm linkages, meeting frequently, international purchasing activities, negotiating functional transfer, joint operational planning, and early involvement in the innovation or engineering processes design. The importance of product design as a main determinant of process design has been emphasized in operations management literature for decades, but the direct and indirect impacts of product design on process and supply chain activities is a research area that has received less attention to date.

¹ The uncertainties cover aspects such as cost development, a need for a fundamental mind shift both for the provider and the user, and the aspects of performance-based service delivery, where providers are dependent on both users and sub-suppliers for a considerable share of the value creation.

This paper examining the influence among product design, process and supply activities, determine how these influences develop and evolve, and in particular, explores how these changes influence global supply chain behavior and capabilities.

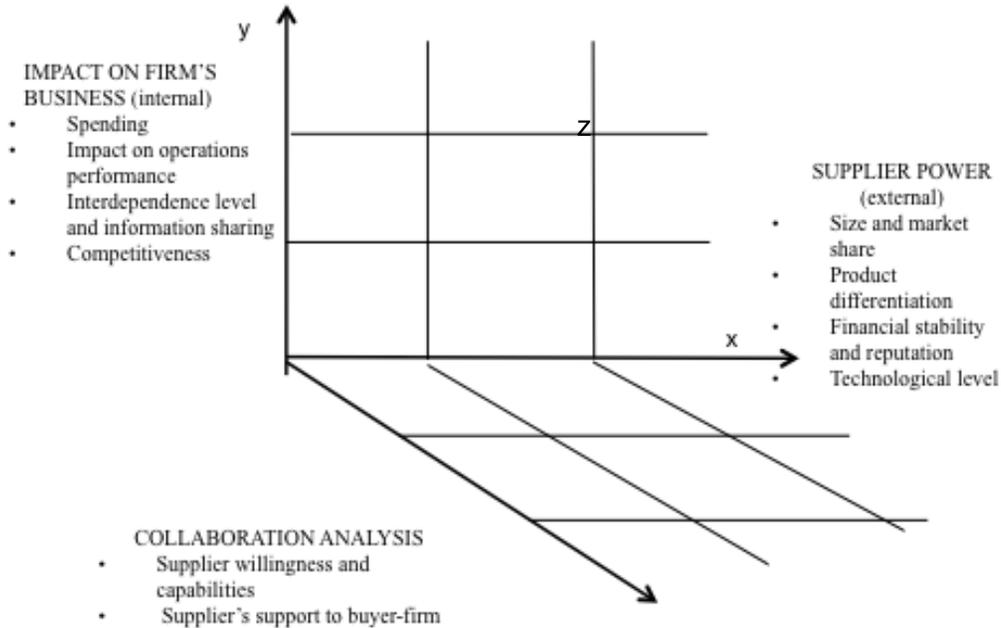


FIGURE 2 – SUPPLY SEGMENTATION WITHIN PURCHASING RELATIONSHIP

The factors considered as potential influencers in the collaboration process competencies of medium enterprises can be divided into the following ways: idiosyncratic inter-firm linkages, meeting frequently, international purchasing activities, negotiating functional transfer, joint operational planning, and early involvement in the innovation or engineering processes design. The importance of product design as a main determinant of process design has been emphasized in operations management literature for decades, but the direct and indirect impacts of product design on process and supply chain activities is a research area that has received less attention to date.

This paper examining the influence among product design, process and supply activities, determine how these influences develop and evolve, and in particular, explores how these changes influence global supply chain behavior and capabilities.

The research has also found that to proactively build a supplier market is multifaceted process.

Supplying ‘innovative core components’ can be criticized: on the one hand, the buyer firm can found more difficulties to distinguish between the company’s present and future core competencies; on the other hand, from this supply activity arises the risk that companies my outsource the more problematic activities.

Purchasing portfolio management is positively related to operations performance and to product innovation performance too. Overall, our results do not show a strong link between manufacturing and purchasing strategies. A possible explanation could be that the purchasing practices reported in this study are best practices that can support any type of manufacturing strategy. Manufacturing plants in our sample do not align their manufacturing strategy with dissimilar purchasing practices. Collaboration, focus on supplier quality, delivery, price, and supplier potential; and the adoption of coordination mechanisms with suppliers have been associated with superior manufacturing performance. This study suggests that this finding is true for firms that have different manufacturing priorities.

As business face the increasing levels of complexity challenges that arise from regulatory requirements, global market opportunities, multi-faceted products and services, rapid technology changes, and global competitive pressures it is critical for firms to develop global supply chain strategy and global supply chain design. Firms aim to

achieve dynamic supply chain configurations in their 'intra and inter-firm resources' in the form of flexible use of physical and knowledge resources. The scope of such integration poses grave risk potential in global supply chain environments with the disruptive elements from both internal and external environments.

We found that specific capabilities in supply collaboration process positively influence the operational and relational outcomes of such supply collaborative initiative. In effect, these competencies such as organizational learning and market knowledge use have been topics of sustained interest in business marketing.

The central research problem of this study was the conceptualization and operationalization of the strategic sourcing centrality underpinned by the resource based view. This study attempt at conceptualizing the dimensions of strategic sourcing centrality. In order for this construct to become more widely adopted and provide a strong foundation for strategic sourcing and supply chain management theory to be built upon it, the construct needed to be well defined and complete in its coverage. This process allows for the exploration and a better understanding of the relationships among strategic sourcing centrality dimensions and other supply chain organizational parameters.

6. Implications for practitioners

We believe that this study provides valuable information for practitioners and researchers alike. It illustrates the value of a holistic view to managers in purchasing strategies attempting to assess the risk and the complexity facing them. In particular, for practitioners, this article suggests that it is important to emphasize that the learning curve for a supplier can be lengthy, and also that the alternative outsourcing routes are available when outsourcing to an innovative supplier market niche. Most importantly, managers considering outsourcing to an innovative upplier market niches should not underestimate the length of the supplier learning curve. We observe also that the development of a suppliers' relationship structure takes time and requires considerable resources. Therefore, firms must thoroughly consider outsourcing component vulnerability, as well as evaluating the supplier market (for example the number of suppliers and their development).

The risk of high dependency and the uncertainty of suppliers' capability and outsourcing experience will complicate such decision.

From a supply manager's perspective, this research provides a greater understanding of the specific dimensions of strategic sourcing centrality. Thus, supply managers may use the proposed framework as a basis for supply management and supplier differentiation strategies. Suppliers, on the other hand, must understand the corresponding key evaluation criteria necessary to achieve preferred suppliers status.

7. Limitations

Our study has been exploratory in nature and a number of limitations should be noted. First and foremost, this study has focused on a limited number of cases-study. The complex nature of our cases-study has provided rich insights, but further work is now required to establish the generalizability of our findings both within many B2B mechanics sub-sectors and more widely within other firms belonging at the same sub-sectors but localized in other geographic contexts. The study also has limitations in terms of generalizability, given the subjective nature of the data: it would also be useful to analyse the financial and qualitative aspects of risk and its effects in the supply-chain context.

Second, the participating manufacturing plants belong to the same industry and are all located in developed countries. On the national or regional level it enhances understanding of such complexity drivers, their likelihood and consequences, which gives a good basis on which to prepare for and respond to them in order to ensure the security of supply.

Finally, our methodology required interviewees to retrospectively recall buyer-supplier integration that occurred up to five years previously. This recall period, while long, is generally not considered excessive (Miller et al., 1997).

Future research seeking to develop more fully specified models should embrace a stakeholder approach, including specific consideration of outcome of purchase's strategy regarding direct competitors.

References

- [1] Ata, U. Z., and Toker, A. (2012), "The effect of customer relationship management adoption in business-to-business markets", *Journal of Business & Industrial Marketing*, Vol. 27 No. 6, pp. 497-507.
- [2] Aron, R. and Singh, J. (2005), "Getting offshoring right", *Harvard Business Review*, Vol. 83 No. 12, pp. 135-143.
- [3] Azadegan, A. (2011), "Benefiting from supplier operational innovativeness: The influence of supplier evaluations and absorptive capacity", *Journal of Supply Chain Management*, Vol. 47 No. 2, 47-64.
- [4] Baier, C., Hartman, E., and Moser, R. (2008), "Strategic alignment and purchasing efficacy: an exploratory analysis of their impact on financial performance", *Journal of Supply Chain Management*, Vol. 44, No 4, pp. 36-52.
- [5] Baines, T., Kay, G., Adesola, S. and Higson, M. (2005), "Strategic positioning: an integrated decision process for manufacturers", *International Journal of Operations & Production Management*, Vol. 25 No 2, pp. 180-201.
- [6] Barney, J. (1991), "Firm Resources and Sustained Competitive Advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.
- [7] Brandenburg, M., Govindan, K., Sarkis, J. and Seuring, S. (2014), "Quantitative models for sustainable supply chain management: Developments and directions", *European Journal of Operational Research*, Vol. 233 No. 2, pp. 299-312.
- [8] Braziotis, C., Bourlakis, M., Rogers, H., and Tannock, J. (2013), "Supply chains and supply networks: distinctions and overlaps", *Supply Chain Management: An International Journal*, Vol. 18 No. 6, pp. 644-652.
- [9] Broedner, P., Kinkel, S., and Lay, G. (2009), "Productivity effects of outsourcing: new evidence on the strategic importance of vertical integration decisions", *International Journal of Operation & Production Management*, Vol. 29 No. 2, pp. 127-150.
- [10] Camen, C., Gottfridsson, P. and Rundh, B. (2001), "To Trust or not to Trust?: Formal Contracts and the Building of long-term relationships", *Management Decision*, Vol. 49 No. 3, pp. 365-383
- [11] Cannon, J. P., and Perreault, W. D. (1999), "Buyer-seller relationships in business markets", *Journal of Marketing Research*, Vol. 36 No 4, pp. 439-460.
- [12] Emery, G. W., and Marques, M. A. (2011), "The effect of transaction costs, payment terms and power on the level of raw materials inventories", *Journal of Operations Management*, Vol. 29, No. , pp. 236-249.
- [13] Day, M., Fawcett, S. E., Fawcett, A. M., and Magnan, G. M. (2013), "Trust and relational embeddedness: Exploring a paradox of trust pattern development in key supplier relationships", *Industrial Marketing Management*, Vol. 42 No.2, pp. 152-165.
- [14] Eisenhardt, K. M. and Schoonhoven, C. B. (1996), "Resource-based View of Strategic Alliance Formation: Strategic and Social Effects in Entrepreneurial Firms", *Organization Science*, Vol. 7 No. 2, pp. 136-150.
- [15] Ellram, L. M. (1996), "The use of the case study method in logistics research", *Journal of Business Logistics*, Vol. 17 No 2, pp. 93-138.
- [16] Eltantawy, R. A. and Giunipero, L. (2013), "An empirical examination of strategic sourcing dominant logic: Strategic sourcing centrality", *Journal of Purchasing & Supply Management*, Vo. 19 No. 4, 215-226.
- [17] Eroglu, C. and Hofer, C. (2011), "Lean, Leaner, too Lean? The Inventory-Performance Link revisited", *Journal of Operations Management*, Vol. 29, pp. 356-369.
- [18] Feisel, E., Hartmann, E., Giunipero, L. (2011), "The importance of the human aspect in the supply function: strategies for developing PSM proficiency", *Journal of Purchasing and Supply Chain Management*, Vol. 17 No. 1, pp. 54-67.
- [19] Flynn, B.B., Huo, B. and Zhao, X. (2010), "The impact of supply chain integration on performance: a contingency and configuration approach", *Journal of Operations Management*, Vol. 28 No. 1, pp. 58-71.
- [20] Gottfredson, M., Puryear, R., Phillips, S. (2005), "Strategic sourcing-from periphery to the core", *Harvard Business Review*, Vol. 83 No. 2, pp. 132-139.
- [21] Grant, R.M. (1996), "Prospering in Dynamically-Competitive Environments: Organizational Capabilities as Knowledge Integration", *Organization Science*, Vol. 7 No. 4, pp. 375-387.

- [22] Groggaard, B. (2012), "Alignment of strategy and structure in international firms: an empirical examination", *International Business Review*, Vol. 21 No. 3, pp. 397-407.
- [23] Henneberg, S., Mouzas, S. and Naudé, P. (2010), "Sense-making and management in business networks: Some observations, considerations, and a research agenda", *Industrial Marketing Management*, Vol. 39 No. 3, pp. 355-360.
- [24] Holcomb, T. and Hitt, M. (2007), Towards a model of strategic outsourcing", *Journal of Operations Management*, Vol. 25 No. 2, pp. 464-481.
- [25] Holmen, E., Aune, T. B. and Pedersen, A. (2013), "Network pictures for managing key supplier relationships", *Industrial Marketing Management*, Vol. 42 No. 2, pp. 139-151.
- [26] Holweg, M. and Helo, P. (2014), "Defining value chain architectures: linking strategic value creation to operational supply chain design", *International Journal of Production Economics*, Vol. 147, pp. 230-238.
- [27] Inemek, A. and Matthysens, P. (2013), "The impact of buyer-supplier relationships on supplier innovativeness: An empirical study in cross-border supply networks", *Industrial Marketing Management*, Vol. 42 No. 4, pp. 580-594.
- [28] Insigna, R. C. and Werle, M. J. (2000), "Linking outsourcing to business strategy", *Academy of Management Executive*, Vol. 14 No. 4, pp. 58-70.
- [29] Hahn, G. J., and Kuhn, H. (2011), "Optimising a value-based performance indicator in mid-term sales and operations planning", *Journal of the Operational Research Society*, Vol. 62, No 3, pp. 515-525.
- [30] Jick, T. D. (1979), "Mixing Qualitative and Quantitative Methods: Triangulation in Action", *Administrative Science Quarterly*, Vol. 24 No. 4, pp. 602-611.
- [31] Jüttner, U., Peck, H., Christopher, M. (2003), "Supply chain risk management. Outlining an agenda for future research", *International Journal of Logistics: Research and Application*, Vol. 6, No 4, pp. 197-210.
- [32] Kleemann, F. C. and Essig, M. (2013), "A provider's perspective on supplier relationships in performance-based contracting", *Journal of Purchasing & Supply Management*, Vol. 19, pp. 185-198.
- [33] Knight, L., Tu, Y. H. and Preston, J. (2014), "Integrating skills profiling and purchasing portfolio management: an opportunity for building purchasing capability", *International Journal of Production Economics*, Vol. 147, pp. 271-283.
- [34] Kumar, S., Zampogna, P. and Nansen, J. (2010), "A closed loop outsourcing decision model for developing effective manufacturing strategy", *International Journal of Production Research*, Vol. 48 No. 7, pp. 1873-1900.
- [35] Lambert, D. M. and Schwieterman, M. A. (2012), "Supplier relationship management as a macro business process", *Supply Chain Management: An International Journal*, Vol. 17 No. 3, pp. 337-352.
- [36] Makkonen, H. and Olkkonen, R. (2013), "The conceptual locus and functionality of key supplier management: A multi-dyadic qualitative study", *Industrial Marketing Management*, Vol. 42 No. 2, pp. 189-201.
- [37] McIvor, R. (2010), "The influence of capability considerations on the outsourcing decision: the case of a manufacturing company", *International Journal of Production Research*, vol. 47 No 17, pp. 5031-5052.
- [38] Miller, C., Cardinal, L., and Glick, W. (1997), "Retrospective reports in organisational research: A re-examination of recent evidence", *Academy of Management Journal*, Vol. 40 No. 1, pp. 189-204.
- [39] Narasimhan, R., and Das, A. (2001), "The impact of purchasing integration and practices on manufacturing performance", *Journal of Operations Management*, Vol. 19, No 5, pp. 593-609.
- [40] Ng, L. and Nudurupati, S. S. (2010), "Outcome-based service contracts in the defence industry: mitigating the challenges", *Journal of Service Management*, Vol. 21 No. 5, pp. 656-674.
- [41] Parmar, B. L., Freeman, R. E., Harrison, J. S., Wicks, A. C., Purnell, L., and De Colle, S. (2010), "Stakeholder theory: The state of the art", *The Academy of Management Annals*, Vol. 2, No 1, pp. 403-445.
- [42] Peteraf, M. A. (1993), "The Cornerstone of Competitive Advantage: A Resource-Based Theory", *Strategic Management Journal*, Vol. 1 No. 2, pp. 179-191.
- [43] Petersen, K. J., Handfield, R. B. and Ragatz, G. L. (2003), "A model of supplier integration into new product development", *Journal of Product Innovation Management*, Vol. 20 No. 4, 284-299.
- [44] Porter, M. E. (1996), "What is strategy?", *Harvard Business Review*, Vol. 74 No. 6, pp. 61-77.

- [45] Rebolledo, C., and Jobin, M. H. (2013), "Manufacturing and supply alignment: are different manufacturing strategies linked to different purchasing practices?", *International Journal of Production Economics*, Vol. 146, No. , pp. 219-226.
- [46] Rehme, J., Nordigården, D., Brege, S. and Chicksand, D. (2013), "Outsourcing to a non-developed supplier market: The importance of operational aspects in outsourcing", *Journal of Purchasing & Supply Management*, Vol. 19 No. 4, pp. 227-237.
- [47] Rindfleisch, A. and Heide, J. B. (1997), "Transaction cost analysis: past, present, and future applications", *Journal of Marketing*, Vol. 61 No. 4, pp. 30-54.
- [48] Schneider, L. and Wallenburg, C. M. (2013), "50 years of research on organizing the purchasing function: do we need any more?", *Journal of Purchasing & Supply Management*, vol. 19, pp. 144-164.
- [49] Srinivasan, M., Mukherjee, D. and Gaur, A. S. (2011), "Buyer-Supplier Partnership Quality and Supply Chain Performance: Moderating Role of Risks, and Environmental Uncertainty", *European Management Journal*, Vol. 29, pp. 260-271.
- [50] Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R. and Samson, D. (2002), "Effective Case Research in Operations Management: A Process Perspective", *Journal of Operations Management*, Vol. 20, pp. 419-433.
- [51] Teece, D. J. (2007), "Explicating dynamic capabilities. The nature and the microfoundations of sustainable enterprise performance", *Strategic Management Journal*, Vol. 28 No. , pp. 1319-1350.
- [52] Trkman, P., Stemberger, M., Jaklic, J., Groznik, A. (2007), "Process approach to supply chain integration", *Supply Chain Management. An International Journal*, Vol. 12 No 12, pp. 116-128.
- [53] Vachon, S., Halley, A. and Beaulieu, M. (2009), "Aligning competitive priorities in the supply chain: the role of interactions with suppliers", *International Journal of Operations and Production Management*, Vol. 29 No. 4, pp. 322-340.
- [54] Van de Vijver, M., Vos, B. and Akkermans, A. (2011), "A tale of two partnerships: Socialization in the development of buyer-supplier relationships", *Journal of Supply Chain Management*, Vol. 47 No. 4, pp. 23-43.
- [55] Vanpoucke, E., Vereecke A. and Boyer, K. K. (2014), "Triggers and patterns of integration initiatives in successful buyer-supplier relationships", *Journal of Operations Management*, Vol. 32 No.1, pp. 15-33.
- [56] Vilko, J. P., and Hallikas, J. M. (2012), "Risk assessment in multimodal supply chains", *International Journal of Production Economics*, Vol. 140, No. , pp. 586-595.
- [57] Voss, C. A., Tsikriktsis, N. and Frohlich, M. (2002), "Case Research in Operations Management", *International Journal of Operations & Production Management*, Vol. 22 No.2, pp. 195-219.
- [58] Walker, H., Knight, L., Harland, C. (2005), "Outsourced services and imbalanced supply markets", *European Management Journal*, Vol. 24 No 1, pp. 95-105.
- [59] Westphal, P. and Sohal, A. (2013), "Taxonomy of outsourcing decision models", *Production Planning & Control: The Management of Operations*, vol. 24 Nn. 4-5, pp. 347-358.
- [60] Williamson, O. E. (1985), *The Economic Institutions of Capitalism*, Free Press, New York.
- [61] Yan, T. and Dooley, K. J. (2013), "Communication intensity, goal congruence, and uncertainty in buyer-supplier new product development", *Journal of Operations Management*, Vol. 31 No. 7, pp. 523-542.

**The customer Relationship Management (CRM) and its impact on competitiveness in the
Restaurant industry of Guadalajara, Mexico**

Ileana Elizabeth Ruvalcaba Rivas, lic.nin.ileanaruvalcaba@hotmail.com

Jose Sanchez-Gutierrez, jsanchez@cucea.udg.mx

Juan Mejia-Trejo, juanmejiatrejo@hotmail.com

Marketing & International Business Department, University of Guadalajara, Mexico

The customer Relationship Management (CRM) and its impact on competitiveness in the Restaurant industry of Guadalajara, Mexico

Abstract

This research explain the relationship between CRM and competitiveness, analyzing four aspects: customer orientation, considered the key factor to survive in this competitive market (Narver and Slater, 1990; Torgler, 2009; Bentum and Stone, 2005); TIC's, essential element for an effective CRM initiative (Razvan, 2010; Gordon 2002; Sin, Tse and Yim, 2005), administrative capability that includes HR as a key element for organization and CRM success (Payne and Frow, 2006; Mendoza, Marius, Pérez and Grimán, 2007; Xu and Walton, 2005) and knowledge about competitors and global market, (Deshpandé, Farley and Webster,1993); Finnegan and Currie (2010) and Javalgi, Martin and Young (2006) said, knowing your competence you can satisfy your clients offering specialized products and services. The independent variable CRM, and dependent variable the competitiveness, using the likert scale applied to 420 CEO's, the results were analyzed with confirmatory factor analysis (CFA), and the structural equation model (SEM's).

Introduction

Nowadays, competition in any economic sphere is day to day more aggressive due to the fast development of technology, making more difficult for companies to remain in close competitiveness. Companies are interested in doing different things; provide better products or services to differentiate from market rivals in order to attract more customers to survive and in the best case: grow their income.

Globalization and the development of Internet has led to a situation where the information is reach of a finger and consumers are better informed. This contributes to make changes in customer's behavior and increase expectations (Goldenberg, 2004; Mahmoud and Bagchi, 2004). What has turned into a war to stay in business, concerned with generating innovative strategies to attract new customers, focused in penetrating major markets, forcing others to renew or perish in the attempt. These owners should aim for a total transformation of their business philosophy, building on a sustainable competitive advantage that is widely recognized by the customer and prefer over competitors, especially talking about the Mexican Restaurant Industry where it can be seen that conditions have changed over the last decade, because just three new restaurants survive by ten opened as statements given by the president of the Cámara Nacional de la Industria Restaurantera y Alimentos Condimentados (CANIRAC) Manolo Gutiérrez .

Figures do not lie, based on data provided by the same CANIRAC, seven of every 10 open restaurants in Mexico close its doors in less than forty-eight months, alarming information for the industry in general (Regalado, 2013).

These statements become determinants and therefore, this research aims to explain the current situation in the Restaurant Industry of Guadalajara, Jalisco, México and to determine how many establishments have implemented a strategy or specific CRM software.

The problem is that Restaurant Entrepreneurs should be aware that there are many companies offering the same products and services, that there is little differentiation in the industry and is necessary to generate strategies to foster long lasting relationships with clients to persist in market (Chen and Chen, 2004; Jayachandran et al, 2005; Kim and Kim, 2008 and Ryals, 2005) .

As clearly pointed out on its publications, CANIRAC 2012 figures that 250 local food and drink open at the beginning of the year but another 200 down the curtain at the end. This clearly speaks of alarming numbers of micro, small and medium enterprises (MSME) that start in the process of opening their businesses but few are those who have the basic skills needed to stay more than two years on the market (Romo, 2012).

In fact, this paper's main objective is to know and deepen on CRM concept as well as examine the factors that affect successful implementation, first, the customer orientation, in second place, the information and communication technology (ICT), the administrative capacity of the economic entity and finally the knowledge of the

market in which they operate. Added to this will examine how they interact with each other and how these variables affect CRM.

Objectives

Analyze the relationship between the variables that affect the CRM in the restaurant industry of Guadalajara:

- Analyze the relationship between the variable information and communication technology (ICT) with the CRM
- Determine the relationship between CRM and client orientation variable
- Demonstrate the relationship between the variable administrative capacity and CRM
- Show the relationship between the variable knowledge of the competition and global market and CRM

And answer the following research questions:

- How do the information and communication technology (ICT), client orientation, administrative capacity and knowledge of the competition and global market variables relate to CRM?
- How does the variable information technology and communication relate to the CRM?
- How does the client orientation variable impact CRM?
- How does the variable administrative capacity linked with CRM?
- How does the variable knowledge of the competition and global market affect CRM?

Mexican Restaurant Industry

Mexican cuisine is one of the many cultural treasures held by the country, due to the variety and essence, was declared by UNESCO as intangible cultural heritage; hence the importance of the hospitality industry in the country, as expressed by former Secretary of Economy, Bruno Ferrari (Ministry of Economy, 2012). Also considered an important source of investment, the catering industry is the most important element of the tourism sector, so it is an industry with huge potential not only economic but social and cultural (CANIRAC, 2008). It is the second largest employer nationally, surpassing in employment to all persons employed in the sectors of fishing, mining, electricity, water, gas distribution pipeline to the final consumer and construction (in its entirety). With activities predominantly in seven Mexican states, in order of importance: Distrito Federal, Estado de México, Jalisco, Veracruz, Puebla, Michoacán y Guanajuato (INEGI, 2012).

The Tables 1 & 2 show the national figures pertaining to 2012 to collect the above information.

TABLE 1: NATIONAL RESTAURANT INDUSTRY IN FIGURES

CONCEPT	FIGURE
Number of restaurants nationwide	428,000
Concentration of establishments in seven states of the country: (Distrito Federal, Estado de México, Jalisco, Veracruz, Puebla, Michoacán y Guanajuato)	50%
Staff employed by gender:	
Men	55.3%
Women (80% heads of households)	44.7%

Source: own elaboration, based on the directorio estadístico nacional de unidades económicas (denue)

TABLES 2: GROWTH OF FOOD AND BEVERAGE INDUSTRY NATIONAL LEVEL (2012)

CONCEPT	FIGURE
Gross Domestic Product (GDP)	3.58%
Job growth	3.67%
Impact of the sector in economic branches	84
Generating of direct jobs	1,300,000
Generating indirect jobs	3,250,000

Source: own elaboration, based on the directorio estadístico nacional de unidades económicas (denue)

Jalisco is the third state nationwide in which the restaurant industry is overriding and generating thousands of jobs because of this economic activity (CANIRAC Jalisco, 2012). But things have not always been positive, the restaurant industry has been hit countless times by various difficulties, but after years of crisis, it seems that the numbers have started to improve.

The market for foods and beverages prepared in Mexico is very diverse, is wide and too competitive; hence, the urgent need to make the difference between a restaurant and other so, diners go to it and become loyal customers.

It is noteworthy that the scope of technology, internet, media, cause that consumers have sources of information that allow them to evaluate, compare and choose from many restaurant options to go; a lot of restaurants manage a range of strategies to remain in the minds of their customers; it means that a slight change in the service provided by the company, a friendly, helpful and attentive staff, can make extraordinary the customer experience and achieve the desired end, survive on their mind and thereby start generating long, lasting and mutually beneficial relations (loyalty). Therefore, customer relationship management (CRM) plays a key role in this economic sector of food and beverages.

Customer Relationship Management

The customer relationship management, better known as CRM, according to specialists, dates back to the early twentieth century. Consistent with the above, Dowling (2002) suggested that CRM has its origin in two separate places: first in the United States, where the term was mainly driven by technological changes of companies (software and data) in order to generate solutions cutting-edge and innovative based on customer needs to attract, satisfy and keep them in the long run.

The second school was born in the Scandinavian and northern Europe with the exponents Gronroos (1994, 1996 and 2000) and Gummesson (2002) as a way to support large enterprises to foster the relationship with industrial marketing and sales department; in order to build trusting relationships with customers in the future.

Another approach was given in the Anglo - Australian school, in the United Kingdom with Payne and Ballantyne (1991) about their six markets theory.

In addition, it was coin to Berry in 1953 the term “relationship marketing” because from the second half of the twentieth century, that was mentioned by first time (but not deeply), the concept was in its beginning (Urbanskiéné, Zostautiené and Chreptaviciene, 2008).

It was not until the nineties, when other scientists Payne, Frow, Ballantyne, Morgan, Hunt, Gronroos, began to conduct extensive research on the subject, referencing this particular term, ascribing a more detailed description. Soon, authors all over the world started talking about it, generating multiple concepts and theories. It is noteworthy that was Gummesson (1999) who formulated a model for the implementation of CRM (Urbanskiéné et al, 2008).

One of the assumptions on which CRM is based it's on the constant and massive changes happening in the market at that time; limitations on the marketing knowledge that existed (Urbanskiené et al, 2008); there was not a culture of maintaining lasting customer relationships, loyalty was an unknown subject, satisfaction was not taken into account by providers of products and services; the market demanded new forms of competitiveness, customer reward, a deep interaction between sellers and buyers, the unification of efforts of the supply chain and all actors involved in the sales process; hence the idea of the CRM born with an extraordinary impulse to bet on tomorrow's markets.

The long-term relationships with customers became the central focus of marketing, (Urbanskiené et al, 2008) and also in one of the major concerns of entrepreneurs, because the CRM borned as a customer orientation to detect needs, generate appropriate treatment and especially the art of preserve them (falls under the concept that attracting a new customer is more expensive than keeping one), so it can be said that CRM is all related to the total satisfaction and fulfilling the needs and desires of a particular client.

In summary, previously there was no such culture of retention, as the business model that existed twenty years ago was run by monopolies or large companies that monopolized the market with generic and undifferentiated products where buyers consumed what they produced regardless if adapted to their needs, today this has changed dramatically, consumers are very demanding and require customized products and services, now almost everything is designed according to the wishes of each. Therefore, fidelity is becoming a major challenge for service and products providers, because if the customer is not happy with the market offer at any time they will change to the competition to attend that need. That is why CRM is acquiring a distinctive importance in this era of diversity and productive innovation. The company that cannot adapt to the new system falls in the risk of failure and disappear from the market. With so many offers available, for every product, there are five, ten or more substitutes and many similar options that generate the same satisfaction as it. In simple words, now the customer is the one with the power in decision making.

Based on these definitions, CRM consists on business strategies to have a thorough understanding of customers, from their needs, desires and expectations of the service; thus may increase satisfaction, creating long term relations that lead down the path of loyalty, which will result in corporate profitability ratios; agreeing with Drucker (1998) considered one of the great exponents of research on the topic, arguing that the objective is to provide a unified enterprise-wide view of customer and cultivating relationships that enhance quality loyalty and profits. Basically the idea is not to let escape an interaction with a client on the central database of the company. Attention is focused on learning more about them and use that knowledge to refine every interaction you have in the future, it offers companies the opportunity to increase revenue, be more profitable and generate sustained competitive advantage to capture, deliver, maintain and monitor the long-term relationships with consumers. This can be the door that leads to success and is key in business today.

The Table 3 collects the contributions of various authors on CRM.

TABLE 3: CRM CONCEPTS BY AUTHOR

AUTHOR	DEFINITION	YEAR
Wayland & Cole	Essential tool to produce revenue growth	1997
Kalakota & Robinson	Systems that integrate sales, marketing and specially after-sales service	1999
Parra & Molinillo	Discipline that consist on establish, develop and commercialize long-term relationships	2001
Parvitayar y&Sheth	Process of acquiring, retaining and partnering with selective customers to create greater mutual value	2001
Swift	Understand and influence customer behavior through the recruitment, retention, loyalty and profitability	2001
Bergeron	Dynamic process that manages the customer - company relationship generating a mutually beneficial exchange	2002

Kim, Suh & Hwang	Efforts of a company to manage customer interactions over the long term	2003
Kincaid	Strategic use of information, processes, technology and people to more effectively manage customer relationship	2003
Bligh & Turk	Business strategy focused primarily on the client in order to maximize their satisfaction	2004
Gartner	Business strategy designed to optimize profitability, revenue and customer satisfaction	2004
IBMs Global CRM study	Important tool to produce growth on revenues through improved customer experience	2004
Salestrack	Internal business process seeks to build partnerships with its customers	2005
Christopher, Payne & Ballantyne	Orientation to generate appropriate relationship between business and customers to create higher revenues	2006
Reinares	Company initiative focused on achieve satisfaction of their customers on time	2009
Abdullateef, Mokhtay & Yusoff	Ability of the organization to integrate people, processes and technologies to maximize positive relationships with customers and prospects	2010
Faed, Shouri & Wu	Technique to maintain continued and lasting relationship with customers to obtain both value	2011

Source: own elaboration

After the literature review, for purposes of this research will address the CRM as the mutually beneficial relationship between customer and company, it supports the information technology and software to generate detailed reports on the activities of each customer, focuses on providing suitable to their wants and needs solutions; in collaboration with various departments within the organization such as sales, customer service, marketing, human resources so that they work together on retention, generate long-term relationships and foster repurchase behavior.

CRM, integrator elements and variables of impact

Managing the relationship with the customer has some specific elements to be successful (Gordon, 2002; Razvan, 2010) which include:

- People (all employees within the organization from the top job to low, not only those work in direct contact with the client);
- Processes (each of the procedures that are carried out within the organization to perform daily activities focused on customer satisfaction) and
- Technology (software or information systems of the company to internally manage their customer relationships).

It is also necessary to point out that CRM is affected by several variables that exert direct or indirect influence, on the first of these is the information and communication technology (ICT) used to collect data that can be analyzed to provide necessary information and thus create a more personal interaction with the client asserts King and Burgess (2007); Swift (2001) . Within organizations is paramount historical storage where their activities are recorded mainly focused on its customers, which include: data mining to identify their needs quickly and be able to solve their requests; it works to create a database updated (Krasnikov, Jayachandran, and Kumar, 2009).

The CRM is responsible for collecting information from all data sources within an organization to give a view of each customer in real time. This allows support and train employees involved in such areas as sales, customer and marketing to make quick decisions that always adapted to their needs; (Razvan, 2010). It is a process that works together to bring benefits to customers; thus represents one of the most useful ways to gather information about them, sales, measure the effectiveness of marketing activities, competition and market trends, without much effort and

dedication, besides it has the advantage of being inexpensive and readily accessible because it takes place within the organization. By using these technologies enable the company to build and maintain profitable customer relationships (Day, 2003).

The Table 4 mentions the authors that relate CRM with the variable information and communication technology (ICT).

TABLE 4: AUTHORS THAT RELATE CRM WITH ITC

AUTHORS	IMPORTANCE OF ICT
Buxmann & Gebauer (1999)	ICT is considered today a key success factor for service organizations
Kale (2004)	The lack of implementation of ICT in a company is the main factor in failure of the same
Sin, Tse & Yim (2005)	CRM technology has generated greater benefits to companies
Payne & Frow (2006)	CRM focuses on customer-technology strategy
Renart & Cabré (2008)	Each company must select the technology that best suits and thereby manage their CRM strategy
Razvan (2010) & Gordon (2001)	The information technologies are a key element for efficient CRM initiative

Source: own elaboration

Secondly and considered a high impact variable is the customer orientation (Sin, Tse and Yim, 2005), a company must focus all or most of their activities to meet the needs and desires of its source of revenues (clients) and maintain a philosophy approach directly on keeping them happy with the product or service they are receiving. This orientation helps to generate loyalty in the long run. Understanding loyalty in Oliver's words (1997, pp.57)...*"the deep commitment to repurchase or systematically favor in the future a product or service which has preference, despite the possibility that situational influences and marketing programs cause behavioral change"*.

The Table 5 show the authors that relate CRM with the variable customer orientation.

TABLE 5: AUTHORS THAT RELATE CRM WITH CUSTOMER ORIENTATION

AUTHORS	IMPORTANCE OF CUSTOMER ORIENTATION
Narver & Slater (1990)	Customer orientation is the most important factor to survive to the competition
Bentum & Stone (2005)	Customer orientation is an indispensable prerequisite for the CRM to be successful
Urbanskienė, Zostautienė & Chreptaviciene (2008)	All organizations must be customer-oriented and focused on meeting their needs
Torggler (2009)	Customer orientation is one of the key success factors of CRM

Kavitha & Palanivelu (2012)	Customer orientation helps build long-term relationships with customers of an organization
Khandekar & Deshmukh (2012)	Customer focus is one of the most important variables to survive in the market

Source: own elaboration

A third variable is considered the organizational capacity of the company, because it helps to understand the preferences and needs of its market, acquiring, collecting and assimilating external knowledge and later transformed into customized products and services for its customers (Branzei and Vertinsky, 2006; Joshi and Sharma, 2004; Marinova, 2004). Therefore it is stated that the administrative capacity of a company, is the set of strategies that cause a profound change in its structure, in its internal organization, which is primarily made up of human resources (Sin, Tse and Yim, 2005); in which the employee-customer relationship is an important factor to consider.

The Table 6 mentions the authors that relate CRM with the variable organizational capacity.

TABLE 6: AUTHORS THAT RELATE CRM WITH ORGANIZATIONAL CAPACITY

AUTHORS	IMPORTANCE OF ORGANIZATIONAL CAPACITY
Maselli (2001)	The failure of a CRM strategy is the lack of integration of the organization among its workers
Sin, Tse & Yim (2005)	Human resources are the key part of an organization to success in CRM
Xu & Walton (2005) & Noruzi (2007)	The employee is considered the "internal customer" and has huge importance as the face of the company to the customer
Payne & Frow (2006)	Employees = key success factor for the organization and CRM
Mendoza, Marius, Pérez & Grimán (2007)	People who work in the business are those that determine the success of the CRM strategy
Ranjar & Bhatnagar (2009)	The success factor of CRM in an organization depends on the openness and adaptability of workers

Source: own elaboration

Finally, the last variable that influences the CRM according to a research by Gordon (2002); Fjermestad and Romano (2002) is the knowledge and understanding of the market in which the company is involved. By understanding the way in which it operates globally, competitors, their marketing strategies, their development; this will help the organization to be better prepared for contingencies and thus be prevented for any unexpected change.

The Table 7 mentions the authors that relate CRM with the variable knowledge of the competition and global market.

TABLE 7: AUTHORS THAT RELATE CRM WITH KNOWLEDGE OF THE COMPETITION AND GLOBAL MARKET

AUTHORS	IMPORTANCE OF KNOWLEDGE OF THE COMPETITION AND GLOBAL MARKET
----------------	---

Day & Wensley (1988); Naver & Slater (19990); Day & Nedungadi (1994)	Understand the actions of competitors and know how to react to them
Deshpandé, Farley & Webster (1993)	Meet the competition to best satisfy customers
Javalgi, Martín & Young (2006)	Companies that know their competition are more successful than those that do not, because they are better adapted to market needs
Zheng- Zhou (2007); Luo, Rindfleisch & Tse (2007).	Meet the competition has advantages in marketing, costs and financial performance
Finnegan & Currie (2010)	A homogeneous CRM strategy must combine several factors, particularly focus on competition and knowledge of market trends

Source: own elaboration

Having described the variables that experts in the field say that are exercising the greatest impact on the CRM, the construct of this research based on them.

Research design

The construct developed for this research is explained with a single independent variable called CRM, which hang four dependent variables of equal importance to each other and above: ICT, customer orientation, administrative capacity and knowledge of the competition and global market, which are composed of dimensions trying to give explanation with which the items transferred to the research are the questions within the body of the questionnaire answer these intrinsic relationships between dependent and independent variables were generated.

The research used various methodological tools for their development; through descriptive research in the first phase for information gathering where construct was generated and subsequently elevated to correlational level, where examines the relationship between them and the results thereof (Salkind, 1998); mixed approach as determined by Hernández et al (2006) it collects, analyzes and links quantitative and qualitative data in a single study or series of investigations to address a problem statement; transversal as data are collected at one and only time; with reach in Guadalajara, focused on the 906 major restaurant MSME registered in the database of DENUE until 2012.

The Table 8 shows the technical details of the investigation.

TABLE 8: TECHNICAL DETAILS OF THE INVESTIGATION

CONCEPT	CHARACTERISTICS
Universe*	906 restaurants
Field of study	Local
Sampling unit	MSME (Micro, small and medium enterprises)
Method of data collection	Personal interview
Sample type	Simple random sampling

Sample size	420 restaurants
Margin of sampling error	+ - 4% and 97% level of confidence
Date of fieldwork	August to November 2013

Source: own elaboration

Regarding field research it was developed a questionnaire structured in seven blocks divided by areas, a total of 52 items, using three different question models, the dichotomy that allows the respondent to select whether or not, the multiple choice, where have a number of alternatives to choose from lists (Kinnear and Taylor, 2003) and the Likert scale from 1 to 5.

Respondents should be fully involved in the administration, management and / or address of the restaurant to have all relevant information to the CRM and its implementation, to respond based on their experience according to the post.

All results from the pilot and finals were tested through statistical analysis; multivariate, Cronbach's alpha, KMO, Bartlett sphericity using SPSS and EQS programs through Confirmatory Factorial Analysis (CFA) and the covariance structure model (CSM).

Results

The KMO obtained was .888, meaning that it can carry out the factor analysis in this model made construct; the Cronbach's alpha of .912 representing a very high reliability.

In addition all hypotheses were tested through the application of MEC which shows that both individual and set variables have a positive impact on CRM in the restaurant industry of Guadalajara as can be seen in Table 9.

TABLE 9: SEM RESULTS OF THE THEORETICAL MODEL

Hypothesis	Structural relationship	Standardized coefficient	Robust t- value	Measures of FIT
H1: A greater use of ICT more CRM	ICT ----- CRM	0.391***	9.885	S-BX2(70)=274.6792 p=0.000
H2: A greater client orientation more CRM	CO----- CRM	0.408***	15.755	
H3: A greater administrative capacity more CRM	AC----- CRM	0.471***	7.236	NFI=0.904 NNFI=0.814
H4: A greater knowledge of the competition and global market more CRM	KCGM----- CRM	0.460***	20.747	
H5: A greater use of ICT, client orientation, administrative capacity, knowledge of the competition and global market more CRM		0.374***	53.624	CFI=0.924 RMSA=0.084
**=p<0.001				

This means that ICT positively affect the implementation of CRM in 40.8%, customer orientation in 39.1%, administrative capacity by 47.1 %, knowledge of competition and global market by 46 % and the effect total joint variables regarding the CRM is 37.4 %.

Conclusions

All variables of the construct have positive effects on the implementation of CRM. Furthermore, in the restaurant industry of Jalisco is observed limited knowledge of what it means managing the relationship with the client, but that does not mean that some strategies of differentiation between competitors are not applied, because although the develop consciously know that the competition is tough; entrepreneurs operate with the notion of satisfying its customers to return in the future and some more with the philosophy of "customer first and always right", it is perceived that the performance of CRM is in levels of initiation, less than 35% of respondents said that they are implementing a strategy in their business.

There is much to do in this industry, checking what in statistics mentioned above, many of the restaurants surveyed are new to the business for less than 40% of them have more than 10 years in the rotation . Most companies are family so poor solid administrative structure is observed. Yet many employers were open to implement CRM strategies in the future relying on Chambers to which they are affiliated.

References

- [1] Bentum, R. & Stone, M. (2005). Customer relationship management and the impact of corporate culture –a European study. *Journal of Database Marketing & Customer Strategy Management*, 13, 28-54.
- [2] Branzei, O., & Vertinsky, I. (2006). Strategic pathways to product innovation capabilities in SMEs. *Journal of Business Venturing*, 21(1), 75–105.
- [3] Camara Nacional de la Industria de Restaurantes y Alimentos condimentados. (2013). *Cifras del sector restaurantero*. <http://www.canirac.org.mx/pdf/canirac-20110713-cifras-del-sector-restaurantero.pdf>
- [4] Chen, Q. & Chen H. (2004). Exploring the Success Factors of eCRM Strategies in Practice. *Journal of Database Marketing & Customer Strategy Management*, 11 (7), 333- 334.
- [5] Day, G. (2003). Creating a Superior Customer-Relating Capability. *MIT Sloan Management Review*, 44 (6), 77-82.
- [6] Deshpandé, R., Farley, J. y Webster, F. (1993). Corporate Culture Customer Orientation and Innovativeness in Japanese Firms: A Quadrad Analysis. *Journal of Marketing*, 57, 23-37.
- [7] Dowling, G. (2002). Customer Relationship Management in B2C Markets, Often Less is more. *California Management Review*, 44(3), 87-104.
- [8] Drucker, P. (1998). *On the profession of management*. Estados Unidos: Harvard Bussines Review Book.
- [9] Finnegan, D. & Currie, W. (2010). A Multi- Layered Approach to CRM Implementation: An Integration Perspective. *European Management Journal*, 28 (153–167).
- [10] Goldenberg, B. (2004). Customer Self-Service: Are you ready? *Customer Relationship Management*, 8, 18-20.
- [11] Gordon, I. (2002). Best Practices: Customer Relationship Management. *Ivey Business Journal*, 6, 1-5.
- [12] Gronroos, C. (1994). From marketing mix to relationship marketing: towards a paradigm shift in marketing. *Management decision*, 32 (2), 4- 20.
- [13] Gronroos, C. (1996). Relationship marketing: strategic and tactical implications. *Management decision*, 34 (4), 5-14.
- [14] Gronroos, C. (2000). *Service management and marketing: a customer relationship management approach*. Chichester: Jonh Wiley & Sons.
- [15] Gummerson, E. (2002). *Total relationship marketing*. Oxford: Butterworth- Heinmann.

Contact author for the list of references.

The role of Service Provider in place management

*Marcello Sansone, m.sansone@unicas.it
University of Cassino and Southern Lazio, Italy*

The role of Service Provider in place management

Abstract

This paper identifies the place, such as natural or artificial spaces able to play important roles in the development process of the quality of life of analyzed places, in a dynamic perspective of catalysts for economic interests, for sociological surveys, for interpretive marketing schemes, for environmental implications. Over time, the attention to the relationship between sustainable and potential development of territory and to the importance of the service providers have acquired increasing significance in marketing and place development studies.

The importance of the service provider is grounded in the assumption of two relevant logic categories -Basic and Relevant Service Provider- characterizing their role in the strategy of value creation and place development: in the reflections about place management, conducted with some international research units, the aim is to highlight the central role of service providers in the development of sustainable places also through the support of the analysis of cases.

Introduction

The document “*Europe 2020 Strategy. A strategy for smart and inclusive growth*” declares a dynamic view of the social market projected into the twenty-first century, with the simultaneous identification of three priorities:

1. smart growth, developing an economy based on knowledge and innovation;
2. promoting a more resource efficient, greener and more competitive economy, that doesn't necessarily have a public guide but a governance able to incentivize a real renewal of industrial districts or declining places – *for example the transformation of certain territories from industrial pure places to local systems of knowledge or high-integration of both*;
3. cooperative governance models; in this sense the importance of services becomes essential in the relationship between business development and places growth.

Two important logical categories of service providers - *basic service providers and relevant service providers*- impact on the importance of Services in the sustainable development of the places. Some literature's contributions indicate the categories of service providers needed to identify a distinctive mix that increase the opportunities for value creation in a Clear marketing strategy. The Relevant Service Provider identify some specific services that determine the arise of distinctive characteristics of places, a new ability to compete and raise the place value, a strong and enduring collaboration between stakeholders often in opposition over territorial policies, a systemic vision of the area; in this work retail is included in the macro-area of Services for final consumption. The Relevant Service Provider emerges as distinctive factors of the area and contribute significantly to its positioning; starting from the post-industrial approach (Bell, 1974), the intangible and knowledge economies, has allowed the overcoming of neo-industrial (Gershuny,1978) that identified the central role of tangible production in the place economies, through the generation of services.

1.1 The evolution of the role of services in place economies and management

Scientific reflections of marketing management not always improve the role of Services Industry in Place Management. Effectively, the position of Services Industry has often been opposed by trade off between consolidation of existing methods and new elements in the progression of the place systems.

Although the place management models and the company management models are different, it's necessary to tend toward the management of the places as Companies; indeed the strategic cooperation between stakeholders caused a repositioning that reenhanced a place area otherwise declining.

In the sixties, reference literature ascribed to Service Providers a limited capability to make money: it evidences an extreme customization capability of services to the detriment of the creation of relevant economies of

significant scale. It underlines the derangement attributed to the service's role in rapport to the industries that could cause a loss of expertise (Baumol, 1967).

Subsequently other authors have proposed a negative view with respect to the contribution of Service Providers to the development of the economy, arguing that the multiplication of service's activities affected the rising costs of industrial products; more attention to the services would generate higher costs for manufacturing industry (Goldfinger, 1996; Thurow, 1987; Rullani, 1988).

The contributions reported are part of a thought that pays for, on one hand, of the limits that result from an excessive conceptual opposition between materiality of production and immateriality of services, on the other hand serves the consequences of the difficulty to determinate methods of productivity of the different sections of services.

In parallel with the cited critical literature contribution, starting from the 80's some lines of thought are developed: they consider positively the contribution of services compared to their role in the economy and notably for the territory. Baumol (2002) wrote about the importance of service providers emphasizing its validity and positivity for economic and territorial development: in particular, the author identifies services as value added to the productive sector. That is because among other things, these are continually being enhanced by the development of new technologies; the paths towards the dematerialization encouraged an evolutionary cycle of new technologies that have contributed significantly to the economic and industrial improvement (Levitt, 1976; Rullani 1995; Gronroos, 1998).

Proceeding with the analyses of the changing role of the services and, more generally, of the tertiary sector it must be paid attention on a specific phase of the 80's: the companies provided free services in exchange of purchase of products. In the 90's some companies began to distribute free products in order to sell services over the long term like maintenance, management and training (Sahalman, 1999).

Since the late 90's the decisive role of knowledge-based economy, the de-materialization and globalization, have further enhanced the services sector and multiplied the value of new technologies (Rifkin, 2000). Particularly, the development of ICT technologies has fostered the exchange of opportunities; the abatement of distances, together with the increased affordability of most modern services. As for the bid, companies have benefited from the opportunity to enhance the interactions with the micro and macro-environment with all the negative and positive resulting features which in any case have favored a more appropriate technological evolution at all levels.

In this regard you can refer to the parallel that develops between the expansion of outsourcing in enterprises¹, the internet diffusion and the development of highly specialized service providers; specifically, Del Monte (2001) emphasizes that, thanks to the network, many businesses rely on external partners for the supply of goods and services different from its own core business.

Moreover, the changing role of the services comes to a sort of passing of the service itself. As several authors argue, the economy of mere service has left the field to the experiential economy. In its new context, the value for the customer – extremely picky – is created by the company offering experiences rather than goods and services: experiences represent proposals that differ profoundly from services at least as much as the services are different from goods (Pandav and Forlani, 2002). Starting from these service definitions, which, also using different approaches, converge toward notions of immateriality and multiformity of the phenomenon difficult to replicate identically, we come to an analysis of service providers in the development of territorial realities, which will obtain benefit if organized in the perspective of place marketing management.

1.2 The relevance of Service provider in place management

The service industry is complex in its forms as there are different interpretations for the identification of specific sectors; when referring to the exponential development of ICT we are talking about high-tech service industry (Momigliano and Siniscalco, 1970) to denote the homogeneous group of services provided by high-tech companies, mainly addressed to BtoB, which define new areas of development of services. In this work, it was decided to borrow certain categories of service providers, that help to determine the competitiveness of territories with particular reference to cities, from the classification of Gadrey and Martinelli (2000).

Specifically, services are classified into four macro-areas in order to highlight their value in relation to the development of the territory from the perspective of place marketing management. The synergistic contribution of

macro-service areas identified will determine the place positioning, the competitive potential, the international difficulties and, finally, the development of the territory. The immateriality of services is linked to the performance of service providers, depending on the quality of the economic environment, will lead to different performances and results.

Table 1 shows the macro-areas of service integrated with service providers of reference.

TABLE 1
Source: *Gadrey Martinelli (2000)*

<p><i>Social services</i> (public administration, defense, justice, security, civil protection, public health, basic and higher education, social assistance, public welfare);</p> <p><i>Services for end consumer</i> (modern retail - <i>trade and personal services</i> - tourist services);</p> <p><i>Infrastructure services</i> (land, sea and air transport, communications and telecommunications);</p> <p><i>Business services</i> (ICT, finance, insurance, real estate services, research and spreading of knowledge, advanced training, other business services)</p>
--

Service providers contribute to the competitive growth of urban economy and of manufacturing system by increasing the creation and development of knowledge, innovation, technology and the proper economic and financial structure of the territory; they integrate with the surrounding territories and, over time, become active and passive stakeholders of territory that, increasingly, bases its development on the stability of service industry and it repositions the place features on the knowledge economies.

In this work, the term Service Provider, refers to all the service providers in general who insist on the territories; the term Relevant Service Provider, in a place in process of upgrading and positioning, indicates service providers able to differentiate themselves from the generality and able to emerge in the market, for competitive skills, income generation, market share, positioning, ability to provide services and to assert its relevance in spatial realities different from the original.

The “ Relevant” service providers that emerge from the territory may be the result of a mix of values, cultural heritage, skills and knowledge characteristics of the land itself, or, they may simply affect the local community through the dissemination of best practices and knowledge. The services contribute to the positioning and re-positioning of entire geographical areas, with particular reference to the cities through the development of an intangible model based on values and with the emergence of the knowledge economy, with globalization and outsourcing in manufacturing.

Several factors have favored, in recent years, especially in Italy, the development of organizational forms and managerial stakeholders, often in coordination and not in opposition to the public authority²: the innovation of industry sector in the urban areas; the appeal of new formats and concepts of sales and administration with indirect purpose of increasing the aesthetic value of real estate and urban well –being; the trend of local communities to prefer “urban” gathering places” in the process of consumption of goods and satisfaction of expanded needs; the vital role of cities and city centers in particular in the rediscovery of the value of art and cultural initiatives.

In line with this approach, the retail service providers in some cities can be considered Relevant Service Provider, for their competitiveness and their importance in the place economy: innovative and shared procedures to manage the competitiveness can originate only through the systematization of ideas, plans and activities in a strategic marketing plan (Ancaroni and Valdani, 2000).

In this phase of work often emerges the fragmentation of decision-making bodies, the cultural heterogeneity of regional stakeholders, various points of view of a place, the disagreement of strategic aims, the lack of a territorial collective intentionality (Gatti and Schillaci, 2011). These factors do not generate any form of land value and spread of knowledge models replicable and measurable even in the urban area, resulting , conversely, the conditions for an impoverishment of the urban fabric.

A clear positioning of the various territorial sub-sites and an effective communication of the “*local supply*”, as inseparable core of goods and services oriented to consumers and to users of utility, arise ex ante from an overall

strategy - *framework strategy* - inclusive programs for tourism marketing, cultural heritage, urban marketing, attraction of inward investment, development of endogenous activities, on the basis of rigorous and analytical activities of place segmentation.

Policy makers should create a place brand only after a careful and scientific analysis of identity, values, characteristics, strengths and weakness, degree of territorial cohesion and aptitude to collective intentionality. It could be proved that, in practice, as the institutional actors often appoint resources and capabilities to create a brand logically disconnected from the conceptual framework, this is a cost and not an effective use of resources for the development of places.

The place marketing management “*reads and interprets*” the places, prioritizing their same segmentation, the critical evaluation of their current status, the positioning and /or repositioning, the size of the urban centers, the importance of manufacturing capacity for the conversion of entire areas in patterns of knowledge and intangible resources: for example, places developed around the large manufacturing enterprise and its satellite activities, supported by subsidies and facilities of various kinds, which decline rapidly as soon as the large company decided to move production elsewhere by choice related to lower cost of factors of production, causing moreover the desertification of entire economic and social areas.

The strategic role of private service providers in support of normal daily activities of residents, is even more evident when you consider that urban space is characterized as “*the densest, the most productive, the most complex of spaces*”, according to various parameters – index of construction industry, residents, stakeholders, economic activities, different skills, creativity, knowledge, structure of employment³.

The ability to attract and the sustainable development have a strategic role for the survival of the places: the increased demand for goods and services through a qualified and specialized supply impact positively on the vitality and livability – *increasing the satisfaction of residents and non-residents* – on the profit performance of economic activities, the value of tangible place assets and general consent to governance.

1.3 Service provider networking in the development of city economies

Major territorial areas with a clear manufacturing identification, in the last years, have been skillful to rebalance the relationship between industrial settlement and dynamic development of service activities in the framework of economic and social offerings of a city or an area using sometimes the lever of events with media resonance extended to start the repositioning of an urban brand through continuous and capillary forms of communication to the stakeholders of this new identity.

Let's consider, among others, the case of the city of *Turin*. Since at least a ten year period, with admirable foresight, it started to redeem the urban fabric and its external perceptions from the town-logo FIAT, (as it was for the *mutatis mutandis* of Termini Imerese) to go toward a new model of identity and a new image of place of culture, of advanced research, of knowledge, of film production, of entertainment, working on touristic and cultural co-marketing of an inter-city and an inter-regional nature. An example of this approach is MI TO, international review of events and cultural performances whose integrated fruition generates synergies and forms of collaboration and cooperation, even between cities and promotes tourist service based exchanges.

Turin is - de facto - a place brand that is prevalent in the Italian region of Piemonte. It represents the tangible example of the strategic foresight of all the players who worked very hard to the strategic redesign of their territory. They had a sharing of purposes with prevalent and obvious top-down choices in technological clusters and in innovation. This has been a winning action of territorial meta-management as all the economic, political, institutional and social components and also University studies and advanced Research have been involved in this place marketing.

These expertise, highly specific and qualified, were combined all together in a marketing plan pointed to change the perception of the identity of the place, to enhance a new one, to intensify relationships of interchange with cities-places-areas that have high planning capacity, to segment the “products and services” and to transmit knowledge of the new assets of the regional territory supplies identified in the historic-artistic heritage of the cities, in the number and the quality of research facilities, in the distinctive features of the locations bordering the county towns, in the town

centers as containers of entrepreneurial of cultural value, in the proximity of areas to be well known winter-like locations.

In the mere point of view of an academic who observes phenomena and deduces considerations and thoughts about it with the purpose of producing models, the Turin and Piemonte case, compared to the cases mentioned before, represents a best practice to be imitated as for predictive capability of context settings and as for new territorial format to be communicated to the market, even of the external investors.

After all the production companies seek, more and more, places and spaces, in these periods characterized by strong stagnation of demand in local environment in line with modern requirements for reducing the cost of the typical factors of production.

There are going to be several years of reconsideration of the territories, of the cities and in particular of the needs of those who live everyday in urban spaces, according to the new rhythms and needs. There will also be the an increasingly strong necessity of sociological and trading support and of assistance of services in general.

As already highlighted, the cities and in general the territorial areas are becoming organized and managed spaces (Minton,2009 and Reeve,1996); the economic trends cited are studied by the marketing and management reference , primarily through concepts related to public and private aggregations for the enhancement of quality of life and the optimization of the evolutionary process of the services and their service providers.

All over the world programs of control, of conservation and of urban re-generation have been designed and initiated, in view of the need of safeguarding the quality of life in the cities, of empowering the city users and of revitalizing urban areas according to new models. In the planning and management of the public and private sectors, many types of governance and especially of collaboration are being used.

Among them we recall the main tools of management and the organizations that have favored the network of service providers in the cities and contributed to limit the impact of the economic and employment crisis in urban areas spreading networks of knowledge and of models.

Many typologies of governance have been utilized in the planning and in the management of private and t public sectors; particularly the main tools of management and the organizations have favored the network of service providers in the city and contributed to limit the impact of the economic and employment crisis in urban areas spreading networks of knowledge and of models: *National Main Street Programme* (USA), *Town Centre Management* (born and developed in UK), *Business Improvement District, Town Center Management place marketing organized* (Italy), *Società di Trasformazione Urbana (STU)*; international organizations – *for example TOCEMA Europe⁴, Institute of Place Management and London ATCM* – for the safeguard of the city centre.

Also in England the tendency to value the service provider in the city is very strong. Over 600 coordinated management experiences of the redevelopment of the city from the perspective of management place between 1998 and 2006 and the activities have enhanced the services and related service providers.

Throughout Europe there is an ongoing process of reorganization of urban areas and in particular in urban areas according to evolving new principles and new demands of city users, investors, companies of different nature.

The governments of countries seek to protect the interests of economic development and sustainability-related in the light of a revolution in services, in advanced services, and the now recognized importance of group and social services for the city.

The contribution of Van den Berg (1990) through the key of the three levels of place marketing identifies the city as a product to be studied by parts and by homogeneous groups - different urban cluster - including, for example, the cluster retail as a synthesis of a homogeneous category of service providers, in some cities identified as Relevant Service Provider, and like driver of the economic revitalization of the urban⁵.

In the concept of place marketing on three levels clusters interact with each other defining the image of the place (in this case the city), because thanks to the interactions between the components, it conveys the place as a single "entity". The single entity values is greater than the value of the individual parts, in which, in certain cases, the retail acts as a economic development leve in a process of urban requalification.

Strategic marketing planning allows the actual development of the systemic interactions between the "places" in the city; therefore in advanced cases in which urban environments are deindustrialised necessarily economic development comes from the service industry and service providers. The task of the marketing strategy for the

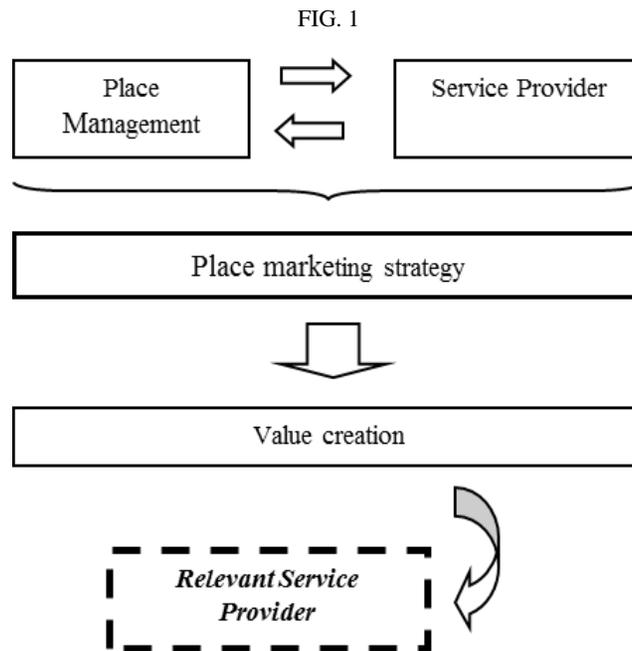
development of the territory is the systematization of the interactions between local stakeholders, for the identification of relevant service providers, which can contribute to the distinctive characterization of the place.

The place marketing management allow for strategic planning towards value creation and sustainable development in areas with strong relations between the local contest and service providers; some of them could be distinguished by efficiency and capacity by proving services to other stakeholders in different places, through knowledge, training and technology development.

In this sense the place management, converts the area into a productive servicescape in which the services are developed in view of “servuction” (Langeard, 1981) and emerge in parallel with relevant service providers capable of positioning the area and determine the development and value creation⁶.

The servuction model highlights the experiential aspects of purchases of goods and services by consumers, who will get the desired benefits through a service divided into visible elements –*environment within which the service experience occurs and the contact personnel of service providers who interact with the consumer during the service experience* - and invisible - *the performance explained at the time that you consume the service or experience, also characterized by the culture of the place* -.

This means that the visible and tangible environment can significantly affect service provider and, therefore, the "places" - *cities, stores, streets, shopping malls, various businesses, etc.* - contribute to offer the best possible service and at the same they are supported by the service provider - *possibly through a place marketing strategy, creating the opportunity for the development of Relevant Service Provider* -. It then generates the two-way relationship described in Figure 1.



The model has also found support in research of Warnaby and Davies (1997); the authors have highlighted the strong role of retail⁶ integrated in the city, understood in a holistic sense as suggested in the approach to development of the area proposed by Ashworth and Voogd (1990a and 1990b). The integration between the development strategies of each service provider, allow for definition of the place positioning.

The expansion and growth of cultural and managerial skills allow to facilitate the assimilation of knowledge and complementary skills from the outside⁷ and to multiply the effects towards development.

1.3 An empirical analysis of service provider in place management

About subject that has been described above, the aim is to analyze some case studies in which it is possible to find the strategic role of service providers in the creation of clear and identifiable place positioning and image, the process that leads therefore to identify "the place" generating benefits for internal stakeholders and attracting many tourists.

The de-materialization and the optimization of industrial processes, the crisis of employment in sectors with high level of industrialization and labor issues have led businesses to outsource and to divest plants and business structures (Levitt 1976; Heskett, 1986; Gershuny and Miles, 1983).

The city of *Liverpool*, for example, in the years '70 underwent this phase of de-materializing both in the more central urban area – with the demise of several factories - and in the urban area of the port – with the port sector crisis due to technological developments and the advent of containerization-

It is greatly reduced the demand for one type of labor and unemployment has increased. This reality has been configured as the real impetus for the redevelopment of the city towards services and knowledge.

It was studied new placements in the city according to service-oriented logic, through new legislation that favored public private initiative and the approach to "places" and to the territories in marketing optics.

In a long process of overall redevelopment, starting from the years '90, the city has been transformed and the public-private initiative has brought important results.

The city's skyline has changed and strategic commitment towards common development goals was shared by both private investors and the local government. - Liverpool was awarded the title of Capital Of Culture 2008 - .

Among the significant initiatives that have enhanced the competitiveness of the city there is Liverpool ONE. Liverpool ONE is a project of urban renewal that has been the motor of economic development town by focusing on trade and services, engaging more than 920 million pounds.

The redevelopment project has revolutionized a vast territorial area of the city centre and encompassed management of streets and public squares according to agreements with the local government.

As evidence of the importance of service providers in the redevelopment of the sites we report the case of the recent "renewal" of Rome's Air Terminal Ostiense, generated by the intervention of private investors - Eataly and NTV-. The terminal Ostiense was born as one of the jewels of the World Cup in 1990 and was to be privileged even after the joint for the connection between the city and the airport of Fiumicino. However, since a few years it is the subject of a thorough and costly retraining, especially thanks to private initiative, which returns it to the city as a multipurpose facility.

The intense redevelopment began with the advent of NTV - *Nuovo Trasporto Viaggiatori*, an Italian railway undertaking operating in the field of high-speed rail. Later, in June 2012, the Rome's Air Terminal Ostiense also became the seat of Eataly Roma, which weaving catering, sales and teaching, art and food, allowed to redevelop an area in decline and at the same time to revive the strengths of 'national economy.

In favour of the whole area involved, the two Companies, while operating in different business areas, managed to give a high added value to a high number of stakeholders.

In particular, NTV and Eataly, for the entire urban area represent a major operation on employment, cultural and urban regeneration⁸, as well as a source of attraction for residents and for the number of tourists visiting Rome, but also for new business opportunities .

The space is also upgrading from the functional point of view due to the presence of "Casa Italo" NTV that, with its many services, can improve the quality of people's lives. Inside the building, the perimeter architecture is designed as a wrapper collected and furnishing elements form circular islands where the traveler can enjoy a range of services. For over a decade the Ostiense⁹ area is a laboratory of urban development in which they were tested the original architectural and urban solutions. It has always been considered a strategic point for the modernization and transformation of the city for three main reasons: the extraordinary nature of the urban landscape, which is characterized by the presence of historically significant buildings such as the former Tobacco Factory, strong local identities as Garbatella, San Saba and Testaccio, high representation of buildings such as the University of Roma Tre, industrial areas disposed of in the course of transformation as the former slaughterhouse, the area Italgas and former Mercati Generali, and finally examples of industrial archeology and cultural goals such as the Teatro India and Montemartini.

Therefore, the presence of Eataly and Italo House represented the beginning of the renaissance of the Ostiense district. The spearhead of this revival is the Air Terminal that from an urban blight has become one of the most important centers of attraction in the city.

Due all of these elements Ostiense can be defined as the neighborhood with *“the highest tone of a total transformation of Rome”* to the benefit of its residents, tourists and the entire urban area.

Another relevant example is that of the “Trans-Siberian Railway in Italy”, a disused railway that connects Sulmona-Carpinone, which was reopened for tourism purposes. In particular, the present project is the re-opening until Castel di Sangro, offering tourists the experience of traveling in space but also in time: the journey, made on board the carriages of the 20's, through the National Park of Majella and climbs up to Rivisondoli-Pescocostanzo, where there is the second highest railway station in Italy, after the Brennero. A path that winds through forests and beautiful landscapes, from the Majella and Gran Sasso, with a variety of climates and vegetation that have earned the Railroad Park the nickname of Trans-Siberian Railway in Italy. On the occasion of the transit of vintage trains along the line, are also organized several events in the stations cross, with a tasting of local products.

The sellout of the trips shows that the introduction of a given service, in this case also redeveloping disused structures, can be driver of an entire place area, and if this is supported through consistent marketing strategies, the place will have an image and a positioning such as to compete nationally and internationally.

References

Contact Author for the list of reference.

End Note

- [1] On the issue of outsourcing, including the different contributions of the American school, it reports JB Quinn, Hilmer FG (1994), Gattorna (1998), Barthelemy, J. (2001), Mclvor, R. (2005).
- [2] In Italy there are a lot of example: the experiences of the Town Centre Management, the company for the development of tourism in the collective mode, the association between public and private through agencies for development of the territory according to shared projects by economic actors of the territory and the public bodies. Abroad experiences are varied, especially when referring to the city. An example is the experience of Northern Europe related to TCM (Town Centre Management) and the BID (Business Improvement District)
- [3] BASTIÉ J. E DEZERT B., *L'espace urbain*, Masson, Parigi, 1980
- [4] TOCEMA EUROPE is the European network of Town Centre Management (city centers) created within the framework of the European program INTERREG IIIC. It is the result of extensive and diverse partnership of local, regional and state-controlled institutions such as national associations of Town Centre Management. It promotes initiatives of Town Centre Management across Europe and encourages the implementation of innovative projects for urban development. Its purpose is to create a European network for the Town Centre Management, which deals with issues of urban development such as trade, the urban environment (cleanliness, safety, livability, etc. ..), tourism, culture, accessibility, residence.
- [5] Warnaby (2004), demonstrates the important role of retail in the marketing development of cities included in the TCM schemes. WARNABY, G., BENNISON, D. AND DAVIES, B.J. "Retailing and the Marketing of Urban Places: A UK Perspective" *International Review of Retail, Distribution and Consumer Research* Vol. 15, No. 2, pp. 191-215
- [6] It therefore creates a situation of mutual influence that stimulates one hand, the service providers to tend towards excellence, on the other territories to enhance the skills and knowledge generating internal value.
- [7] Some Authors (Moras et al, 2004) consider the retail - specific variation in the services industry - in the center of the design of urban redevelopment arguing, often rightly, that the need for integration in place planning is increasingly evident and, in a environment characterized by a very detailed legislation, local authorities should consider the need to integrate the development plans and redevelopment of the city - traffic plans, urban transport management, retraining programs and economic revitalization, tourism, security and recovery programs
- [8] It is within the internal development of absorptive capacity (Cohen, Levinthal, 1990); the absorptive capacity is the ability of absorption or the ability to recognize the value, of appropriating and exploiting new knowledge or information
- [9] The regeneration also occurs by an architectural point of view, since it involves existing buildings that have a high symbolic and cultural value to the city level
- [10] Ostiense is the tenth district of Rome, the population of the urban area: 8266 inhabitants. The Ostiense is among the top 15 districts were born in 1911, officially established in 1921 and took its name from the neighborhood has seen Ostiense. It start your own urban development around 1907, when the Mayor Ernesto Nathan began to promote the creation of a industrial district at the beginning of the Via Ostiense. On this drive, and also because of the Master Plan of 1909, the Port River were built, the gasometer, the Montemartini and General Markets.

**The importance of automotive services in the distribution business and
their critical factors for success**

*Stadlmann Christian, Christian.Stadlmann@fh-steyr.at
Barbara Ehrenstorfer, Barbara.Ehrenstorfer@fh-ooe.at
University of Applied Sciences Upper Austria, Austria*

The importance of automotive services in the distribution business and their critical factors for success

Abstract

In many industries, services are an increasing source of business expansion and offer the chance to enhance customer relationship management, interaction and retention. In the automotive business numerous new services for end-consumers are discussed in various professional and scientific papers and conferences. However, the importance of services to end-consumers and the success factors in providing them may differ among countries as the regional market development and the strategies and performance of the local market automotive leaders vary. Moreover, many of these services are directly provided through the automotive distribution channel which are mainly the independent or franchise automotive distributors. Therefore, this paper examines the importance of services for car and motorcycle dealers and critical factors for being successful with services through a qualitative study conducted with 20 automotive experts comparing four different geographic areas (Austria/Germany, Poland, Italy and the Czech Republic) in the framework of a European research project.

Introduction

Services play a major role in the post-industrial economy. Beside their tremendous impact on GDP as well as on total employment, services are of significant importance in the so-called “service sector” and in most manufacturing industries (Grönroos, 2007, pp. 2). Gebauer et al (2011) highlight that services are not only a sustainable source of competitive advantage and hard to imitate but also provide financial opportunities through additional revenues and improve the chance of increasing customer interaction quality. Also in the automotive industry, services play a fundamental role. Already in 2000 Ealey and Troyano-Bermúdez emphasized that managers of the automotive manufacturers need to focus on all vehicle-related services to be successful in the future. Kessler and Stephan (2013) argue that especially in mature automotive markets (like Western Europe) where little potential for development and growth predominates, services can support the OEMs in enhancing brand differentiation, overcoming cyclical demand fluctuations and defeating price erosions in high-margin segments. Above that, they point out that the automotive manufacturers generate a significant turnover from business customers, namely fleet owners. They report that in 2011 Volkswagen *already sells 40% of new cars to business customers, more than half are used in fleets* (Kessler and Stephan, 2013, p. 242). Cohen et al. (2006) underline the importance of services for car manufacturers through a comparison of the income from aftermarket sales revenues compared to the one generated by car sales by using the example of GM which *earned relatively more profits from \$9 billion in aftermarket sales revenues in 2001 than it did from \$150 billion of income from car sales.* (2006, p. 130). Following the examinations of Kiefer (2001, p. 304) the manufacturers generate approx. 50% of the turnover and 70% of the profits through downstream activities in the entire lifecycle, i.e. by products and services following the new car sales. Moreover, Hawker (2011) calls attention to the fact that despite increased competition in the primary market, i.e. new car sales, the market repair and maintenance services still provides car manufacturers with monopoly profits. This market power of OEMs and the linked profits of the service business will be preserved in the near future because of upcoming and pervasive vehicle information technology and new design patents. Both require augmented investments in equipment and training and therefore protect the OEMs from third party market entrants.

In the last decade vehicle manufacturers controlled most of the original equipment service business (Subramoniam 2009) from safety or convenience systems to rather simple parts subject to wear. Although the EU block exemption regulation tried to open up this restricted business of aftermarket services in 2002 the latest regulation turned back to more restrictive rights for the OEMs (John, 2013).

Moreover, the automotive distribution chain benefits from new technologies and linked services. The vehicle manufacturers provide their controlled sales channel, i.e. owned distributors and franchise dealers the possibility to benefit from services through restricted third party access to key pieces of intellectual property (Hawker 2011). Services are an important profit contributor for distributors. Kiefer (2001, p. 313) splits the service spectrum into three

areas: mobility creating (like consulting, financial service, insurance, rent, car sharing, training or recycling), mobility securing (e.g. technical service, full-service-leasing or fleet management) and mobility enlarging (like mobility cards, pool leasing, travel agencies or customer clubs) service activities. He emphasizes that services can lead to more customer purchases, higher additional profits or better predictability of resource utilization (e.g. leasing contracts require continuous repair services). This is consistent with the study of Lademann et al. (2001) about common consumer attitudes and customer purchase decision criteria which found that price and personal contacts are seen as being of less importance than guaranteed service provision for new car purchases. Thus, offering services are a prerequisite for new vehicle sales as well. Grünhagen's et al. 21-year longitudinal analysis (2011) additionally points out that the amount of services offered has an impact on the survival chances in the US automotive business. They found out that franchising dealers with a broad range of services tend to have greater longevity than those with a small range. Moreover, they identify that the number of automotive services of franchisors increased even in times of recession. Summing up, services do not only seem to be of future importance for the automotive OEMs but also for the directly linked distribution chain members, i.e. the automotive dealers.

Literature review

The literature about service marketing is enormous as it emerged as a separate area of the marketing discipline in the late 1970s. Brown et al. (1994) pointed out that in the 70s the development and emergence of service marketing was started with the goods versus services marketing debate. According to their research, the high interest and enthusiasm in service marketing grew explosively beginning in the late 80s. Over these past two decades manifold research has emphasized the characteristics of services (Zeitlhaml et al. 1985, Edgett and Parkinson 1993, Edvardsson 2005). Among others, intangibility was defined as one of these typical characteristics of services. However, Vargo and Lusch (2007) emphasized moving away from the service characteristics perspective thus, as well as from the intangibility argument. They argue that these characteristics only become meaningful if a product perspective is adopted. They rather proposed a change to a "service-dominant (S-D) logic" as the central intention of economic exchange.

In a recent study of Kunz and Hogueve (2011) however, the past, the present and the future research topics of service marketing were investigated. With a citation-based measuring method they highlight the significance of specific research opportunities and topics of recent literature reviews. Among others, they suggest that future promising service marketing topics are service infusion as well as enhancing and managing the service value chain. Service infusion means to differentiate the business by focusing on services as a core offering which are recognized by customers (Kowalkowski et al. 2013).

This study tries to contribute to the identified topics of Kunz and Hogueve (2011) as it discusses the infusion of new services in the automotive dealership business and the critical success factors in enhancing services in a specific link of the automotive distribution chain, i.e. at the dealers' level.

Purpose and aim of research

Godlevskaja et al. (2011) identified several trends which influence the services provided in the automotive industry. Among others they point out changes of customer behavior, such as an increase in customer mobility and brand sensibility, a change of customer requirements towards customization and a rise of non-ownership mentalities. Further, they underline that vehicle manufacturers transform the industry through an enlargement of product range and complexities, the embedding of ICT and disruptive technologies in vehicles and the extension of their core-businesses with additional and product-independent services. These changes have an impact on the distribution chain as well. Therefore, this study investigates the importance of services in the automotive dealership business based upon key forces and trends shaping the automotive market in 5 different European countries. The focus is put on two areas of the automotive market, i.e. the car and the motorcycle business. These two areas of investigation have been selected because of the idea that possible findings in one area (e.g. car distribution) may be supportive for the other area or vice versa. Moreover, there are already many manufacturers, like BMW, Volkswagen, Honda or Suzuki, which produce both kinds of vehicles and their distributors sell them parallel. Therefore, the driving factors for the

establishment or enforcement of particular services of dealers are examined and country and industry specific variations are figured out.

Moreover, many scholars emphasize that the transition from product focus to service focus requires changes in the management of the company and its culture and the development of new capabilities, practices, resources or structures (Reinartz and Ulaga, 2008; Jacob and Ulaga, 2008; Ulaga, et al. 2011; Kowalkowski, Witell and Gustafsson, 2013). Kessler and Stephan (2013) underline these necessary changes and develop a model for successfully transitioning into an integrated service provider for the car manufacturers. However, the success factors for the upstream distribution chain members are rarely discussed in the literature. Therefore, the second aim of this study is to identify critical service success factors at the automotive dealership level.

Finally, the study aims at working out similarities and differences among the investigated countries and provides insight into the expert's explanations referring to the two research questions:

- 1) How important are services as key factors for the success for automotive dealers?
- 2) What are the critical success factors for service business of automotive dealers?

METHODOLOGY

It was decided that the most appropriate method to adopt for this explorative-descriptive investigation was to use a qualitative approach by conducting expert interviews due to the insightful character of qualitative inquiry (Patton 2002). This methodology and method applied, enables an exploration of a broad and in-depth expertise from various perspectives of different organizations in different countries in respect to the subject area of automotive dealership management. Bogner et al. (2004, p.7) point out that experts offer insider knowledge through their key positions and accumulated expertise, especially in a field where the target group concerned, i.e. the automotive dealers, do not perceive the importance of new services and have little awareness about their necessities to be successful in offering these services (Stadlmann et al., 2013). Thus, 20 experts were selected and interviewed in four geographic regions, i.e. Italy, German speaking region (Austria/Germany), the Czech Republic and Poland. In each region the chosen sample consisted of five experts from various fields to explore the topic from different perspectives for the following reasons:

- one expert of a sales or marketing department of a car manufacturer or of a National Sales Company (NSC) or importer of the OEM to get a broader perspective from the car business point of view,
- one expert of a sales or marketing department of a motorcycle manufacturer or of a National Sales Company or importer of the OEM to get a broader perspective from the motorcycle business point of view
- one key personnel or trainer of a dealer training institution - contracted by an OEM or a NSC – as his/her main job is to prepare dealers with knowledge and skill necessary for current and future survival and success,
- one expert of an automotive association (top representative) or automotive media (experienced automotive journalist) to gain industry wide knowledge as OEMs often only operate in certain segments (e.g. premium car segment) and
- one key professor in sales or marketing with expertise in distribution management.

The respondents of the face-to face interviews were selected by using a purposeful sampling strategy (Patton 2002). Therefore, and in order to meet the requirement of selecting information-rich cases strategically and purposefully (Patton 2002), the key informants have been determined from a pool of experts of various fields (distribution, green mobility, IT, sales, finance etc.), different countries and different organizations (such as automotive enterprises, dealers, training institutions, companies, higher education institutions and automotive associations) aiming at variation (heterogeneity).

Two methods of data collection were employed, namely telephone interviews and face-to-face interviews. The interviews were semi-structured aiming at a focus on richness rather than volume of the information provided and allowing transcriptions. The questionnaires used were open-ended or causal questions. This led to essay-format answers. All interviews were conducted in the mother tongue which was preferred to capture the richness of answers. The field research was performed in the period from April to July 2012. Finally, the transcripts were translated into English and allowed the researchers to compare the results and perform a deeper content analysis. Even though the

investigation carried out in the framework of the European Union project encompassed a broader range of topics, this research placed emphasis on the expert's opinions about the future importance of services for dealers and their critical factors of success in dealership.

Findings

The major findings of the study are presented in accordance with the two research attentions. Herewith, the focus is put on the experts view about the most important current and future services in the automotive dealer business and their critical related factors for successful realization.

The importance of automotive services in the distribution business

In general, services in the automotive distribution business (car and motorcycle) are considered of major importance by the experts disposing of extensive experience with regard to the markets in Austria/Germany, Poland, Italy and the Czech Republic. Bearing in mind the differing market situations and the intrinsic characteristics of the four markets, services are seen in relation to technological aspects and advancements and therefore driven by technology to a large extent. Given the focus on technology, new forms of mobility arise such as various electric vehicles addressing both cars and motorcycles. Correspondingly, new trends in terms of mobility arise influencing the customer's requirements and behavior which accordingly influence the service offers of dealers. The experts highlighted that mobility services including rental services are currently a relevant field of action in the four markets and will become even more so in future.. One of the key findings is that car sharing seems to be highly in demand by the customers across the four markets. Currently, a broad range of car sharing and car renting models already exist. For instance, in Austria, it is possible to use a chip card to unlock the car and then the costs are deducted on a certain account (cf. A2) or car sharing vehicles are spread all over a city, whereupon access is gained via an app and afterwards the vehicle is placed somewhere and payment is made by credit card (cf. A5). Additionally, "Drive now" services are offered in Munich, Berlin, Vienna, meaning that a mobility service provider offers different vehicles to be used at a certain price per kilometer (cf. A5). In Italy, car sharing in big cities is becoming a new integrated mobility concept as well as renting cars from local municipalities (cf. IT3). Hence, it can be observed that people are changing their mentality concerning ownership (cf. IT3). Furthermore, car sharing models with the possibility of renting a car for a very short period (10 minutes or 1 hour) including benefits of being able to access the city's historic center, special parking areas and use fast lanes (cf. IT4) are in increasing demand. One more possibility would be car sharing offers such as the "Zipcar" company in the USA and the UK where customers could rent a car for example, going on holiday or shopping outside the city instead of owning a car or a second car (cf. IT4). According to an Italian expert, dealers should become a car terminal or a point where one could go and rent a car or a station functioning as a car sharing service (cf. IT4). In the Czech Republic it appears that there is an increasing need for rental services for customers who don't use their car every day (cf. CZ1) and an expert pointed out that there is potential to offer additional mobility related services like car renting for customers who besides their own car need another car for holidays or weekends (cf. CZ5). Also in Poland renting cars or a close cooperation with companies offering short-term lease of cars (cf. PL1) is an area where action could be taken in the automotive service sector. Apart from these examples of services, consideration should also be given to the fact that mobility services are strongly related to the geographical area where they are to be applied. Undoubtedly, it is crucial to distinguish between offering services in rural and urban areas and adapt activities accordingly. In particular, the experts expect that the urban customer will demand innovative models of mobility and it will be a challenge for dealers to adapt related services and be flexible in the understanding of mobility concepts (cf. A5). To sum up, it is crucial, therefore, that initiatives are geared towards offering adequate and customer oriented mobility concepts like car renting and car sharing models.

The respondents reported that another relevant field in terms of services is **electric mobility**, having an impact on the customer's mobility behavior and requirements. These findings are consistent with those of Abdelkafi et al (2013). As manufacturers and suppliers have to face changes in their daily business routine related to electric mobility, the dealers are additionally asked to offer the corresponding services so as to be up to date with regard to technological innovations (e.g. hybrid technology).

Furthermore, experts suggest that dealers in the four markets (Austria/Germany, Italy, Poland, Czech Republic) might concern additional or **innovative sources of financing or to enhance leasing services**. The informants declare that in the future leasing of cars will increase and therefore, the need for a variety of services /offers in this area both in the car and motorcycle sector will arise. This result is consistent with those of Kessler and Stephan (2013) who highlight that especially fleet customers increasingly demand these services. Interestingly, in the Czech Republic smaller corporate customers do not purchase large fleets through operative leasing (cf. CZ 3).

Moreover, **information services** are considered of major importance in the four markets, for instance new purchasing software that will be able to help customers, for example, to choose the color of their future car or to show its technical features (cf. IT3), online information services including activities such as online advertisements, Facebook (cf. CZ1) and possibilities of presenting multimedia content and car configurations on a website (cf. PL2). Beyond these examples, a wide range and variety of services was mentioned by the experts. Additional services revealed are listed below (in extract):

- Additional services like roof rack rental office, roof varnish, seasonal services such as storing winter tires (cf. CZ1)
- Offering test rides (cf. PL1, AT1)
- Potential would be in offering rental of accessories such as bicycles carriers, ski carriers but also bicycles as super standard service. (cf. CZ5)
- Offer additional services such as accessories at attractive prices, insurance and extended warranty for free (cf. CZ3)
- Telematics – additional feature to support/control the service needs (including test rides) (cf. A4)

Country specific findings

Strikingly, a result from the investigation was that there are several differences with regard to the four investigated markets within Europe. First of all, as our findings demonstrate, there is a diverse approach to vehicles across the investigated countries. In Poland, a car is a sign of luxury and social status rather than purely utilitarian object (cf. PL1), whereas in Italy it tends to be the case that vehicles are seen from the pragmatic and useful mobility point of view by many people. In Italy, the second hand market is on the rise and also in the Czech Republic and Poland whereas this is not true for Austria. Polish people appreciate the quality of cars and tend to refuse to buy a lower quality car and, according to experts, fashion trends do not influence the Polish customer to a large extent (cf. PL1). Czech customers seem to be very loyal and stick to tradition and long proven quality and this is exactly the point where there is still potential to sell additional services (cf. CZ1). In Austria, cars are, apart from the daily mobility usage, seen as a leisure product (cf. A1).

In Italy it can be observed that the significance of the second hand market owing to economic aspects is enormous. There are also new business opportunities in the second-hand motorbike market (cf. IT5). According to an expert, the reason is that only a small number of dealers have so far specialised in the used car business market. Therefore, changing the business model towards used cars seems to be a promising opportunity and further, services linked to the used car business appear as a challenge, e.g. reconditioning of used cars (cf. IT4).

Czech experts stated that services linked to very old cars are important (cf. CZ3) and for this reason dealers should offer services such as extended and top-quality warranty of mobility, provision of a substitute vehicle and extended warranty when a used car is purchased (cf. CZ3).

Referring to the informants, the Polish market can be characterised by the following features: The need for immediate service of second hand cars is limited due to the fact that they are imported from abroad in a reliable and excellent technical condition (cf. PL1). However, as this market is three times bigger than the new car market (cf. PL2) – which is similar to the Czech market – automotive services linked to used vehicles seem to be auspicious. Furthermore, Polish roads are often in bad condition and cause damage. Therefore, urgent services such as “Mobilo warranty” or warranty service agreements appear to be important elements in the dealers’ service portfolio (cf. PL 2). Moreover, there are still growth opportunities as the service workshop network (cf. PL1) is not fully established throughout Poland. Concerning the location, the car shop is still highly important as a place of representation (cf. PL2) to attract new customers – also for service business. Finally, the economic situation and an extensive discount policy

have caused a decrease of profitability. Therefore, OEMs require dealers to pay extra for single cars (cf. PL1). Hence, services get even more important as they require either only little or no pre-investment for the single service activity.

There is evidence to suggest that in Austria infotainment and entertainment services as well as event management is on the rise. An expert stated that in general, the offers of the car sector will clearly increase and therefore an entry into mobility and other services would be necessary. Offering service and integration like infotainment (e.g. information and entertainment via internet, television, mobile phone integration, service hotline for free time organisation, automatic service registration) will become extremely important, also for electric vehicles (cf. A2). In line with the experts, future services for the premium sector, additionally to advisory service and product consulting would be, for instance, to host entertainment and infotainment events at the dealers place (cf. A2).

Critical success factors for service business of automotive dealers

In identifying the critical success factors for service business of automotive dealers emerging from the fieldwork it was highlighted by the experts that **finance and management** in general and in respect to services in particular, is of upmost significance across the 4 geographic areas. Beside the dealers' ability to skillfully manage their financial situation (cf. PL1) the experts stress the necessity to rationally decide based upon facts and figures (cf. IT4) and manage the relevant data (cf. PL4). For that a continuous monitoring of the market is essential (cf. CZ1). Further, it was emphasized that the dealers need to professionally establish and manage sales and service processes (cf. CZ1) and after sales activities (cf. PL4). Furthermore, it was highlighted by the experts that a close cooperation between the dealer and the OEM (cf. CZ2, PL1, CZ5) and good relationships with stakeholders like insurance agencies, banks, leasing companies etc. is crucial in order to offer suitable solutions (e.g. in case of accidents).

Drawing on a number of statements, **strategic planning and strategy related aspects** such as the decision to take up a single or multi-brand dealership model are decisive for the development and success of dealerships.

An expert from Austria stresses the advantages of single branding and mentioned this model as a factor for their companies' success owing to the specialization and focus on one brand. Additionally, one has to consider the environmental features and influencing factors on both the regional and national level. In particular, urban and rural areas provide a different basis for dealers and on product selling and services.

A further success factor mentioned by the informants from the Czech Republic is to shed light on the different **customer groups**, for instance fleet, family, starters, elderly customers and women. Services and offers should in fact be strongly oriented towards customer groups and in accordance with an analysis of the lifestyle of each customer group. For example, it tends to be that dealers in the Czech Republic are currently not well prepared for female customers and thus a suggestion of an expert was to employ woman at dealer stores aiming at enhancing understanding the requirements and expectations of female customers. This finding is in agreement with Homburg's et al (2002) findings which showed that customer orientation has a positive impact on emphasis on services, the number of services and the broadness of service offerings.

The experts stemming from Austria, Italy, Poland and the Czech Republic attach importance to **values** in the automotive dealer business. So, on this note, a main success factor seems to be the authentic application of values in daily business related to the customers. Frequently mentioned values are honesty, reliability, loyalty, punctuality, availability, transparency, keeping promises, empathy and fair communication with the customers.

Moreover, undoubtedly, customer and service orientation are a crucial success factor. By additionally approaching customers on an individual level, adapting to their needs and habits and consulting pro-actively trust can be established and thus loyalty increased (besides the prerequisite of high quality of sales processes and services). Another significant aspect underscored by the experts is the increase in advisory services interrelated with a change referring to the role assumption from salesperson to counselor.

There is evidence to suggest that skills, education and training of the whole personnel are vitally important success factors. The respondents agree on the relevance of up to date knowledge and skills in the areas of:

- New technologies (dealing with the increasing complexity of new cars) (cf. A1)
- Financing (comparison and analysis of data as well as know how to understand the figures) (cf. A6)
- Systems (ordering spare parts, equipment, service, warranty, Customer Relationship Management) (cf. CZ2)
- Products and services (cf. PL2)

- Social Skills: efficient communication of the offer (cf. PL4), skills for working with ‘VIP’ customers (cf. CZ2)

Given the increasing training needs on account of fast technological advancement (e.g. multiple drive mechanisms (cf. A2)) and the fact that customers are nowadays better informed, **extensive and up to date knowledge** is a success factor. Hence, lifelong learning related to the whole personnel (from the mechanic to the foreman and the service technician to the sales person), technical trainings and refresher trainings contribute to a strong position on the market. Consequently, continuous staff development and suitable training combined with activities which increase employee loyalty support the dealers to maintain a sufficient human resource base which is fit for the future.

Experts accentuate the value of dealers focusing on **new technologies and new forms of mobility**. Technological changes as well as changes in the forms and concepts of mobility in the 21st century force dealers to invest in new technologies and accompanying services, e.g. photovoltaic charging solutions for electric vehicles and the adaptation of service offers, for instance, car rent and financial and insurance products such as short-term lease. Also in the area of marketing activities new forms of technologies and communication should be used, e.g. social media.

Finally, the experts point out that offering services with regard to events and adventure would be a promising way to achieve success. This means being a service center, as for instance, Toyota’s main office in Tokyo offers a visit to an adventure cinema (4D or 5D). Also European dealers might take the chance and arrange seasonal and local events so as to gain a strong market position.

Differences between the motorcycle and car dealer business

An outstanding characteristic of the motorcycle business is the **role of emotions** in the whole business process. In accordance with the statement of the experts motorcycle dealers tend to be more customer orientated and more attached to the motorcycle lifestyle than car dealers. Moreover, they seem to sell by appealing more to customers’ emotions. Moreover, experts expressed the need that dealers have to act as role models for their customers in terms of the motorcycle lifestyle. This means that dealers have to convey emotional experiences to their clients with activities even outside normal working hours, e.g. motocross tracks, trips or test rides with new products (cf. A3), which are definitely crucial success factors in the motorcycle business. Apparently, this might also be a starting point for car dealerships to take on the significant role of emotions and transfer it to their daily business practices.

Limitations and further research possibilities

In this investigation there are several sources of uncertainty to bear in mind which are stated and explained below. Firstly, from a general point of view one has to state clearly that the results from the qualitative research are not representative of a population. According to Brymann (2012) instead, the findings of qualitative research are to generalize the theory rather than the populations. It is the quality of the theoretical inferences that are made out of qualitative data that is crucial to the assessment of generalization. Consequently, the interpretation and application of the results and findings have to be assessed in the light of restricted generalization of this research data.

Secondly, it has to be considered that, owing to the size and the heterogeneity of the geographic areas (Italy, Austria/Germany, Poland and Czech Republic), the sample size of experts is rather small, although the careful selection of information-rich cases promotes the utility of the findings to a certain extent. Hence, further data collection would be required in order to cover the distinctive features and the various specific regional and national characteristics and to contribute extensively to the knowledge in the field of automotive dealership management. One alternative way to discover further in-depth knowledge in this research area would be to conduct a Delphi study bearing in mind the potential of the assessment and discussion of the expert’s opinions and judgments in a feedback group communication process.

Thirdly, one has to consider, that the translation from the local languages (German, Italian, Polish and Czech) to English bears the risk of misinterpretations of meanings or mistranslations, albeit this cross-national study facilitates the comparison of different European markets, requirements and views.

The differences between the motorcycle and the car business and the diverse cross-national circumstances indicate that this research could be extended to other geographic and business areas, such as into the truck or agricultural sector which extensively operate with dealers as well.

Acknowledgements

The authors would like to thank the European Commission for its generous financial support of the multilateral project “Developing New Distribution Skills” in the framework of lifelong learning. The presented research was embedded in this multilateral project and is also supported by the Polytechnic University of Marche, University of Gdańsk, Skoda Auto University, and the KTM Sportmotorcycles and Snap-On Business Solutions enterprises. The authors would especially like to show gratitude to the researchers Pavel Strach, Silvio Cardinali, Marcin Skurczyński for conducting the field research in their home countries and Boban Krcic for supporting the data analysis.

References

- [1] Abdelkafi, Nizar; Makhotin, Sergiy; Posselt, Thorsten (2013): Business model innovations for electric mobility – what can be learned from existing business model patterns? *International Journal of Innovation Management* 17 (01), p. 1340003.
- [2] Bogner, Alexander; Menz, Wolfgang (2005): Expertenwissen und Forschungspraxis: die modernisierungstheoretische und die methodische Debatte um die Experten. *Das Experteninterview*, Vol.2, Bogner, Alexander; Littig, Beate; Menz, Wolfgang, eds. Wiesbaden, VS Verlag für Sozialwissenschaften, pp. 7-30.
- [3] Brown, Stephen W.; Fisk, Raymond P.; Bitner, Mary Jo (1994): The Development and Emergence of Services Marketing Thought. *International Journal of Service Industry Management* 5 (1), pp. 21–48.
- [4] Brymann, Alan (2012): *Social Research Methods*. 4th edition. New York. Oxford University Press.
- [5] Cohen, Morris A.; Agrawal, Narendra; Agrawal, Vipul (2006): Winning in the Aftermarket. *Harvard Business Review* 84 (5), pp. 129–138.
- [6] Diez, Willi (Ed.) (2012): *Grundlagen der Automobilwirtschaft. Das Standardwerk der Automobilbranche*. 5th ed. München: Auto-Business-Verl. (Unternehmensführung).
- [7] Ealey, Lance A.; Troyano-Bermúdez, Luis (2000): The automotive industry: A 30,000-mile checkup. *McKinsey Quarterly* (1), pp. 72–79.
- [8] Edgett, Scott; Parkinson, Stephen (1993): Marketing for Service Industries - A Review. *Service Industries Journal* 13 (3), pp. 19–39.
- [9] Edvardsson, Bo; Gustafsson, Anders; Roos, Inger (2005): Service portraits in service research: a critical review. *International Journal of Service Industry Management* 16 (1), pp. 107–121.
- [10] Gebauer, Heiko; Gustafsson, Anders; Witell, Lars (2011): Competitive advantage through service differentiation by manufacturing companies. *Journal of Business Research* 64 (12), pp. 1270–1280.
- [11] Godlevskaja, Olga; van Iwaarden, Jos; van der Wiele, Ton (2011): Moving from product-based to service-based business strategies: Services categorisation schemes for the automotive industry. *International Journal of Quality & Reliability Management* 28 (1), pp. 62–94.
- [12] Grönroos, Christian (2007): *Service management and marketing. Customer management in service competition*. 3rd ed. Chichester, West Sussex, England, Hoboken, NJ: J. Wiley & Sons.
- [13] Grünhagen, Marko; Flight, Richard L.; Boggs, David J. (2011): Franchising During Times of Economic Recession: A Longitudinal Analysis of Automotive Service Franchises. *Journal of Marketing Channels* 18 (1), pp. 57–77.
- [14] Hawker, Norman W. (2011): Automotive aftermarkets: A case study in systems competition. *Antitrust Bulletin* 56 (1), pp. 57–79.
- [15] Homburg, Christian; Hoyer, Wayne D.; Fassnacht, Martin (2002): Service Orientation of a Retailer's Business Strategy: Dimensions, Antecedents, and Performance Outcomes. *Journal of Marketing* 66 (4), pp. 86–101.
- [16] Jacob, Frank; Ulaga, Wolfgang (2008): The transition from product to service in business markets: An agenda for academic inquiry. *Industrial Marketing Management* 37 (3), pp. 247–253.
- [17] John, Bettina (2013): Neue GVO bringt Autohandel unter Druck. *automobilwoche*, 28.05.2013, available on <http://www.automobilwoche.de/article/20130528/NACHRICHTEN/130529938/neue-gvo-bringt-autohandel-unter-druck>.
- [18] Kessler, Tim; Stephan, Michael (2013): Service transition in the automotive industry. *International Journal of Automotive Technology and Management* 13 (3), p. 237 - 256.
- [19] Kiefer, Heinz W. (2001): *Finanzdienstleistungen im Automobilhandel*. In Diez, Willi; Brachar, Hannes (2001): *Grundlagen der Automobilwirtschaft*. 3rd ed. Ottobrunn, Germany, Auto Business Verlag.
- [20] Kleimann, Philipp; Posdorf, Dorit; Brenner, Alexander; Beyer, Swen; Keine, Ralf; Hunstock, Torsten (2013): *Masskonfektion im Aftersales*. Study. Roland Berger Group.

- [21] Kowalkowski, Christian; Witell, Lars; Gustafsson, Anders (2013): Any way goes: Identifying value constellations for service infusion in SMEs. *Industrial Marketing Management* 42 (1), pp. 18–30.
- [22] Kunz, Werner H.; Hogueve, Jens (2011): Toward a deeper understanding of service marketing: The past, the present, and the future. *International Journal of Research in Marketing* 28 (3), pp. 231–247.
- [23] Lademann, Rainer P.; Seidel, Uwe; Petersen, Kai (2001): Customer Preferences for existing and potential Sales and Servicing Alternatives in Automotive Distribution. Study undertaken for the European Commission - Competition Directorate-General. *Report*. Hamburg.
- [24] Patton, Michael Quinn (2002): *Qualitative Research & Evaluation Methods*. 3rd ed. Thousand Oaks, Sage.
- [25] Reinartz, Werner; Ulaga, Wolfgang (2008): How to Sell Services MORE Profitably. *Harvard Business Review* 86 (5), pp. 90–96.
- [26] Stadlmann, Christian; Cardinali, Silvio; Skurczyński, Marcin (2013): The perception of future challenges by German speaking, Polish and Italian automotive dealers. *Proceedings Cross-Cultural Conference 2013* (pp. 147-156). Steyr, Austria: Shaker Verlag.
- [27] Subramoniam, Ramesh; Huisingh, Donald; Chinnam, Ratna Babu (2009): Remanufacturing for the automotive aftermarket-strategic factors: literature review and future research needs. *Journal of Cleaner Production* 17 (13), pp. 1163–1174.
- [28] Ulaga, Wolfgang; Reinartz, Werner J. (2011): Hybrid Offerings: How Manufacturing Firms Combine Goods and Services Successfully. *Journal of Marketing* 75 (6), pp. 5–23.
- [29] Vargo, Stephen L.; Lusch, Robert F. (2008): From goods to service(s): Divergences and convergences of logics. *Industrial Marketing Management* 37 (3), pp. 254–259.
- [30] Zeithaml, Valarie A.; Parasuraman, A.; Berry, Leonard L. (1985): Problems and Strategies in Services Marketing. *Journal of Marketing* 49 (2), pp. 33–46.

Note: Please contact the authors for the full list of references.

**The intangible resources in the relationship between real estate agents and customers.
What is the role of trust?**

Oronzo Trio, oronzo.trio@unisalento.it
University of Salento, Department of Management, Economics, Mathematics and Statistics
Lecce (Italy)

The intangible resources in the relationship between real estate agents and customers. What is the role of trust?

Abstract

The house is a complex product. It implies both a higher financial risk than other products and a lot of time to spend for choosing it

The purchase decisions are mainly made within the family. Each of the family members influences the final decision of the purchasing process better than other external incentives do (i.g. advertising, promotion, construction firms, owners and real estate agents).

This study starts from a previous research concerning the in/outsourcing strategies of selling functions in the field of construction firms which revealed a predominant orientation towards the insourcing of the sale and marketing functions; according to the entrepreneurs, the real estate agencies don't have the skills and the domain expertise that are required for selling such a complex product like the house and they don't deal with the customers in the best way. There is a lack of trust, especially as concerns the opportunistic behavior of agents.

The aim of this research is to establish the strategic role of the trust in the relationship between real estate agents and clients.

In order to understand how trust works in this field and which are its main dimensions, an on-desk analysis is carried out on national and international literature. After having qualified the concept of trust, the theoretical hypotheses have been formulated, and subjected to empirical test through a qualitative research (three focus groups).

1. Literature review

According to the early definitions that comes from psychology literature, trust is a generalized expectancy held by an individual that the word promise, oral or written statement of another individual or group can be relied upon.

Trust is a key factor in the exploration of the marketing relationships. In the literature, it is presented as a risk/cost set against the benefits of interacting (Barber, 1983). We can articulate it in terms of assessment of others' reliability and integrity, reliance and willingness to act in your interest (Morgan and Hunt, 1994; Rotter, 1967; Anderson e Narus, 1990).

Trust is "the variable most universally accepted as a basis of any human interaction or exchange" (Gundlach and Murphy, 1993) and can be seen from different theoretical perspectives: contractual relations theory (Macneil, 1980), interaction theory (Hakanson, 1982), organizational theory (Bradach and Eccles, 1989), psychology (Rushton, 1980), social psychology (Blau, 1964), transaction cost economics (Nooteboom et al., 1997), trust theory (Gambetta, 1988), and in the study of online exchange (Lynch et al., 2001; Stewart, 2003).

Some authors conceptualize the trust as the confidence of the exchange actors in the goodwill of each other. It is a noncalculative reliance in the moral integrity and goodwill of others on whom the exchange actors depend (Ndubisi, 2011).

Trust is also an antecedent to communication. The latter one is the way in which we receive information and insights as to the cost, benefits and risk associated with particular situations and the state of the focal relationship.

A topic point of research concerns the development of trust between vendors and buyers in the distribution channel relationships: from the buyer's perspective, the vendor's reputation and its investment in the relationship are trust boosters. This aspect emerges from some studies where reputation is identified to influence the trustworthiness of the vendor (Ganesan, 1994).

As pointed out by Eriksson and Vaghult (2000) a strong relationship between satisfaction and retention exists. Accordingly, as trust is directly linked to loyalty, its role is fundamental.

Trust is affected by the perceived risk in retail purchase. Previous empirical studies demonstrated that this is a common phenomenon in the retail sector (Diallo, 2012; Grayson et al., 2008; Liljander et al., 2009; Semeijn

et al., 2004) both for macro economic conditions and for institutional factors and the business context. The traditional factors like brand and price level have lost their importance to others factors' advantage, like the quality of service or the behaviour of salespersons. Consumers always hold different attitudes towards different types of retailer. This attitude will have an effect on the retailer quality perceptions, on the resultant choice and on the purchasing behaviour (Ajzen, 1985; Hawes and Lumpkin, 1986; MacKenzie and Lutz, 1989).

Trust is often the output of the consumption experience and of the evaluation on cognitive, affective, goodwill and competence trust.

The *cognitive trust* is based on consumer's confidence on service provider's competence and reliability. It enables him to make a conscious decision. It arises from an accumulated knowledge from observation, reputation of and even personal experience (Eastlick and Lotz, 2011).

The *affective trust*, which refers to a consumer's confidence in a service provider, is emotional in nature and arises from an individual's emotional experiences.

The *goodwill trust* is "the expectation that some others in our social relationship have moral obligations and responsibility to demonstrate a special concern for others' interests above their own" (Barber, 1983; Das e Teng, 2001).

The *competence trust* is based on the extent to which one party believes that its exchange partner has the required professional expertise to perform the job effectively so as to achieve relationship benefits (Twing-Kwong et al., 2013).

All these dimensions occur in the field of outsourcing strategies.

The *in-* and *outsourcing* strategies represent a topic, which is frequently discussed in the field of transactional cost analysis and agency theory (Coase, 1937; Williamson, 1978; Quinn e Hilmer, 1994; Hinterhuber e Stuhec, 1996; Mullin, 1996; Elmuti D. et al., 1998; Baden-Fuller et al., 2000; Ricciardi, 2001; Gregori, 2001; Ventricelli, 2004; Le Bon et al., 2009; Pellicelli, 2009; Pastore e Ricciardi, 2010).

Trust is one of the main factors that you need to consider for explaining both the choice to outsource services previously performed internally and the opposite one.

The degree of trust between the outsourcer and the service provider will determine the strength of the business relationship (Ndubisi, 2011). In this context, trust includes reliance on the promises of the outsourcer or the service provider to the other party

2. The nature of the residential product and the construction supply chain

The house is a complex product. It implies both a higher financial risk than other products and, a lot of time to spend for choosing it. According to some authors, its purchase is often characterized by the customer's inclination to negotiate with the internal selling force of the construction firm (Jackson et al., 1999; Bitner, 1990).

The house has evolved from a simple structure to an economic product. On the first hand this transformation is the consequence of the evolution of construction techniques and, on the other hand, of the architectural choices.

It combines various aspects, from the materialistic one up to the emotional one. Certainly, its complexity (Tidd et al., 1999) has expanded with the appearance of new needs, such as energy saving (*zero energy homes*), sound insulation, and new life styles (Abis, 2009; Finizio, 2011).

However, the house is not just what is mentioned above. It is a product (an output of a process of production), which combines building materials, capital, work, entrepreneurship and localization. It is a basket of attributes and a set of functional, financial, social and symbolic utilities (Levitt, 1980; Lambin, 2008).

In fact, considering the various aspects above mentioned, one becomes easily aware of the complexity of the purchasing process, and, consequently, the great difficulties firms have in facing the customer, especially if the negotiation is based on a design (Gameson, 1991; Loe, 2000).

In order to have a good knowledge of the customer, one needs to know more about his world-vision, the way he makes his decision, and how he behaves in the personal environment. Though both, the customer and the enterprise observe the same thing, they however see different things; they use the same words, providing them with

different meanings; when the customer examines a building design, he often ignores construction details and concentrates his main attention on other aspects that reflect on his personality or his life style, his needs and those of his family.

The purchase decisions are mainly made within the family. Each of the family members influences the final decision on the purchasing process in a stronger way than other external incentives do (i.g. advertising, promotion, construction firms, owners and real estate agents) (Brassington e Pettitt, 2000).

In fact, a family enables face-to-face interactions, reduces the perception of risk and activates a joined decisional process. (Brown and Reingen, 1987; Engel et al., 1995; Antonides and Van Raaij, 1988; Wagner et al., 1984).

The construction supply chain is long, complex and well structured. It combines interconnected sectors that correspond to different productive fields and market segments.

There are two principal industries: construction in the strict sense and real estate. The former includes all the firms that work in the following fields: construction, refurbishment, demolition and maintenance of building structures and infrastructures, production of hydroelectric plants, communication systems, multi-sport facilities, extraction of underwater rocks, big structures.

The latter includes the rent of buildings, selling, management and valuation of real estates, rent and leasing of construction equipment, technical and architectural services.

The main actors are:

- *Owners-users*: they manage buildings for their own business;
- *Owners-investors*: the management of buildings is their core-business, they pursue financial objectives;
- Asset management service provider, that support owners in the financial management of the property;
- Real estate services providers that deal with the selling of the buildings (agencies);
- Builder;
- Design services and *general contractor* who provide engineering services, construction services management in the building site also;
- Property and facility management services provider (Politecnico di Milano, 2009).

The construction firms are situated in the field of “project firms”, namely those representing (i) uniqueness of the product (ii) intermittence of the production process (iii) transience of organization (iv) non recurring nature of the commercial transactions (v) flexible structures of the firms (Genco, 2006).

It doesn't offer just a product but a complete solution to a specific demand. In reference to this the complementary relation among systems that integrate physical elements concerning the product and intangible elements concerning the service, is essential.

Real estate agents are the connecting element between the firm and the market. They fill the lack of information especially in regards to the residential market (Milgrom P. e Roberts J., 1994; Grandori A., 1999; Boyd D. e Chinyio E., 2006). In fact, they represent a specific type of intermediaries, because their originality is based on the nature of the product they are selling.

The real estate agent, after having received the mandate from a client, operates in his own interest to select people, firms or organizations that are interested in a commercial transaction such as buying, selling or renting a building.

This means, that they can be considered a kind of distributors of “building solutions”. Their competitiveness depends on the wideness of the assortment, namely the number and the variety of the solutions that are proposed to the customers.

Their role is essentially that of a commercial intermediary: (i) **contact** with the customers, namely with all the people interested in buying or selling the property of the building; (ii) **information**, transferring to the counterpart a flow of technical, financial, and economic data and information that are useful for both, the decisional process and, for ensuring the correct balance among the characteristics of the products and the needs of satisfaction; (iii) **fractionation** of the construction firm's production in many parcels, each of which meets the needs of a specific segment or niche; (iv) **promotion** through an heterogeneous set of tools (signs, brochures, websites etc).

In the end, they assume an essential role for all the legal and administrative activities (drafting of the contract, payments, assistance during the notary phase etc).

The relationship between the customer and the construction firm is essential for both of them. The choice of the house represents a highly delicate moment, because as a matter of fact, it is very difficult to find the one that meets all the needs of the customer.

The intervention of the real estate agent influences the customer's choice, either in a negative or in a positive way, directing the interest towards specific residential solutions.

For instance, the agent can assume an opportunistic behavior in order to influence the price; furthermore the agent can appeal on psychological and emotional variables of the customer, which can be in contrast with the principal's interest.

For this reason, the construction firm has to manage correctly the relationship among the sales forces and, at the same time it has to have the average control on them.

3. In - or outsourcing? The role of the trust in the construction industry

In a previous research we highlighted the company's policies about the distribution channels and, specifically, the alternative options between direct and indirect channel in the construction industry.

That paper aimed at understand and analyses the determinants of the in/outsourcing processes in the construction sector and, especially, in the residential market.

At this end, a qualitative research on a sample of small firms had been carried out through 15 interviews.

The main objectives of research was: 1) studying the relationships between construction firms and real estate agents; 2) analysing the main factors which push the first ones to manage directly the sales of their products or to, otherwise, externalise that function.

The results demonstrate that there is an evident preference towards the first option. The enterprises, in 13 cases out of 15, prefer carrying out directly the selling functions and the eventual involvement of the agencies, without an exclusive mandate through human specialized resources, which coincides sometimes with the same entrepreneur.

This orientation is motivated by the distrust towards the agents and their abilities.

In fact, they say:

"The real estate agents have few knowledge about how buildings and facilities are made up...because...they don't read up, they don't have the humility to learn, to ask us, to make any check on site in order to understand".

In the entrepreneurs' opinion, the agents make a particular mistake, namely considering the building product as a commodity, which sets up the shop window such as the one of a supermarket. For them, a house purchase is identical to any other purchase and is not considered "a project of life".

"The agents aren't really interested to know their customer's preferences and needs in order to build a specific project for them."

The entrepreneur has generally prejudices towards the effective contribute of the agent. According to the entrepreneur's view, the agent doesn't really transmit all the necessary information to the customer and, furthermore, he isn't able to make the customer feel at ease.

In addition to that, the agent just introduces the customer to the entrepreneur, so that the customer has all the necessary information about the building. Nevertheless the customer prefers often to meet the manager personally and talk to him rather than to the agent.

Many interviewees have confirmed this aspect and motivated it with the propensity of the buyers for saving the agent's commission and, for the opportunity to have a better explanation of all the details of construction.

Another interviewed person has argued that a relevant problem for him is to find an agent "*willing to run a risk*", namely a partner to whom commit an exclusive mandate for carrying out a selling plan, with a true guarantee for selling a certain number of houses: "*when we make this proposal, the agents often refuse and don't want to take charge of this kind of mandate*".

The non-balance between the two parts is too evident and it wouldn't be reasonable to ignore it.

The propensity of the construction firms depends on a direct management of the commercial function; the recourse of an intermediary could be justified just when it is possible to take in advantage inflexibilities of the agent about fixed prices.

“Once the agent fixes the price for the customer, he can't change it, he is rigid and can't change the conditions; on the contrary we are more flexible than he is, because the customer turns directly to us.”

There are other reasons that explain insourcing in the construction firms. Thanks to the interview, the following evaluations of the builders have emerged, concerning in particular:

- a) Brand-awareness in the local market;
- b) Direct relationship to the final customer.

In reference to the former aspect, the main part of the answers demonstrate the importance of the enterprise's brand, as an asset whose strength is the notoriety in the local market, which is in turn based on trust:

“My enterprise is well known on the local market thanks to the previous generations that were able to connect our brand to quality. Our customers choose us for this reason.”

The client's preferences are based on the firm's notoriety, which depends in turn on previous experiences of acquaintances and friends. In this context, word-of-mouth is essential to create awareness. It makes the traditional communication tools (advertising, promotion etc), less important:

“We have never done a lot of advertising, we did it sporadically. Advertising is not very important for a small firm such as ours, which for its dimensions is able to differentiate itself through word-of-mouth marketing. This one strengthens the relationship among the enterprise and our potential client”.

The potential client feels not attracted *“by marketing but by knowing the internal personnel. People come to us because they put their trust in us, they rely on us and they know us directly. The contact is then essential”.*

The customer also appreciates *“the continuous, constant and meticulous care of the works”*, that is to say, the presence of managers on the building site where they start working with the workers since the early morning. The assistance is one of the most important points of strength, which makes the brand stronger. Usually, the firm's owner who gives advices and suggestions supervises the various steps, from the early contact until the sign of the contract. This approach is highly appreciated by the client.

This constant contact is a source of competitive advantage. *“It makes the difference to a more articulated enterprise, where a commercial department and a technical department exist”*; word-of-mouth is also based on these factors in order to attract more and more clients”.

The respondents consider the personal assistance of the client as a real driver for the competitiveness, and so an effective source of competitive advantage compared to other enterprises that instead *“delegate many functions to the technical staff and don't check the quality of buildings; nevertheless the technical staff does never have the necessary skills and, furthermore their interest can be different to the owner's one”.*

4. The purchaser's preferences between construction firms and estate agents.

In order to understand if the construction firms' approach is motivated, a deeper analysis was carried out. It involved three distinct focus groups of the demand side, made up of people from 20 to 50 years old

The first goal is to identify the drive factors of the choices and the sources of value emerging from the relationship.

The general approach prefers the direct relationship with the construction firm. The latter is perceived as more reliable since it has already turned out its own competences and know-how in the construction activities.

I think builder pays more attention to my needs. He builds my home as I want it, the estate agents don't.

I surely choose the construction firm. I don't trust the agent because he acts just in his own interest to selling what he got. In my opinion he tries to influence me according his interests. I want to be free.

If you turn to a builder, you can buy what he's building. You can see it. You can verify it on site. You can examine the design.

I want to feel the house as my home. The agent does not give you this opportunity. If you turn to him, you must accept what he proposes you and you have no alternatives.

I would avoid the agent a priori. I can't trust him. I'm scared of unpleasant surprises. I am so suspicious

This is the prevalent approach when the customer has to choose between the construction firm and the estate agent. “Investing” in trust is affected by some important cautions. Firstly we refer to the need to get information from

parents and friends who have already had previous experiences with builders. They enable to be informed about the quality of constructions, the reliability, the know-how, the fairness. Secondly we refer to the need of consultants who support customer to fill the gap of knowledge on the characteristics of building.

Between the two solutions, I would prefer the builder even though I need some references, I would like to know what he built. I would need some advices and opinions from trusted persons. I prefer to assist to the construction activities.

I would turn to an already known builder but I would ask to a trusted engineering to support me.

I prefer an already known builder. He can provide me all the information I need. I feel safe. However I would get help from a trusted person.

I feel safer turning to a construction firm because I have the perception it runs the risk to damage his name for itself. On the contrary the agent runs less risk.

In my opinion the builder sell his product, he is more involved than an agent. He is more responsible. He takes the passion for the building he produces. He feels the importance of his work. For these reasons I prefer the construction firm.

Many participants consider their participation to the design phase as very important and as affecting the final choice. Home is a project of life for them. It's a special product that has to represent their own personality. They want to take part while the characteristics of homes are to be decided:

I wouldn't buy an house which is already built. I prefer providing a design draft, to a trusted engineering who transmits it to a trusted builder for building it. A trusted builder is a person, or an enterprise, that I know as consequence of previous constructions. I would choose it for these factors, not for advertising. It doesn't matter. What is matter is word-of-mouth.

Even if the dimension of the product of the agent could affect positively, the opinion of the majority doesn't change; to them it is highly essential to take part actively of the selection of material and in general in the choice of the characteristics of the building:

The builder's and my vision enable me to get what I want. The agent doesn't. I don't think the agent provides me a wider set of options. If a builder is skilful, if he's able to get my ideas then I have got a wider range of houses compared to the agent.

Despite of these prevalent opinions, other participants consider the agent's role essential. According to them, the alternative options are not so evident since there is a geographic factor which affects the choice.

Then we have asked, if the option of agent has to be dismissed:

Not quite! If I lived in another city I would rely myself to the agents, especially to the bigger one that have to maintain their reputation. I think they make a selection of the most reliable firms, they distinguish the houses according to the different energy saving requisites etc. They provide some services that a single person aren't able to get hold oneself.

It depends on the specific case.

If you have to buy a foothold in a city far, I would rely myself to an agent because I think he provides me a wider range. Though I'm aware that agents won't tell me the truth, I prefer them because I could have more options.

The situation is different if I had to buy an house in my geographic area. For sure I would choose a builder after having decided how the design should be.

The wide portfolio products is the main reason that guide a small group of respondents toward the agencies:

I have look carefully at the house I want to buy. Even though the agent tried to get me to buy what is more convenient for him, at the end the only one who chooses is me.

Therefore I think that the agent shows you the final product, the builder doesn't. The latter one provides a concept, an idea of the house which could be different to what I imagined once it is finished. I want to see the house once it finished!

I'd turn to an agent so we can analyze together the various option that are available. I want to see the finished house insides to get if I likes it.

For some people it isn't of great difference rather to have a builder or an agent.

The fact that there was an uncertainty regarding a good solution, was due to the specific period in which the research took place; because of a very deep crisis that has affected the real estate market, many failures were caused. So a great fear in the purchasers has emerged:

I thought that I would be safer to rely on a construction enterprise and that this was ever the most convenient option. But in this period ever the guarantees aren't useful. Large companies have gone bankrupt when they seemed they were in their best period.

I'm scared. How could I sign a contract for an house that will be built many months later? I don't want to run the risk. So, I prefer the estate agent even though there are not real advantages. The only one is that the building is there.

I'm sure: if I had to buy an house, I would turn to a builder and I should ask for a finished house. Then I would turn to an agent to evaluate together with him other solutions. The word "trust" in the field of the relationships with the agencies is meaningless. We don't have to use the word "trust" but "risk". The question is: who could take on the risk for the potential damages? Who is the actor who makes me run less risks? The choice depends on the answer.

Finally, according to someone there's no question of it because they prefer avoiding every channel (agent or builder) and having a direct relationship with the owner buying a "second hand" house from him:

I prefer not either one.

The agent does not inspire me confidence. I feel he wants to sell me something I don't need. And the builder too.

I prefer an house to be restored like I want . Why do I have build something new? In my opinion turning to an architect who says "there is this nice house, do you want to see it together?" is better. Then, if I liked it, I would try to adapt it to my needs.

5. Conclusions.

This research reveals that trust influences the choices of the builders and of the customers in the estate markets.

Firstly, the entrepreneurs mistrust the estate agents. In their opinions they are not reliable and unwilling to a collaborative relationship.

For this reason the builders prefer to directly manage the relationship with the customers.

Secondly, the perceptions of builders about the opportunism of agents and their lack of attention for the customer's need is confirmed. The purchasers, indeed, also show an high mistrust .

They think that the agent is inspired just by his own self-interest for trying to sell what is more convenient for him, and not for his client. Then, there is a lack of trust.

On the contrary, according to the participants at the focus groups, the builders pay more attention to the customer's needs and get them involved in the choices concerning the building. Therefore, they prefer to rely on well-known builders, on trusted engineers, friends and relatives.

The research has some interesting managerial implications for estate agents. Knowing the perception of them by clients and builders, is an important input for adopting new relationship models.

The distance between them and their potential clients and the mistrust from builders are some great limits. If the agents will be aware of it, they will be able to improve their image and their performances.

References

- [1] ABIS M. (2009): "La casa degli italiani in tempi di crisi". *Micro e Macro Marketing* vol. n. 2, Il Mulino, Bologna.
- [2] AJZEN J. (1985), "From intentions to actions: a theory of planned behaviour", in Kuhl J. and Beckmann J. (eds), *Action control: From Cognition to Behaviour*, Spinger, New York, NY, pp. 11-39.
- [3] ANDERSON J.C. and NARUS J.A. (1990), "A model of distributor firm and manufacturer firm working partnerships", *Journal of Marketing*, Vol. 54 No. 1, pp. 42-58.
- [4] ANTONIDES G., VAN RAAIJ W.F. (1988): *Consumer Behavior: a European perspective*, John Wiley & Sons, New York, NY.
- [5] BADEN-FULLER C., TARGETT D., HUNT B. (2000): "Outsourcing to Outmanoeuvre: Outsourcing redefines competitive strategy and structure". *European Management Journal*, 18 (3), pp. 285-295
- [6] BARBER B. (1983), *The Logic and the Limit of Trust*, Rutgers University Press, New Brunswick, NJ.
- [7] BITNER M. J. (1990): "Evaluating service encounters: the effects of physical surroundings and employee responses". *Journal of Marketing*, 54, 69-82
- [8] BLAU P.M. (1964), *Exchange and Power in Social Life*. Wiley, New York.
- [9] BOYD D., CHINYIO E (2006): *Understanding the construction client*, Blackwell Publishing, Oxford.
- [10] BRADACH J., ECCLES R.J., (1989), "Price, Authority, Trust: From Ideal Types to Plurals Forms". *Annual Review of Sociology*, 15, 97-118.
- [11] BRASSINGTON F., PETTIT S. (2000), *Principles of Marketing. 2nd edition*, Financial Times, Prentice-Hall, Upple Saddle River, NY.
- [12] BROWN J.J., REINGEN P.H. (1987): "Social ties and word-of-mouth referral behavior". *Journal of Consumer Research*, Vol. 14, December, pp. 350-62
- [13] COASE R.H. (1937), *The nature of the firm*. *Economica*, vol. 4.
- [14] DAS T.K., TENG B.S. (2001), "A risk perception model of alliance structuring", *Journal of International Management*, Vol. 71, pp. 1-29.
- [15] DIALLO M.F. (2012), "Effects of store image and store brand price-image on store purchase intention: application to an emerging market", *Journal of Retailing & Distribution Management*, Vol. 19, No. 3, pp. 360-7.
- [16] EASTLICK M.A. and LOTZ S. (2011), "Cognitive and institutional predictors of initial trust toward an online retailer", *International Journal of Retailing & Distribution Management*, Vol. 39, No. 4, pp. 235-55.
- [17] ELMUTI D., KATHAWALA Y., MONIPPALLIL M. (1998): "Outsourcing to Gain a Competitive Advantage". *Industrial Management*, May/June; 40,3.
- [18] ENGEL J.F., BLACKWELL R.D., MINIARD P. W. (1995): *Consumer behavior*, 8th ed., The Dryden Press, Hinsdale, IL.
- [19] ERIKSSON K. & VAGHULT A.L. (2000), "Customer retention, purchasing behaviour and relationship substance in professional service". *Industrial Marketing Management*, 29, 363-372.
- [20] FINIZIO M. (2011): "La casa cablata si vende in fretta". *Casa 24 Plus dell'1 dicembre 2011*.
- [21] GAMBETTA D. (1988), in Gambetta D. (ed), *Trust: Making and Breaking Cooperative Relations*, Basil Blackwell, Oxford.
- [22] GAMESON R.N.: *Clients and professionals: the interface. Practice Management: New perspective for the construction professional*. Spon, London, 1991.
- [23] GANESAN S. (1994), "Determinants of long-term orientation in buyer-seller relationships", *Journal of Marketing*, Vol. 63, No. 2, pp. 1-19.
- [24] GENCO P. (2006), "La dematerializzazione del territorio e dell'impresa: l'impresa progetto". *Sinergie*, vol. n. 70.
- [25] GRANDORI A.(1999), *Organizzazione e comportamento economico*, Il Mulino, Bologna.

- [26] GRAYSON K., JOHNSON D. and CHEN D.F.R. (2008), "Is firm trust essential in a trusted environment? How trust in the business context influences customers", *Journal of Marketing Research*, Vol. 45, No. 2, pp. 241-256.
- [27] GUNDLACH G.T. & ACHROL R.S. (1993), "Governance in exchange: Contract law and its alternatives". *Journal of Public Policy and Marketing*, 12(2), 141-155.
- [28] HAKANSOON H. (1982), *International Marketing and Purchasing of Industrial Goods*. New York, Wiley.
- [29] HAWES J.M., & LUMPKIN J.R., (1986), "Perceived risk and selection of a patronage mode". *Journal of the Academy of Marketing Science*, Vol. 14, No. 4, pp. 37-42.
- [30] JACKSON D. W., WIDMIER S., GIACOBBE R., KEITH J. (1999): "Examining the use of team selling by manufacturers' representatives: A situational approach". *Industrial Marketing Management*, 28(2), 155-164.
- [31] LAMBIN J.J. (2008), *Marketing-driven management. Marketing strategico ed operative*. McGraw-Hill, Milano
- [32] LEVITT T. (1980): "Marketing Success through Differentiation of Anything". *Harvard Business Review*, vol. 58.
- [33] LILJANDER V., POLSA P. & VAN RIEL A. (2009), "Modeling consumer responses to an apparel store brand: store image as a risk reducer", *Journal of Retailing and Customer Services*, Vol. 16, No. 4, pp. 281-90.
- [34] LOE E. (2000): *The value of architecture: context and current thinking*. London, Royal Institute of British Architects Future Studies.
- [35] LYNCH P.K.R. & SRINIVASAN S.S. (2001), "The global internet shopper: Evidence from shopping tasks in twelve countries", *Journal of Advertising Research*, 41(3), 15-23
- [36] MACKENZIE S.B. & LUTZ R.L. (1989), "An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context". *Journal of Marketing*, Vol. 53, No. 1, pp. 48-65.
- [37] MACNEIL I.R. (1980), *The new social contract. An enquiry into modern contractual relations*. New Haven, CT: Yale University Press.
- [38] MILGROM P., ROBERTS J. (1994): *Economia, Organizzazione e Management*, Il Mulino, Bologna.
- [39] MORGAN R.M. & HUNT S.D. (1994), "The commitment-trust theory of relationship marketing". *Journal of Marketing*, 58, 20-38.
- [40] MULLIN R., (1996): "Outsourcing: Managing th Outsourced Enterprise". *Journal of Business Strategy*, 17 (4), pp. 28-36.
- [41] NDUBISI N.O. (2011), "Conflict handling, trust and commitment in outsourcing relationship: A Chinese and Indian study". *Industrial Marketing Management*, 40, pp. 109-117.
- [42] NOOTEBOOM B., BERGER H., & NOORDERHAVEN N.G. (1997), "Effects of trust and governance on relational risk", *Academy of Management Journal* , Vol. 40, No. 2, pp. 308-38.
- [43] PASTORE P., RICCIARDI A. (2010), *Outsourcing strategico. Tecniche di gestione, criticità, vantaggi competitivi*. Franco Angeli, Milano.
- [44] PELLICELLI M. (2009), *L'outsourcing e l'offshoring nell'economia dell'impresa*. Giappichelli, Torino.
- [45] POLITECNICO DI MILANO (2009), *L'Ict nel Real Estate: un potenziale innovativo non ancora sfruttato*".
- [46] QUINN J.B., HILMER F.G. (1994), "Strategic outsourcing". *Sloan Management Review*, 35 (4), pp. 43-55
- [47] RICCIARDI A. (2001), *L'outsourcing strategico. Modalità operative, tecniche di controllo ed effetti sugli equilibri di gestione*. Franco Angeli, Milano.
- [48] ROTTER J.B. (1967), "A new scale for the measurement of interpersonal trust". *Journal of Personality*, Vol. 35, No. 4, pp. 651-65.
- [49] RUSHTON J.P. (1980), *Altruism Socialisation and Society*. New York, Prentice-Hall.
- [50] SEMEIJIN J., VAN RIEL A.C.R. & AMBROSINI A.B. (2004), "Consumer evaluation of store brands: effect of store image and product attributes". *Journal of Retailing and Consumer Services*, Vol. 11, No. 4, pp. 247-58.
- [51] STEWART K.J., (2003), "Trust transfer on the World Wide Web". *Organization Science*, 14 (1), 5-17.
- [52] TIDD J., BESSANT J., PAVITT K. (1999), *Management dell'innovazione*. Guerini e Associati, Milano.
- [53] TWING-KWONG S., ALBAUM L.G. & FULLGRABE L. (2013), "Trust in customer-salesperson relationship in China's retail sector". *International Journal of Retail & Distribution Management*, Vol. 41, No. 3, pp. 226-248.
- [54] VENTRICELLI G. (2004), *Outsourcing. Conviene davvero esternalizzare?* Etas, Milano.

- [55] WAGNER W., KIRCHLER E., BRANDASATTER H. (1984): “Marital relationships and purchasing decisions – to buy or not to buy? That is the question”. *Journal of Economic Psychology*, vol. 5, pp. 139-57.
- [56] WILLIAMSON O. (1978), *Markets and Hierarchies*, The Free Press, New York.

Marketing of Intangibles

Global sourcing and back-shoring: towards a possible shift of sourcing strategies?

Fabrizio Baldassarre, fabrizio.baldassarre@uniba.it

Raffaele Campo, raffaele.campo@uniba.it

University of Bari Aldo Moro, Italy

Global sourcing and back-shoring: towards a possible shift of sourcing strategies?

Abstract

Companies are paying more and more attention to volatility in the supply chain and many manufacturers are reassessing their global sourcing strategies. Will multinationals retreat to a hemispheric, near-shoring model or opt for a hybrid that maintains an international component? This paper investigates the current challenges for Chief Procurement Officers facing risks and evaluating total costs along the global supply chain. The authors have reviewed both practitioner's and academic literature, exploring the main trends in the global approach to supply markets and the trade-offs that could affect strategic sourcing decision in the near future.

1. Introduction

The phenomenon of global sourcing is often analyzed jointly to the globalization of production and sales. Companies, in fact, seem to follow a process of gradual globalization of all their functions in search of new competitive advantages. Firms shall adopt, in fact, different configurations of global sourcing and global distribution (defined as the sale and distribution of products outside the country). The data analysis of the International Manufacturing Strategy Survey (2009) shows how there is a majority of companies (65%) which operates predominantly locally and a small portion (6%) of companies strongly globalized. The latter are also companies with globalized production networks. The remaining companies are divided into those that either have a high level of global sourcing (10%) or global distribution (19%). Of course, companies can over time change their strategy of purchasing management. The well known Swedish furniture retailer IKEA, for example, was initially focused on supply management at the local level: business development (through entry into new markets and diversifying into new products) led to change sourcing strategies as well as those corporate summarized in offering quality products at an affordable price. In particular, the company due to problems of capacity and relationship with its suppliers, which were proving less and less cooperative in lowering prices as requested by their client, started researching suppliers first in Europe, starting from East, then in China and the Far East and, finally, in the United States. The search for vendors in this region has followed the local opening of new stores (Hultman, Johnsen, Johnsen, & Hertz, 2012).

A further aspect concerns the fact that global sourcing is not a trend followed uniformly by all businesses. Especially in recent years, even facing the acceleration of certain processes due to the crisis, there has been a slowdown in some areas of internationalization processes, up to the reversal of this trend. Often we refer with the term 'back-sourcing' (or outsourcing back-shoring) to the phenomenon that some companies 'abandon' the foreign supply markets to return to a more local supply base (Tunisini, Bocconcelli, & Pagano, 2011). The reasons that can lead to this phenomenon are different, even though it may in fact be summed up in a loss of affordability of overseas supplies or in the difficulty of management of foreign investment.

The practice of global sourcing can be implemented in very different ways. First, we can distinguish between the situation where a company decides to outsource an entire production activities abroad and one in which the company buys one or more products or services from a foreign supplier. In the first case scholars and practitioners usually speaks of offshoring. There are many cases in recent years of companies that have resorted to this type of investment. Consider, for example, FIAT, Renault, or other car manufacturers, who have relocated part of their production in Eastern Europe countries through investments in production facilities in these areas (sometimes retaining sole ownership, other times in forms of joint-venture).

The World Investment Report (UNCTAD, 2013), which studies the flows of productive investments among countries, reports a growing trend in recent years, although there is a strong correlation with economic cycles that can sometimes lead to trend reversals. In the international scenario, Europe is the continent that sees more incoming and outgoing flows.

In case of direct purchase from foreign suppliers, we talk about *global sourcing* in the narrow sense to refer to the supply of raw materials or components, or of *global outsourcing*, in case of purchasing of production capacity.

Of course, the line between these two areas is not fully demarcated and thus we treat them jointly.

While the phenomenon of back-reshoring of operations is being studied scholarly and a relevant data-base has been created and used for research (Fratocchi, Di Mauro, Barbieri, Nassimbeni, & Zanoni, 2014; Tate, Ellram, Schoenherr, & Petersen, 2014), there is still a lack of academic research, particularly in Italy, about the (eventual) decision of relocation of global sourcing activities and its antecedents.

Thus the paper is concerned with assessing whether and how the “global” dimension of sourcing is still a feasible and effective path for leading companies. Specifically, this paper debates the following three research questions: 1) under which conditions and with which degree of awareness of risks and costs have industrial companies relied on global suppliers? 2) Considering that cost saving is still the main reason for the scouting of foreign suppliers especially in low-cost(wage) countries, what kind of management tools (if any) are actually used to effectively measure and monitor the total cost of global supplies in order to evaluate the real convenience of global sourcing? 3) Is the return to domestic supply base or nearshore sourcing an option considered for the future?

The research methodology is qualitative and based on a focus-group organized in May 2014 with the Chief Procurement Officers of seven leading Italian manufacturing companies which operates globally, some with production and sourcing activities, some only with sourcing activities. A preliminary and exploratory part of the results of this focus group will be summarized in this paper after the presentation of the theoretical background.

2. Theoretical background: a literature review

2.1 Globalizing operations and supplies: is the pendulum swinging back?

For more than twenty years, deciding where to build a manufacturing plant to supply the world or where to find global suppliers to source from was quite “simple” for many companies (BCG, 2011). Unsurprisingly, the underlying principles of Adam Smith’s book ‘An Inquiry into the Nature and Causes of the Wealth of Nations’ (1776) provided a simple, yet convincing explanation for why economies as a whole, and individual companies in specific, should engage in international trade: arguments have subsequently found their way into the Operations and Procurement Management domain, where they have been applied to three streams in the literature, representing some of the most fundamental decisions that purchasing and production managers face (Holweg, Reichhart & Hong, 2011). The first decision relates to the value adding tasks to be performed by a firm, known as the so-called ‘make-or-buy’ decision (Higgins, 1955; Venkatesan, 1992) or under the term ‘outsourcing’ (Quinn & Hilmer, 1994). Secondly, once decided what to keep in-sourced, managers need to decide where to locate the operations to perform these tasks (Skinner, 1964; Ferdows, 1997). Thirdly, managers need to decide where to source the required parts and/or services that are not produced in-house (Choi & Hartley, 1996; Nassimbeni, 2006).

In this period manufacturers have viewed offshoring as a necessity—one virtually mandated by the price demands of customers and by the cost advantages of competitors that had already aggressively off-shored. Most larger companies today engage in global sourcing in some form and to some extent (Horn, Schiele, & Werner, 2013). The rationale for offshoring (either for in-sourced products or out-sourced supplies) was, in fact, a rather straightforward economic one. Suppliers in low cost countries (LCC) such as China have been able to offer “perceived” prices 25 to 40 percent lower than those available on shore—the typical threshold or tipping point for moving off shore. These reduced prices were made possible by low labor costs, cheap commodities, and favorable exchange rates (Ferreira & Prokopets, 2009).

Global companies (MNCs) adopt dynamic strategies towards the global configuration of their activities and, for this reason, divestment and new investments go hand in hand (UNCTAD, 2013). This type of companies govern a complex internal system of interlocking value added activities positioned across countries. This system evolves continuously, with expansion in one sector or territory sometimes accompanied by contraction in another. The composition and organization of value added activities by a MNC change continuously to respond to exogenous environmental, technological and social factors, as well as new endogenous strategic priorities. The key forms of strategic positioning are defined in the table 1.

TABLE 1: TERMS AND DEFINITIONS FOR GLOBAL STRATEGIC POSITIONING

Offshoring is the process of transferring part or all of the value added activities conducted by a company from the home country to another. When it engages in offshoring, the firm maintains ownership over activities conducted overseas. This differs from offshore outsourcing, which involves purchasing products or services from another firm located overseas (UNCTAD, 2013)
Relocation is the movement of existing assets, resources and people from one location to another. It can be linked to divestment. Companies may decide to relocate all or part of value added activities in response to new environmental conditions or to reflect new strategies adopted by the firm. Relocation can take place within a host country, across borders to a new host country or back to the home country of the company (UNCTAD, 2013)
Reshoring is the process through which a MNC relocates all or part of value added activities conducted abroad back to the home country of the company (UNCTAD, 2013)
Nearshoring is the process of positioning all or part of the value added activities in a country that is geographically, economically and culturally close to the country of origin of the company
Back-sourcing is the “production return relocation from an [...] external entity” (Holz, 2009, 156) for (Out-sourced) manufacturing activity abroad (partial vs. total)
Back-shoring is the “Re-concentration of parts of production from own foreign locations as well as from foreign suppliers to the domestic production site of the company” (Kinkel and Maloca, 2009, 155) “The geographic relocation of a functional, value creating operation from a location abroad back to the domestic country of the company” (Holz, 2009, 156; Fratocchi, Di Mauro, Barbieri, Nassimbeni, & Zandoni, 2014)

Now, however, a combination of economic forces is fast eroding China’s and other LCC’s cost advantage both as an export platform for the North American and European markets and as a low-cost supply source. Meanwhile, Germany, France, Italy, UK and, mostly, the U.S., with an increasingly flexible workforce and a resilient corporate sector, is becoming more attractive as a place to manufacture many goods consumed on this continent. Indeed, many manufacturing and procurement executives now recognize that quality problems, longer supply chains, lack of visibility, piracy and intellectual capital theft, are also part of the off-shoring operation, meaning that not all of the 25 to 40 percent off-shore sourcing savings goes to their bottom line. Moreover, working capital is increasingly tied up in inventory trapped on slow-steaming ocean transit and in safety stock held at distribution centers. Innovation also suffers from the physical, and sometimes cultural, distance between manufacturing and design operations. “Over time, the balance of labor shifted and the unemployment rate in the wealthier countries soared to new levels” (Tate, Ellram, Schoenherr, & Petersen, 2014, 382; see table 2).

TABLE 2: FACTORS THAT GENERATE THE NEED TO CONSIDER MANUFACTURING LOCATION AND ADVANTAGE OF NEARSHORING OR RESHORING

Factor indicating need to reconsider location	Potential advantage of nearshoring or reshoring
Strong domestic customer base is being served by offshore manufacturing	Reduced inventory and transport costs, especially with the lowest global fuel costs in North America
Very sensitive IP	Domestic and nearshore locations offer greater protection and enforcement. Easier to monitor closer locations
Increasing shortages and price increases of local, routinely needed services, like transportation, warehousing, and labor as indicated by factor market rivalry. Generally increasing price levels significantly faster than global averages.	More predictable pricing and availability
Repeated environmental and/or human rights violations	Greater visibility, commonality, and enforcement of sustainability laws
Regional financial instability in manufacturing location	Locating in the same region as customer may create a more balanced financial flow, stability in currency exchange
Labor costs are a decreasing factor in manufacturing due to automation, or could be due to potential automation	Since cheap labor is generally a major advantage of low cost countries, it might be worth reanalyzing the situation

The reversal of off-shored decisions is not a new phenomenon and it has been documented since the eighties (Mouhoud, 2007), but cases of repatriation of production are being increasingly reported in the economic press (The Economist, 2013) and in consulting firms' reports (Accenture, 2011; BCG, 2011, 2013).

In last few years several manufacturing companies have, in fact, announced the return of part of their off-shored production (either captive or out-sourced) to their home countries. Industrial giants such as Caterpillar, Bosch, and Philips are featured among them, but also a plethora of small- and medium-sized enterprises that are reconsidering their international location and/or sourcing strategy. Yet, the return back to the home country (back in-shoring) or the relocation of supply sources in countries closer to headquarters (near-reshoring) is not always connected only to the decision of backshoring manufacturing operations. Fratocchi, Di Mauro, Barbieri, Nassimbeni and Zaroni (2014, 57) have created a few years ago a research group (Uni-Club MoRe Back-shoring) that has built a data base on back-shoring based on secondary data gathered from a variety of sources. The data base consists of 294 back-reshoring operations, among which US and European companies are almost equally represented. The countries most present in the sample (USA, Germany, and Italy) are also highly focused on global manufacturing activities. Differently from the German and European survey results, almost 70% of cases concern returns from China and other Asian countries, while Eastern Europe accounts for around one tenth. However, this evidence is largely differentiated between US and European companies, confirming the stronger region-centric approach of the latter ones in term of off-shoring strategies (Daudin, Riffart, & Schweisguth, 2011). Further, breakdown by industry shows that back-shoring activities were implemented in almost all manufacturing industries, without any relevant difference among labor and capital intensive ones. Time based analysis reveals that the phenomenon is not recent – especially for European firms – and that repatriations from China are significantly swifter than from other countries, with about 25% of firms returning from China within a time span of six years. Finally, quality issues and logistic and labor costs emerge as the foremost reasons for back-reshoring.

TABLE 3: SELECTED CASES OF RESHORING OF MANUFACTURING OPERATIONS TO THE UNITED STATES, 2010–2013 (SOURCE: BASED ON INFORMATION FROM THE RESHORING INITIATIVE. AVAILABLE AT [HTTP://WWW.RESHORENOW.ORG/RESOURCES/ LIBRARY.CFM#](http://www.reshorenw.org/resources/library.cfm#))

NCR Corporation	India, China and Hungary	The company returned part of its ATM production to a new manufacturing facility in order to be close to customers and innovate directly on-site with them. It was not seeking the lowest cost manufacturing location but reshoring realize other benefits: decreased time-to-market, improved internal collaboration and lowered current operating costs.
General Electric Appliances	China	The company manufactures dishwashers, refrigerators and heaters. Labour savings were eaten away by an inability to carry appropriate inventory levels as well as by inconsistent delivery schedules, resulting in overall costs that were 6 per cent higher than in the United States.
SolarWorld	China	A builder of solar panels committed to western labour and environmental standards that were not matched by its Chinese site. Labour accounted for less than 10 per cent of total costs, and close to half of the savings on labour from using Chinese workers was lost to higher shipping costs. The other half, or more, was made up for by the higher labour productivity in the United States.
LightSaver Technologies	China	The company produces emergency lights for homeowners. It found that manufacturing in the United States was 2 to 5 per cent cheaper after accounting for the time and trouble of producing overseas, although manufacturing alone was 30 per cent cheaper in China.
ACE Clearwater Enterprises	Hungary and China	The company, a maker of complex formed and welded assemblies for aerospace and energy generation, reshored mainly because of quality control issues.
Offsite Networks	China	Rapid improvements in technology made it more affordable for the company to manufacture locally. This meant that labour costs, which had driven the search for cheaper workers overseas, would be a smaller percentage of total costs. In addition, other costs in China, such as shipping, had been increasing.

2.2 Global sourcing: motivations, opportunities and obstacles

Global sourcing has received growing attention both in the academic literature and in business practice since the 1980s (Monczka & Giunipero, 1984; Baldassarre, 2012; Quintens, Pauwels & Matthyssen, 2006; Steinle & Schiele, 2008; Trautmann, Bals & Hartmann, 2009; Trent & Monczka, 2003), and has remained an active area for research since (see for example Levy, 1995; Nassimbeni, 2006). While the terms ‘global sourcing’, ‘global procurement’ and ‘international sourcing’ are often being used as synonymous in the literature, a general consensus, in the more recent literature, follows the works of Monzka and Trent (1991), defining global sourcing as the final stage in the strategy evolution, seeking to include foreign supply sources as part of the overall purchasing strategy. For the purpose of this paper, we will use ‘global sourcing’ as synonymous for a sourcing arrangement outside of the market, where either the final product is assembled, or being sold (retailed) to its end customer. This growth trend has driven researchers to more thoroughly analyze the impacts of global sourcing on companies’ processes and performance to determine the best ways to cope with it. In fact, recent studies have shown that global sourcing, especially from low-cost sources, makes it harder to manage the cost versus response trade-off (Nair & Closs, 2006; Lowson, 2003). There seems, however, to be strong consensus that global sourcing is either inevitable and/or beneficial to firms. International sourcing has been called “... an automatic expectation to respond to competition” (Carter, Maltz, Yan, & Maltz, 2008, p. 225), which would leave firms little choice as to whether or not to engage in it.

There are traditionally three main motivations behind the decision to source globally: (a) cost savings, e.g., due to lower factor costs, such as wages or currency influences; (b) access to highly innovative products or technology that companies otherwise would not have and (c) promotion of sales activities in the sourcing region (Barney, 1999; Bozarth, Handfield & Das, 1998; Trent & Monczka, 2003).

TABLE 4: RATIONALE FOR GLOBAL SOURCING (IN ORDER OF IMPORTANCE).

Monczka & Giunipero (1984)	Monczka & Trent, 1991	Nassimbeni (2006)
Lower prices	Cost reduction	Purchase materials and components at lower costs
Firm had worldwide operations and attitude	Quality improvements	Achieve resources not available in the home country
Availability of foreign products	Increased exposure to worldwide technology	Possibility of acquiring less expensive manpower
Improved quality of foreign products	Delivery and reliability improvements	Global competition
Technology available from foreign sources	Introduction of competition to the local supply base	Global attitudes of the company
To fulfil countertrade/offset/local content requirements	Establishing a presence in a foreign market	Possibility of acquiring advanced technologies
Due to developing worldwide competition	Satisfying offset requirements	Reduction of commercial barriers
Improved delivery of foreign product	Increase the number of available sources	Possibility of developing a presence on foreign markets
	Reacting to the offshore sourcing practices of competitors	Presence of plants in foreign countries
		Possibility of selling products on supplying markets
		More favourable taxation

There are numerous factors influencing the adoption of global sourcing. It is to a large extent dependent on the company, the sector in which it operates, the type of product purchased and the country where the foreign supplier is located (Quintens, Pauwels, & Matthyssens, 2006). For example, Nassimbeni and Sartor (2007) reports that in Italy, textiles/clothing and chemicals/pharmaceuticals are the sectors where global sourcing is more widely adopted.

Company size is not always relevant in determining global sourcing strategy; even smaller companies often appear willing to globalize their sourcing (Cagliano, Golini, Caniato, Kalchschmidt, & Spina, 2008; Cavusgil, Yaprak, & Yeoh, 1993; Quintens, Pauwels, & Matthyssens, 2006; Leonidou, 1999; Scully & Fawcett, 1994). However, small companies may face difficulties because appropriate resources (i.e., people, money, and competences) are required to effectively operate purchasing on a global scale (Arnold, 1989; Narasimhan & Carter, 1990; Ellram, 1991). Moreover, larger companies with worldwide production facilities have easier access to foreign supply markets (Trent & Monczka,

2003; Cagliano, Golini, Caniato, Kalchschmidt, & Spina, 2008).

2.3 Evaluating the Total Cost of Global sourcing: static, dynamic and hidden costs

Earlier research (Handfield, 1994; Monczka & Giunipero, 1985; Spekman, 1991) demonstrates a clear focus on the cost-saving aspects of global sourcing, particularly for western companies. A fundamental question, though, has not yet been fully answered (Horn, Schiele & Werner, 2013): does it really help and if so, under which conditions? Few attempts have been made to quantify empirically the impact of global sourcing - particularly in low-wage-countries - and its benefits, linking the level of global sourcing to firm performance (Akkermans, Bogerd, & Vos, 1999). Moreover, the findings are somewhat ambiguous concerning the success of attempts to save costs. While “firms located in developed countries often find that labor costs are high, compared to the value that is added to their products” (Kotabe & Mudambi, 2009, p. 122), substantial differences in factor costs between developed and less developed countries, such as these labor costs, should theoretically lead to lower prices. Both managers and scholars, however, highlight the difficulty of calculating the objective value of global sourcing initiatives (Horwell & Soucy, 2007; Trent & Monczka, 2003). Favorable factor costs do not automatically translate into lower sourcing costs. The findings on the actual cost-saving results from global sourcing vary greatly, ranging from negative or zero (Kotabe & Omura, 1989; Murray et al., 1995) to 20% (Alguire et al., 1994; Petersen et al., 2000; Weber et al., 2010). Despite the importance of cost in global sourcing, few authors have proposed comprehensive cost-based decision frameworks for assessing global sourcing decisions. Instead most contributions focus on specific risks or costs associated with global sourcing, such as inventory costs (e.g. Srinivasan, 1988; Cavinato, 1992), currency fluctuations (e.g. Carter and Vickery, 1989), logistics cost (e.g. Zeng & Rossetti, 2003), or the specific disadvantages of global sourcing in comparison to local sourcing (e.g. Handfield, 1994; Levy, 1995; Nassimbeni, 2006). When planning for successful international sourcing, a company’s opportunities to conduct detailed ex-ante analysis of its purchasing strategy’s effects are limited. Purchase price comparison is often the method of choice when it comes to planning, monitoring and measuring the success of international sourcing activities (Trent & Monczka, 2005). However, a low purchase price might be offset by lower quality and delivery reliability (Degraeve & Roodhooft, 1999). Additional expenses might occur, e.g., for negotiating and contracting in a foreign language, supplier qualification, travel and transportation costs to more distant places, etc. Furthermore, uncertainties and risks might increase, e.g., the risk of supply chain interruptions.

Holweg, Reichhart and Hongand (2011), in order to assess the Total cost of global sourcing, proposed to differentiate three different cost types for LCC sourcing; (1) Static costs, notably the purchase price ex-factory gate, transport costs, customs etc.; (2) Dynamic costs such as increased pipeline and safety stock and (3) Hidden costs such as labor cost inflation, currency fluctuations or the loss of intellectual property (table 5).

TABLE 5: A FRAMEWORK FOR FINANCIAL ASSESSMENT OF GLOBAL SOURCING.

Static cost	Dynamic cost	Hidden cost
Purchase price ex- factory gate	Increased pipeline and safety stock due, which is amplified by demand volatility and product variety	Labour cost inflation due to rising standards of living and competition of the labour market
Transportation cost per unit, assuming no unexpected delays or quality problems	Inventory obsolescence due to long logistics lead-times, e.g. in case of quality problems	Currency fluctuations, in particular for cases of artificially pegged currencies
Customs and duty to clear a shipment for export	Cost of lost sales and stock-outs, as the supply chain is unresponsive to shifts in demand	Rise in transportation cost, e.g. due to higher oil price and carbon offset costs
Insurance and transaction cost	Expedited shipments, e.g. air-freight, to ensure uninterrupted supply	Overhead for managing the international supply base, including travel cost or cost for local personnel in the supplying markets
Cost of quality control and compliance with safety and environmental standards		The loss of intellectual property to contract manufacturers

Search cost and agency fees to identify and interact with local suppliers		The risk of political and economic instability or change
---	--	--

Other scholars put in evidence that geographical distances not only increase transportation costs but also complicate decision-making because inventory tends to increase due to longer lead times in the supply chain. Moreover, infrastructural deficiencies in developing countries (e.g., transportation and telecommunications, inadequate worker skills, supplier availability, supplier quality, etc.) create challenges that are normally not experienced in developed countries (Meixell & Gargeya, 2005). Furthermore, global supply chains carry specific risks such as variability and uncertainty in currency exchange rates, economic and political instability, and changes in the regulatory environment (Dornier, Ernst, Fender, & Kouvelis, 1998). One evident effect is that longer lead times and less dependable deliveries from suppliers require companies – *ceteris paribus* – to maintain higher safety stocks to preserve the same service level. This has been confirmed at an aggregate level (Golini & Kalchschmidt, 2011). According to Nassimbeni (2006), the incompatibility of just-in-time (JIT) and global sourcing has been an important area of discussion (Vickery, 1989; Das & Handfield, 1997). The key conflict here is induced by the lack of buyer–supplier proximity, since JIT sourcing places emphasis on the delivery of small quantities in frequent intervals and rapid problem-solving cycles, whereas the large distance of global sources invariably commands transportation in large batches (to achieve full container loads, for example) and renders closed-loop kaizen improvement projects difficult, since attributing cause and effect is hampered by the long logistics lead-times. The required ‘organisational’ proximity is seldom attainable for globally sourced items, which are characterised by longer, less reliable international supply lines that pass through several intermediaries (Fawcett & Birou, 1992).

Another important issue is the quality of globally outsourced products. Steven, Dong and Corsi (2014) investigate how sourcing strategies are associated with product quality recalls. In particular, the authors examines how make-or-buy decisions (i.e., outsourcing), the use of foreign suppliers (i.e., offshore outsourcing), the relocation of production to offshore markets (i.e., offshoring), and decisions to consolidate supply bases (i.e., the use of few vs. myriad suppliers) are related to product recalls. Product recalls are serious quality failures in supply chains with significant, negative impacts on firm performance. Quality compromise by one chain member would result in a quality failure of the final product. For instance, they remind the 2007 Mattel toy recall that involved a Chinese supplier compromising quality by using paint with excessively high levels of lead (Steven, Dong & Corsi, 2014, 244). Product recalls are frequently connected to the globalization of supply chains and globalization has, at times, promoted inconsistency in quality control and standards, leading to quality problems and failures. Data across multiple industries, with widely reported recalls, have been collected by the three scholars and analyzed using regression techniques: the findings indicate that offshore outsourcing (global sourcing) has a greater impact on recalls than offshoring without outsourcing; outsourcing domestically has the least influence (for a list of global sourcing obstacles and risks segmented by region see table 6: adapted from BrainNet, 2009).

TABLE 6: TOP 5 SOURCING OBSTACLES AND RISKS BY REGION

	Eastern Europe	Russia	Brasil	India	China
1	Increasing labor costs (47%)	Political risks (76%)	Currency risk (44%)	Missing standards for sourcing governance (56%)	Missing environmental standards (77%)
2	Fraud compliance (28%)	Fraud compliance (61%)	Lack of qualified workforce (32%)	Missing environmental standards (55%)	Loss of intellectual property (73%)
3	No innovation from suppliers (27%)	Trade regulations/customs (53%)	Trade regulations/customs (29%)	Poor infrastructure (53%)	Missing standards for sourcing governance (67%)

4	Bad/missing local supplier performance management (27%)	Missing environmental standards (47%)	Missing environmental standards (27%)	Increasing labor costs (41%)	Fraud compliance (64%)
5	Missing environmental standards (26%)	Currency risk (46%)	No innovation from suppliers (26%)	Quality problems (32%)	Increasing labor costs (60%)

3. The empirical analysis

3.1 The focus-group methodology

There are many definitions of what constitutes a focus group (Morgan, 1988, 9-10; Morgan, 1998,1-2; Powell, Single, & Lloyd, 1996; Stewart & Shamdasani, 1990). Essentially, a focus group is “an interview style designed for small groups” (Berg, 1998, 100) It typically involves from six to ten people discussing and commenting on particular topics or concepts under the guidance of a moderator. A key distinguishing features of the focus group approach is the ability of individuals from a similar community to interact: “The hallmark of focus groups is the explicit use of the group interaction to produce data and insights that would be less accessible without the interaction found in a group” (Morgan, 1988,12). Focus groups are particularly useful for learning about participants’ conceptualisations of particular phenomena and the language they use to describe them (Stewart and Shamdasani, 1990, p.15).

The seven participants of the focus group organized in May 2014 in Milan where chosen among those companies whose ownership is mainly or totally Italian, in order to have a comparative idea of the underpinning logic of global sourcing decisions with that of other countries’ companies, understanding if there is an “Italian way” of facing these strategic challenges. The seven represented industrial sectors were: medical devices and equipment, chemical, mechanical, electronics, safety footwear and furniture. Two companies are large companies, three are mid-sized companies and two are small-sized companies: the total sales turnover (2013) represented by the seven companies is 3,2 billion Euro, while the number of employees range from 3.700 to 60 for the smallest. The total purchasing volume (direct and indirect) managed by CPOs is 2,08 billion Euro; out of this procurement turnover the seven CPOs declared different degrees of globalization of supplies, ranging from a maximum of 55% (electronics) to a minimum of 20% (mechanical). Four of the represented companies (furniture, medical devices and equipment, footwear and electronics) have more than two production facilities abroad, geographically dispersed (China, USA, Romania, Vietnam, Brasil, Tunisia). All of them have relevant experience in global sourcing from Far East to Brasil, from Eastern European countries to South Africa, from Turkey to Morocco: they declared to have 37 different countries in their global suppliers geographic portfolio.

According to all seven CPOs the growing costs and changing dynamics pose new challenges for global sourcing. To succeed in the new environment requires moving away from traditional sourcing models toward a more holistic approach that considers the total cost of sourcing from various countries. As a result, all the seven CPOs declared that their companies have shifted their focus from low-cost-country sourcing to “best cost” country sourcing or “best value” country sourcing, two approaches that evaluates a range of factors besides just labor costs. According to our findings, BCCS is here to stay. In fact, we found broader participation overall—and companies are also taking a more strategic approach, building portfolios of supply sources and seeking to achieve competitive advantages rather than just pure cost reduction.

Participation in global sourcing is expanding beyond the major multinationals to include small to midsize companies in Italy. This is partly because it has simply gotten easier to buy from overseas suppliers. Greater market transparency has helped smaller companies to set up direct sourcing arrangements from low-cost countries. But the primary reason for increased participation is the growing sophistication of LCC-based suppliers, which are proving to be credible substitutes for Western suppliers on the world stage.

In addition, the categories of goods being sourced are expanding from traditional high-labor-content products such as garments and toys to more technology- and capital-intensive products. This is generally true across all major low-cost supply bases around the world. For example, companies are sourcing more capital equipment from these regions to reduce overall capital expenditures. From pumps to chemical plant equipment, from storage tanks to blast furnaces, companies are finding a growing number of suppliers with extensive product-development and

manufacturing experience - often the result of serving their fast-growing local economies.

All participants indicated that their companies will continue to maintain or increase their sourcing activities from best-cost countries, especially from Asia, given that their savings are still significant. Many participants noted that although the financial crisis had a negative impact in some areas, it also brought opportunities for those countries. For instance, currency devaluation has made some relatively high-cost regions such as South Korea newly viable best-cost supply bases. Other historically low-cost countries such as Mexico and Vietnam are becoming even more attractive owing to currency changes.

All CPOs observed that the global downturn brought the topic of cost reduction to the attention of top management. This attention generated pressure and incentives for procurement teams to explore other countries and supply sources as cost-saving alternatives.

At this moment of the discussion we introduced to all participants the Total Cost of Global Sourcing model proposed by Holweg, Reichhart and Hongand (2011) we ask about their experiences in measuring the financial performance of global sourcing projects.

Two CPOs (mechanical and electronic firms) reported two of their unsuccessful experience of sourcing manufactured components from China and India: after less than one year of deliveries from the Far East they realized that, through a Total Cost analysis, the price-convenience had been substantially deleted by hidden costs and quality problems. After the sharing of these experience all the participants stated that half of their global sourcing projects performed in the mid term a total cost reduction lower than the expectation

However, the risks and uncertainty surrounding labor shortages, currency volatility, and protectionism have raised concerns among the focus group participants. Four CPOs stated that they are aggressively migrating to a more diversified approach to global sourcing and are maintaining a portfolio of supply sources in different regions to mitigate risk.

The CPOs of the two larger companies also noted that the benefits of global sourcing go beyond cost savings to include strategic advantages that come from competing both locally and globally. One of the companies is transferring other steps of the value chain besides sourcing - such as R&D and manufacturing - to LCC to further develop their design capabilities and manufacturing networks. Advances such as these can create a sustainable competitive advantage. Apart from creating competitiveness on a global scale, companies are also leveraging their sourcing offices in emerging regions to help penetration in local markets. By providing access to local markets, establishing relationships with government officials, and demonstrating innovation throughout the supply chain, LCC can generate significant top- and bottom-line advantages even in emerging-market businesses.

4. Conclusions

The theoretical background and the empirical analysis provide us with a complex but interesting vision of the global sourcing phenomenon that allowed us to reviewed the existing debate on the costs and risks of such global sourcing strategies, We further postulate that many global sourcing ventures do yield less than expected benefits – or are in fact not economically viable – due to unforeseen costs that had not been accounted for in the initial calculations, a fact that was vividly illustrated in our focus group. Combined these tools will give the management much stronger conceptual and analytical guidance to improve global sourcing decisions, and thus help reduce future failures of such ventures. Conceptually, the Total cost of global sourcing model can be applied to both global sourcing, as well as international manufacturing (i.e. “offshoring”) decisions alike - the factors to be considered in either global sourcing or offshoring projects are virtually identical apart from the higher capital investment that also needs to be factored in. Future research is encouraged to apply, test and further develop the proposed framework. In particular, its application to additional cases (and preferably industries) is likely to yield additional insights into the dynamics of global sourcing decisions.

References

- [1] Accenture (2011), Manufacturing's Secret Shift. Gaining Competitive Advantage by Getting Closer to the Customer.
- [2] Akkermans, H., Bogerd, P., & Vos, B. (1999). Virtuous and vicious cycles on the road towards international supply chain management. *International Journal of Operations & Production Management*, 19, 565–581.
- [3] Cagliano, R., Golini, R., Caniato, F., Kalchschmidt, M., & Spina, G. (2008). Supply chain configurations in a global environment: a longitudinal perspective. In: EUROMA 2008 Conference Proceedings, Groningen.
- [4] Carter, J.R., Maltz, A., Yan, T., & Maltz, E. (2008). How procurement managers view low cost countries and geographies. *International Journal of Physical Distribution & Logistics Management*, 38, 224–243.
- [5] Cavusgil, S.T., Yaprak, A., & Yeoh, P.-Y. (1993). A decision-making framework for global sourcing. *International Business Review*, 2 (2), 143–152.
- [6] Ferreira, J., & Prokopets, L. (2009). Does off-shoring still make sense? *Supply Chain Management Review*, January-February, 20-27 (retrieved on 20th april 2014 su http://www.areadevelopment.com/article_pdf/id44472_does-offshoring-still-make-sense.pdf)
- [7] Fratocchi, L., Di Mauro, C., Barbieri, P., Nassimbeni, G., & Zanoni, A. (2014). When Manufacturing Moves Back: Concepts and Questions, *Journal of Purchasing and Supply Management*, 20(1), 54-59.
- [8] Holweg, M., Reichhart, A., & Hong E. (2010). On risk and cost in global sourcing. *International Journal of Production Economics*, 131(1), 333-341.
- [9] Hultman, J., Johnsen, T., Johnsen, R., & Hertz, S. (2012). An interaction approach to global sourcing: a case study of IKEA. *Journal of Purchasing and Supply Management*, 18 (1), 9–21.
- [10] Kinkel, S., (2012), Trends in Production Relocation and Back-shoring activities: Changing patterns in the course of the Global Economic Crisis. *International Journal of Operations and Production Management*, Vol. 32 No. 6, pp: 696-720
- [11] Monczka, R. M., Trent, R. J., & Petersen, K. J. (2008). Getting on tract to better global sourcing. *Supply chain management review*, March, 1-46.
- [12] Quintens, L., Pauwels, P., & Matthyssens, P., (2006). Global purchasing: state of the art and research directions. *Journal of Purchasing & Supply Management*, 12, 170-181.
- [13] Trent, R. J., & Monczka, R. M. (2005). Achieving excellence in global sourcing. *MIT Sloan Management Review*, Fall, 24-32.
- [14] Tunisini, A, Bocconcelli, R., & Pagano, A. (2011). Is local sourcing out of fashion in the globalization era? Evidence from Italian mechanical industry. *Industrial Marketing Management*, 40, 1012–1023.
- [15] Weber, M., Hiete, M., Lauer, L., Rentz, O. (2010). Low cost country sourcing and its effects on the total cost of ownership structure for a medical devices manufacturer. *Journal of Purchasing & Supply Management*, 16, 4-16.

Contact authors for the complete list of references at fabrizio.baldassarre@uniba.it or at raffaele.campo@uniba.it.

**Applying the Geomarketing Concept to Develop a Car Dealership Network in Iași,
Romania**

Ovidiu Dascălu, ovidiu.dascalu@porsche.ro

Applying the Geomarketing Concept to Develop a Car Dealership Network in Iași, Romania

Abstract

In the aftermath of the financial crisis, car dealership networks need to increase efficiency and competitiveness through spatial marketing applications. Currently, the marketing analysis of territories through geographical informative systems and spatial data known under the name of Geomarketing is highly considered, especially in the car distribution networks. Consequently, lately there has been a high increase in the interest to Geomarketing, as a useful universal analytical instrument so that managers can make more informed location decisions.

In this vein, the hereby article presents a case study on the Škoda dealer from Romania, Iași having as major objectives to specify the optimal place of dealer point placing in the Iași area through the generation of a heat map and to define it's optimal attributes. The conclusion of this case study is that, in Iași, Škoda managers need rethinking their marketing place strategy either by relocating in territory (in the area where are concentrated the deliveries of competing brands) or by opening a new dealer shop in the same area of strategic interest of its competitors, currently uncovered by Škoda.

Introduction

The Objective and Applications of the Geomarketing Concept

Geomarketing represents a multifaceted approach allowing not only comprehensive overviews of market but also company data and precise micro geographic studies. In the attempt of companies to increase their potential and pinpoint their target group within highly competitive markets, the Geomarketing flexibility is vital, since it must take into account not only local but also other different factors. (Hardt-Beischl, 2014).

The Geomarketing sums up planning, coordination and control of the customer-oriented activities using geo-information system (Schüssler, 2006). The Geomarketing analyses current or potential markets from the regional / spatial point of view, for an effective planning and measuring of the distribution. Geomarketing completes the classical mix of marketing; Price, Product, Promotion and Distribution to a spatial method of approach, which helps to differentiate the market geographically. It is no more about “who is my customer?” but about “where is my customer?” as in the figure below (number 1).



FIGURE 7: APPROACH OF THE GEOMARKETING REGARDING THE CLASSICAL MIX OF MARKETING

Source: Herter, 2007

The process of globalization has brought the need for companies to study possible new markets because customers are always in search of facilities with regards to the products offered (Ramos, de Oliveira, Neves, Ferreira, 2011, p. 4752). Based on this new market context, analysis methods are constantly arising, such as Geomarketing, which follows a similar trend with that of the market growth. The Geomarketing was defined by Yrigoyen (2003) as “a set of techniques that analyze the economic reality through a geographical point of view, using cartographic instruments and tools of spatial statistics.” Cavion and Philips (2006, p. 1) emphasized that geography, cartography and marketing are directly interconnected within Geomarketing, so that each has a fundamental contribution to a more efficient outcome.

The integration of spatial analysis tools such as Geographical Information Systems (GIS) and marketing techniques can offer to entrepreneurs important information about the relationships and needs of its customers. Thus, this paper aims to demonstrate how techniques of representation and spatial analysis of geographic information contribute to the process of Geomarketing and its applications in a given market (car dealership).

In this new method customers become the main assets and therefore, Geomarketing studies geographic data according to their spatial behavior which is generally based on concepts among which we mention: less effort, connectivity or accessibility.

From the point of view of its applications, the term of geo-marketing is often associated with studies regarding the expansion of networks of Point of Sale (POS) or services (Da Silva, Domingues, Parra Miranda, 2012, p. 7). Indeed, the history of this field of market intelligence is strongly related to the development of techniques for locating/relocating business units. There are, however, numerous applications of geo-marketing, less known, but which are fundamental to understanding the breadth of modern Geomarketing (Gregori, 2010). As Gregori (2009) stipulates, the geo-marketing offers resources to preserve or strengthen an organization by means of the applications highlighted below:

a) Optimization of sales territories and routes: companies face significant waste by not defining sales territories and routes of vendors’ potential. Through geo-marketing methods, one can measure the potential of the market at a micro-regional level. By combining this information to spatial data, including roads access and transportation, one can optimize routes and strategies for managing and hedging markets.

b) Networks optimization via points of contact (PoC). Companies that distribute their products or services through networks of points of contact (retail, banking, financial, etc.) can significantly improve their results by optimizing their placement of POCs, ensuring that their resources are allocated in the most efficient and appropriate manner to their company's strategic time mode.

Main Objectives of the Paper

In our article we will focus mainly on market potential and turnover.

From the point of view of the object of our research, Geomarketing is considered a major quality of a company’s distribution policy (Chasco-Yrigoyen, 2004). The hereby study is meant to bring success and performance through regional market management, especially for the development of a car dealership network, in our case in Iași, Romania.

Why examine the access to car dealership networks and their position in the Iași area?

- In order to develop an efficient car dealership location in the Iași urban area and determine the degree to attract possible customers, by identifying the ideal area where Škoda dealership can be founded;
- In order to analyze the competitive environment of the car dealership networks in Iași and therefore to identify the highest demand for cars of different types according to the spatial opportunities;
- In order to evaluate a certain location by various characteristics of car dealership networks such as: spatial behavior of customers, turnover and market share;
- In order to analyze the feasibility of a new location for Škoda in Iași or the relocation of the existing one.

Therefore, the concrete objectives of this research are to develop a car dealership network in Iași, for Škoda dealer. In this vein, the case study presented in this article focuses on the Škoda dealer from Romania, Iași and the main goals are to identify the ideal location of dealer point placing in the Iași area by generating a heat map and by defining it’s ideal features.

Further on, a description of outcomes of the research is presented in terms of methods and techniques originated by investigating both the Geomarketing field and the case study company.

Method

To address the above mentioned research issues, a particular methodology is proposed that includes a paradigm for visual representation and navigation along with Geomarketing techniques aiming at experimenting it in different domains. This research will be an explorative research that will examine if and how the Škoda car dealership network are managing efficiency and competitiveness situations through spatial marketing applications and what are the specific steps that they are taking in order to prepare the organization for rethinking their marketing place strategy. Using a Geomarketing approach the research will be highly analytical, examining if it is necessary or not to open a new Škoda dealer shop, and in which area of strategic interest in the specific region.

The collection of primary data will be conducted from Geomarketing instruments. By these tools, the author will examine sales territory planning by using large wall maps, pins and strings. Along with its specialized software, Geomarketing will provide in depth data regarding the process of sales structure directly on digital maps, will plan new idealized structures and perform fine-tuning measures for Škoda dealer network from Iași, Romania. Secondary data will be collected from reviews of other comparable researches conducted in this field, as well as from review of the literature written on this subject.

For the statistical database several variables were collected in order to identify the market share of each car dealership in Iași:

- a. Car dealership locations, addresses, market shares and yearly deliveries.
- b. The number of adjacent locations, if any, were collected from field observations in each location.

Results

Step 1. Locating the car dealership networks in Iași. First of all, it should be noted that, Škoda dealer location in Iași is not in the same area as the rest of its main competitors (Dacia, Renault, VW, Opel, Ford, etc), as it can be seen in figure number 2.

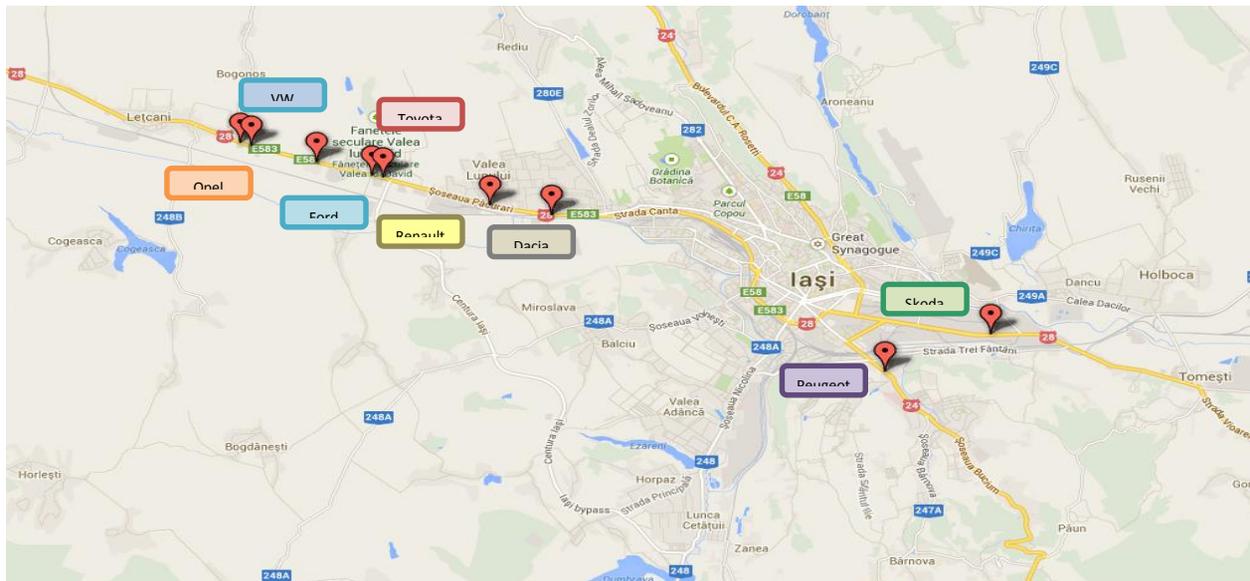


FIGURE 2: CAR DEALERSHIP NETWORKS LOCATION IN IAȘI

According to our researches and figure number 2, six major car dealership are located in the North-West of Iași, on Pacurari Street, meanwhile Škoda and Peugeot are located in the opposite part (South-East) of the city, but in the same area.

Step 2. Locating the heat map with regards to the car dealership networks in Iași. Additionally, from our results it becomes clear that the heat point of the car geographical distribution is situated on the Pacurari Street area, in Iași), where most car dealership networks are located, and not where Škoda dealership is located, as it can be observed in figure number 3.

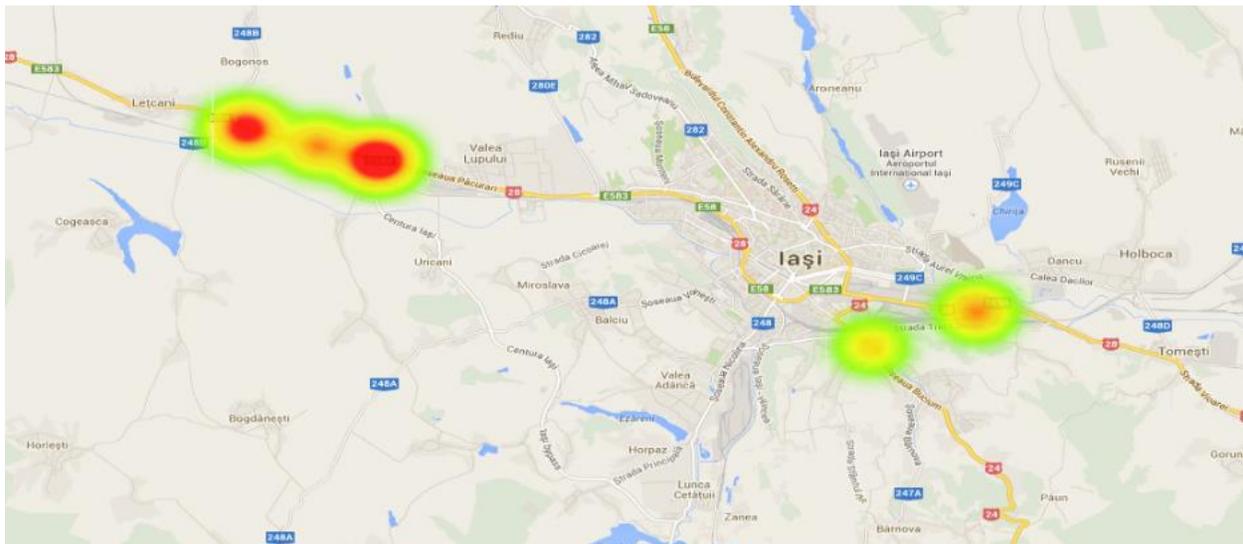


FIGURE 3. CAR DEALERSHIP NETWORK HEAT MAP IN IAȘI

Further on, was calculated the market share evolution during 2009-2013 without taking into account Dacia (the national car sales leader) in order to get a perspective view on the share evolution of each car dealership network from Iași.

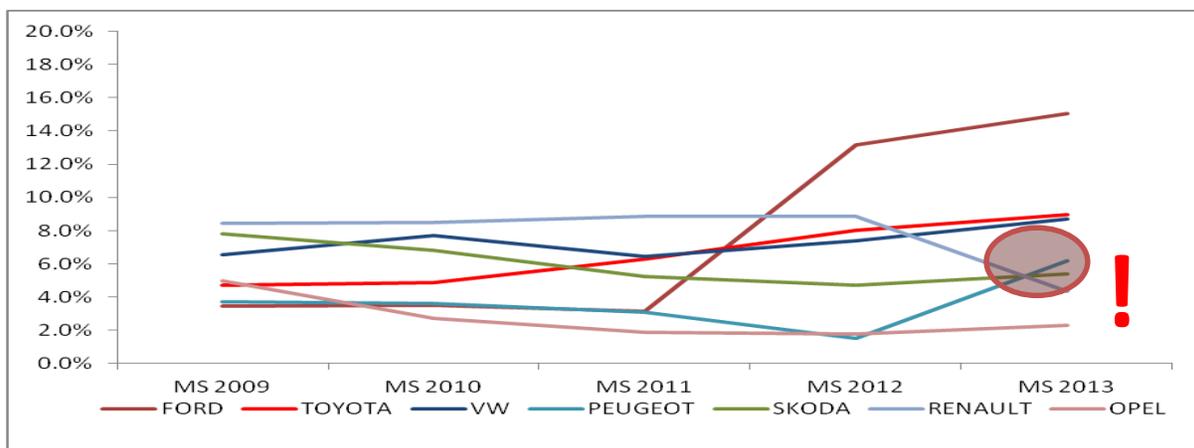


FIGURE 4. CAR DEALERSHIP NETWORK MARKET SHARE EVOLUTION IN IAȘI (WITHOUT DACIA)

We chose to calculate the deliveries of the car dealer networks in Iași, during 2009-2013 according to their location, in order to understand if Škoda has or not a competitive advantage due to its location. Without taking into consideration Dacia, as already mentioned above, the scale expands and this gives us the opportunity to analyze in detail the performance of all competitors in the field.

Step 3. Locating the main problems faced by Škoda dealership. Lately, Peugeot enjoyed its geographical position winning Škoda customers (see 2012 versus 2013 benchmarking in figure number 4)

As in every distribution business, the controlling of the distribution policy is very complex and has an important role for the success of the company. It has not only to check if the products arrive at the final consumers in a desired way, but it also has to analyze the costs of the logistics in order to reduce them as much as possible. The fact that Peugeot has taken over Škoda's clients is a big threat for Škoda, especially when we speak of about 15% customers loss.

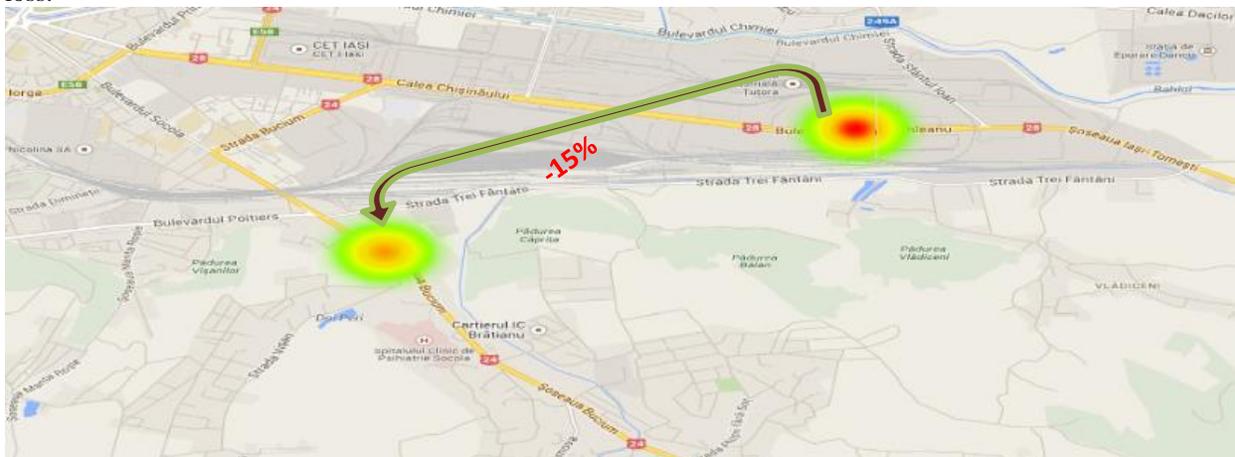


FIGURE 5. DELIVERIES 2009 – 2013. GEOGRAPHICAL SUBSTITUTION OF DELIVERIES BETWEEN ŠKODA & PEUGEOT

Step 4. Locating the ideal Škoda dealership location. The results of the research prove that managers need rethinking the location of Škoda dealership network in Iași, which, although close to Peugeot, is in the opposite part of the city compared to the other car dealership networks. As the article proved, the deliveries of competing brands are much higher, due to their location. Also, Peugeot is stealing customers from Škoda. Therefore, the solution proposed for Škoda is either relocating in territory (in the area where are concentrated the deliveries of competing brands) or opening a new dealer shop in the same area of strategic interest of its competitors, currently uncovered by Škoda.

Discussion

Even if Geomarketing activity begins to have an increasing recognition in larger firms in Iași, Romania, by creating specific departments and placing it at a strategic level, Geomarketing still remains at a low developed level

The research also points out that:

- a. The more diverse are the variables taken into consideration for the classification of car dealership network, the more precise and accurate will be the typology obtained;
- b. In accordance with the methodology used in the paper, Geomarketing solutions should be based on the approaches below:
 - the highest market share principle;
 - positioning in the given area according to a hedonic model;

- suitability of the area for building/renting a new location;
- location-allocation model;
- quantitative models for assessing the possible interaction between suppliers and customers;
- customers' behavior.

We can conclude that the distribution of car dealership networks in Iași is rather even, because there are so far two major areas where car dealerships are located. Among these, the Pacurari Street stands out, being the area with the highest values of car market share. Also the Geomarketing research indicates this zone as being the most suitable for opening a new/relocating the old Škoda car dealership.

References

- [1] Cavion, Renata, Philips, Jurgen. Os Fundamentos do Geomarketing: Cartografia, Geografia e Marketing. In: *Congresso Brasileiro de Cadastro Técnico Multifinalitário (COBRAC)*, 2006, Florianópolis. Anais... Florianópolis: UFSC, 2006, 9 p., Available at: < <http://geomarketing.planetaclix.pt/pdf/cobrac06.pdf>>. Retrieved on 03/05/2014.
- [2] Chasco-Yrigoyen, Coro. (2004). El Geomarketing y la Distribución Comercial, *Investigación y Marketing*, No. 79.
- [3] Da Silva, Juliano Domingues, Isabella Tamine Parra Miranda. (2012) Contribuição Do Geomarketing Para A Escolha Dos Meios De Comunicação Com O Público-Alvo. *EPCT Etica na Pesquisa Científica*, Anais VII, pp. 1-13.
- [4] Dascălu, Ovidiu, Albulescu, Simona. (2014). Developing a Car Dealership Network. How to Use the Geomarketing Concept. *FAIMA BUSINESS & MANAGEMENT JOURNAL*, [to be published].
- [5] Dascălu, Ovidiu, Albulescu Simona. (2014). Geomarketing Implementation in the Automotive Distribution Companies in Bucharest. *The 3rd International Virtual Conference 2014, (ICTIC 2014)* Slovakia, EDIS - Publishing Institution of the University of Zilina, Volume 3, pp. 49-53,
- [6] [6] Gregori, Reinaldo. (2009) Geo-inteligencia. Revista InfoGEO. n. 55, jan. 2009. Available at: <<<http://mundogeo.com/blog/2009/01/01/geo-inteligencia/>>> Retrieved on 03/05/2014.
- [7] Gregori, Reinaldo. (2010). Vem aí o superconsumidor. Revista InfoGEO. n. 59, jan. 2010. Available at: <<<http://mundogeo.com/blog/2010/01/29/vem-ai-o-superconsumidor/>>> Retrieved on 03/05/2014.
- [8] Hardt-Beischl, Doris (2012, November 1). <http://www.gfk.ua/>. Retrieved May 2, 2014, Available at http://www.gfk.ua/marketing_solutions/geomarketing/index.en.html:
http://www.gfk.ua/imperia/md/content/gfkukraine/gfkbrochures/geomarketing_in_practice.pdf
- [9] Herter, Michael Karl-Heinz Mühlbauer. (2007). *Handbuch Geomarketing*, Wichmann, Verlag C.H. Beck.
- [10] Ramos Ricardo Soares, Júlio César de Oliveira, José Carlos Neves Epiphanyo, Edgar Ricardo Ferreira. (2011), Geomarketing – Uso de análise espacial como suporte ao marketing empresarial, *Anais XV Simpósio Brasileiro de Sensoriamento Remoto - SBSR*, Curitiba, PR, Brasil, pp. 4752-4759.
- [11] Schüssler, Frank. (2006). *Geomarketing, Anwendung Geographischer Informationssysteme im Einzelhandel*, Tectum Verlag.

**Innovation, Internationalisation, and Business Performance:
Case Studies from the Italian Furniture Industry**

Giovanna Pegan, giovanna.pegan@deams.units.it

Patrizia de Luca, patrizia.deluca@deams.units.it

University of Trieste (Italy)

Innovation, Internationalisation, and Business Performance: Case Studies from the Italian Furniture Industry

Abstract

Innovation and internationalisation processes are relevant key drivers for the development of companies. Their role in performance and success of firms is still an open question in the literature, suggesting the need for further research. In this context, our paper¹ aims to improve understanding of the relationship between innovation, internationalisation, and performance focusing on the Italian furniture industry. In a systematic effort to match the empirical world to theory, we adopted a qualitative approach based on a multiple-case study of four Italian furniture firms. First, we found that, for the managers interviewed, innovation is relevant if it creates new value for customers. Second, our findings suggest that the relationship can be better explained through in depth analysis of the key dimensions of innovation and the different local contexts.

Background

Innovation is one of the most studied topics in management today. From Schumpeter's (1942) pioneering contributions onwards, innovation has been considered to be a multifaceted concept whose meaning extends well beyond the narrow boundaries of technological innovation. Several literature proposals on this topic tried to define innovation and its taxonomy; they all recognised that innovating is an activity that pertains less to the domain of technology and more to domains such as marketing, operation management, supply chain management, and their combination (Bortoluzzi, de Luca, Venier & Balboni, 2014).

One of the most popular distinctions is the one introduced by Damanpour (1991) that distinguishes between technical and administrative innovation. While the former (technical) refers to the launch of new products in the market and to the adoption of new production processes to increase efficiency, the latter (administrative) refers to new procedures, policies, and organisational forms. The Oslo Manual (OECD, 2005: 46) defines innovation as "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations". Another proposal comes from Tidd and Bessant (2009), who refer to a 4Ps framework of product, process, position and paradigm. While product and process represent traditional aspects of innovation, position refers to a change triggered in the consumers' perception of a product, a brand, or a firm. By innovation at the paradigm level, the authors refer to changes occurring at the business model level. It goes without saying that pursuing such types of innovation is very complex, since it involves different levels (strategic, operative) and functions (marketing, supply chain, operation management, finance, etc.) in the firm.

An interesting contribution, coming from Sawhney, Wolcott, and Arroniz (2006), defined business innovation as "the creation of substantial new value for customers and the firm by creatively changing one or more dimensions of the business system" (p. 29). While managers might consider innovation only as synonymous with new product development or traditional Research & Development (R&D), the authors consider that "such myopia can lead to the systematic erosion of competitive advantage, resulting in firms within an industry looking more similar to each other over time". In contrast, the authors point out that "business innovation is far broader in scope than product or technological innovation" (p. 28). In this perspective, business innovation: a) is new value (not only new things); b) comes in many flavours; c) is systemic. A new tool, called "innovation radar" by the authors, presents and relates all the dimensions of business innovation, anchored by the offerings a company creates (what), the customer it serves (who), the processes it employs (how), and the points of presence it uses to take its offerings to market (where) (Sawhney et al., 2006, p. 30). There are 12 dimensions:

¹ This study is a part of a wider research project supported by the University of Trieste (Italy) under the FRA 2012 Program.

1. Offerings (develop innovative new products or services);
2. Platform (use common components or building blocks to create derivative offerings);
3. Solutions (create integrated and customised offerings that solve customer problems end-to-end);
4. Customers (discover unmet customer needs or identify underserved customer segments);
5. Customer experience (redesign customer interactions across all touch points and all moments of contact);
6. Value capture (redefine how the company gets paid or create innovative new revenue streams);
7. Processes (redesign core operating processes to improve efficiency and effectiveness);
8. Organisation (change form, function, or activity scope of the firm);
9. Supply chain (think differently about sourcing and fulfilment);
10. Presence (create new distribution channels or innovative points of presence, sale and consumption);
11. Networking (create network-centric intelligent and integrated offerings);
12. Brand (take a brand into new domains).

Independently of the type of innovation, several studies show that innovative companies are more successful. First, according to some authors (Cooper & Kleinschmidt, 1995; Poon & MacPherson, 2005; Bhaskaran, 2006), they achieve better business results, such as more market share and profits. Second, innovative companies stand out on qualitative aspects, such as increased reputation, customer loyalty, relative attractiveness of products to the customer, and so on (Kuster & Vila, 2011). In any case, the relationship between innovation and economic performance is still an open issue in the international literature (Garcia & Calantone, 2001). While several studies highlight that innovation positively affects performance (Hall & Mairesse, 1995; Adams & Jaffe, 1996; Chesbrough, 2007), other studies point out that innovation is not sufficient to garner economic and competitive success, suggesting an uncertain relationship (Rosenbusch et al., 2011; Lazzeri & Piccaluga, 2011).

Why do innovative companies show different economic performance? In recent decades, the competitive landscape has changed consistently for firms in all industries. The globalisation of the world economy and the continuous evolution of technologies have pushed firms to evolve continuously and considerably, in different countries and markets. Consequently, coupling strategic agility with the capability to innovate has become compulsory (Doz & Kosonen, 2008, 2010). Some authors contribute to the discussion by pointing out the existence of strong strategic synergies between innovation and internationalisation processes, also in affecting company performance (Kotabe et al., 2002; Kafouros et al., 2008; Wilson & Doz, 2009; Onetti et al., 2010; Siedschlag et al., 2010; Cassiman & Golovko, 2011; Küster & Vila, 2011; Lecerf, 2012; Louart & Martin, 2012; Yu & Si, 2012). The relevance of that relationship appears above all in the case of emerging markets, where some empirical evidence reveals the failure of several market entering decisions, due above all to the inability of the firms to adapt their innovation strategies to the economical and institutional features of foreign markets (Ramamurti, 2000, 2004). Consideration of the role played by market-specific factors, such as the local socio-economic context, in innovation development is not recent. In the past, Schumpeter (1934) highlighted the role of context in innovation. Furthermore, at a very abstract level, Nelson and Winter (1982) discussed about the survival of firms propelled by innovation, but determined by the environment. At a less abstract level, according to the literature on technological capabilities in developing countries, other authors (Kim, 1980; Dahlman et al., 1987; Lall, 1992) considered the sensitivity of innovation to local conditions. From another point of view, the literature on social capabilities (Abramovitz, 1986) also proposed the need to develop favourable conditions for innovation (Srholec, 2011).

Consideration of the context leads one to consider the role of market orientation in innovation (Lukas & Ferrell, 2000). The literature suggests that market orientation behavior leads to more innovation and greater success with new products. According to Jaworski and Kohli (1993), market orientation implies carrying out new actions in order to respond to market conditions. Consequently, as pointed out in recent studies (Lado & Maydeu-Olivares, 2011; Agarwal, Erramill & Dev, 2003), market-oriented behavior has an impact on innovation; that is, companies that are more market-oriented will be more innovative. In the end, both market orientation and innovation lead to business success (Küster & Vila, 2006: 40-41).

In this perspective, in an international context, market orientation encourages one to consider the question of standardisation versus adaptation. Indeed, on the one hand, the need for adaptation to a specific foreign context could lead to innovation, repeatable in turn in different markets. On the other hand, innovation—along all its dimensions—

could facilitate the internationalisation process, allowing greater effectiveness and efficiency when competing in specific foreign markets.

Research Questions and Method

Innovation and internationalisation processes are relevant key drivers for the development of companies. Their role in the performance and success of the firms is still an open question in the national and international literature. The findings from existing studies differ in many respects, suggesting the need for further research. In this framework, our paper aims to improve understanding of the relationship between innovation and internationalisation as they affect economic and competitive success. Some research questions were developed:

RQ1: What does innovation mean and what are its main dimensions from a company's perspective?

RQ2: What do managers think the relationship between innovation and internationalisation?

RQ3: How can different local contexts affect the relationship between innovation and internationalisation?

RQ4: How can innovation and internationalisation contribute to economic and competitive success?

In order to answer to these questions, qualitative research was undertaken using a multiple-case study (Eisenhardt, 1989; Yin, 2009). The objective was to explore deeply the existing relationship between innovation and internationalisation through systematic work to find a match between theory and practice (Eisenhardt, 1989; Dubois & Gadde, 2002; Strauss & Corbin, 1990; Yin, 1994, 2003, 2009). Indeed, as different scholars have pointed out, the case study approach, allowing detailed examination of a specific phenomenon or other related events (Yin, 1984; Gummesson, 2000; Ojasalo, 2012), offers an important advantage, namely, the opportunity for a holistic view. This method is very flexible, due to the fact that case studies can be descriptive, exploratory, or explanatory. Furthermore, according to Eisenhardt (1991), multiple cases become powerful tools in building theories, because they allow replication and extension to other singular cases. Replication means that single cases can be used to help researchers simplify recognition of patterns. Extension refers to the use of multiple cases to create a complex theory, since different cases often reveal complementary aspects of the same phenomenon.

This paper is based on an analysis of the data collected in a specific industry, house furnishing by Italian firms. The choice is based on the fact that this is one of the leading branches of Italian manufacturing, as well as on its status with the emblem of *made in Italy* in the world², even if in the last few years it has been confronted with changing scenarios—first of all the stagnation of internal demand³, then the growing competitive pressure from new producers, such as China⁴—that threaten to reduce the market share of Italian firms in the foreign markets. In this new and even more complex competitive field, the business innovation of a firm, defined as a new value for customers (Sawhney et al., 2006), is identified with the capacity to grow by consolidating presence on the international markets; this has become a strategic imperative (Vianelli, de Luca, & Pegan, 2012).

We have studied four cases of Italian furniture firms that have operated for several years in foreign markets, also via commercial/administrative branches, and that present in the majority a high rate of foreign sales on total sales. In Table 1, we summarise the main features of the analysis. In the first phase of the study, we analysed a single case⁵ and in the second phase, we conducted a comparative study of the different cases, in order to spot common patterns. The case study method required collecting primary and secondary data. Secondary data came from different sources, such as companies' documents, web sites, and reports. We collected primary data through in depth interviews of export managers who are strongly involved in the strategic decisions of their respective companies. The interviews, lasting

² After the USA (19%), Italy (8%) represents the main furnishing producer in the seven main industrial economies of the world that together cover 47% of the total production worldwide. Added together, the production in all the developed countries covers 61% of the total (World Furniture Outlook 2013).

³ The international crisis, from 2007 till now, has reduced national consumptions by 30% (Il Sole 24 Ore, 2013).

⁴ Production in emerging countries covers 39% of the total, while China on its own is 20%, followed by Poland, Brazil and Vietnam. These are countries that have seen their production increase thanks to specific investments in specialised structures, designed and built to promote exportation (World Furniture Outlook 2013).

⁵ In this paper, we pay attention only to the results that emerged from the second phase of the study.

60 to 90 minutes, were taped and transcribed⁶. Our coding scheme development was driven both by the data and theory.

TABLE 1: MAIN CHARACTERISTICS OF THE FOUR CASES OF ITALIAN FURNITURE FIRMS

	Turnover 2013 Millions €	Foreign Sales/Total Sales (%)	Number of employees	Core business	Commercial/administrative foreign branches	Number of countries	Sale points owned
Firm C	130	65%	600	Furniture	Yes	90 countries	Yes
Firm M	30	80%	146	Padding and seats for high quality furnishing	Yes	84 countries	No
Firm S	180	78%	1200	Kitchens	Yes	80 countries	Yes
Firm V	35	37%	165	Kitchens	No	NA	No

Findings and Discussion

With the aim of answering the first research question (what innovation means and what its main dimensions are from a company's perspective) we propose a definition of innovation given by the interviewed firms and a derivation of the main dimensions that have been the investment objectives of the same firms in the last 5 years (see Tables 2 and 3). As you can see in Table 2, companies proposed different definitions that showed clear links to their specific businesses.

TABLE 2: DEFINITION OF INNOVATION FROM A COMPANY PERSPECTIVE

	Definition of innovation
Case C	<i>"I can imagine innovation as a show schedule of supporting tools that are needed to make happen what has been decided to..." ..innovation is shifting from selling products, most of all tables and chairs, to selling branded spaces."</i>
Case M	<i>"The innovation in the furnishing field is mainly characterized by the use of materials known in a new way rather than the research of new ones." "In the furnishing sector there's the presence of a low surplus value from a technological point of view." "Innovation of refinement, for example a carpet used as a upholstery because the director had decided." "Proposing new products is a standard of our sector, however, some remain only proposals and other become catalogue products." "Giving a definition of innovation is hard: for me innovation often means going back to past values."</i>
Case S	<i>"If for innovation we intend change/evolution/improvement it has happened everything, we changed our group structure, we created platforms of group products that gave us the opportunity for a new positioning of prices in a lower sense, this much is tied to the product/process that are the two things that have been in syntony with the change of the markets targets as well as the client/consumer."</i>

⁶ The data collected through the interviews have been literally translated in English, in order to maintain the original meaning. For this reason, the tables can present several errors.

Case V	<i>“In the furnishing field innovation means most of all innovation of material, materials that are used in kitchen or in furnishing, innovation of shape and there’s in any case the innovation which is linked to a new way of using ergonomically the kitchen...”</i>
--------	--

In two cases, C and S, it emerges that innovating is an activity that pertains more to domains such as marketing, operations management, and supply chain management, and their combination, in agreement with the prevailing literature (Tidd & Bessant, 2009). In the other two cases, M and V, however, the interviewed subjects placed importance especially on the technological aspects, such as materials, shape, usage functions, and ergonomic features. In any case, innovation is not easy to define, as M underlined: *“Giving a definition of innovation is hard...”*

To look more deeply at the concept of innovation from the managers perspective, in Table 3 we have summarised the results that emerged on the main dimensions of the innovation radar (Sawhney et.al., 2006, p. 30) that, according to the interviewed subjects, have involved their companies in the last five years.

TABLE 3: MAIN DIMENSIONS OF BUSINESS INNOVATION DURING THE LAST 5 YEARS

Dimensions of Innovation		Case C	Case M	Case S	Case V
<i>What</i>	Offering	2	1	1	1
	Platform				
	Solutions				2
<i>Who</i>	Customer	4		4	
	Customer Experience				
	Value capture				
<i>How</i>	Processes	3		2	3
	Organization		3		4
	Supply chain				
<i>Where</i>	Presence	1		3	
	Networking		2		
	Brand		4		

First of all, in most cases, the dimensions linked to offering (*what*) turned out to be the most relevant aspects of the radar selected from the interviewed managers, not only in terms of innovation of the product, but also in terms of real, true furnishing solutions proposed to satisfy efficiently the changing needs of the market. However, with the purpose of creating new value for customers, there is agreement on the primary importance of innovating via organisational internal or external processes. This type of innovation can improve effectiveness and efficiency, giving the company a chance to meet the challenges of a more complex and competitive market. Especially in the two larger companies’ cases (C and S), it in fact surfaced that “managers think holistically in terms of all possible dimensions through which their organisation can innovate” (Sawhney et al., 2006, p. 29). The strategic relevance of investing in branding in such a fragmented sector represents a crucial aspect of operating successfully in foreign markets. It is interesting to highlight how, in the case of firm M, the revision of the processes was introduced most of all in a new value given to marketing, where the core aim is to make brand equity. For cases C and S, the co-creation of the brand value all along the supply chain represented instead a strategic imperative that is nowadays also consolidated abroad. Indeed, these companies are used to proposing innovative furniture solutions, offered to the customers in branded points of presence, where the distinctive value of *made in Italy* enhances their product offering (Mattiacci & Pastore, 2014; Pegan, Vianelli, & de Luca, 2013).

With regard to the second research question (how managers consider the relationship between innovation and internationalisation to obtain economic and competitive success), from the results of our case analysis three main categories emerged (see Table 4).

TABLE 4: RELATIONSHIP BETWEEN INNOVATION AND INTERNATIONALISATION

	Innovation drives internationalisation	Internationalisation drives innovation	Bidirectional relationship
Case C			<i>It's a symbiotical relation...an egg-chicken relation: it is difficult to say if it is more the fact of becoming international that has boosted innovation or vice versa." (C)</i> <i>"It's hard to define which is the cause and which is the effect...the two things nourish one the other." (C)</i>
Case M		<i>"The foreign market –so internationalization- has forced us to change, to renew, to stay ground to the concept that if you adapt yourself you survive otherwise you exit from the market." (M)</i>	
Case S			<i>To me it is bidirectional...there is a tension to internationalization that is businesslike and this nourishes the will to innovate." (S)</i>
Case V	<i>"You cannot internationalize without innovation." (V)</i>		

First, innovation drives internationalisation, as in case V, where the interviewed manager said that without innovation, internationalisation is impossible. Second, internationalisation drives innovation, as in case M, where the interviewed manager highlighted the role of the foreign markets in the innovation process; for example, a law in a foreign market excluding the use of specific materials could affect the firm's innovation process. Third, the relationship between innovation and interrelation is bidirectional, as pointed out in case C and S. Both the interviewed managers emphasised that it is difficult to recognise which is the cause and which is the effect; in the real global context these two dimensions are strongly interrelated. The interviewed managers, according to what the literature emphasized (Kotabe et.al, 2002; Kafourous et al., 2008; Siedschlag et al., 2010; Cassiman & Golovko, 2011; Küster & Vila, 2011; Lecerf, 2012; Louart & Martin, 2012; Yu & Si, 2012), agreed on the existence of a strong strategic synergy between innovation and internationalisation processes that affects company success.

In this general framework on the relationship between innovation and internationalisation, it is really interesting to highlight that, from the analysed firms' perspectives, this relationship is clarified by studying the possible interactions with the single key dimension of innovation. In particular, you can see this in Table 5, where some interviewed managers (C and V) state that an innovation along the product dimension, that is, the creation of a new product or service valued by customers, represents a key driver of the internationalisation process of a firm. The decision to expand or enter into new markets, for all the participating firms, drives business innovation, especially along their core operating processes, in order to improve efficiency and effectiveness. The interviewed managers agreed that a firm can take advantage of foreign market opportunities only if there's the possibility to innovate its organisation. Also Case V, in agreement with Sawhney et al. (2006), underlines the fact that an organisational innovation often involves a redefinition of people's roles and responsibilities. The challenge of internationalisation and the establishment of new and stronger competition lead to an increase in investment in branding, moreover, consisting in the creation of new points of presence that boost brand awareness of all the foreign intermediaries and final customers. As suggested by managers, these investments represent a strategic tool for competing successfully in the furniture industry, where generally the final consumer cannot perceive the added value of the *made in Italy* products (Pegan, Sambri, 2009; de Luca & Pegan, 2013).

The main results of our study, related to the third research question (how different local contexts affect the relationship between innovation and internationalisation), are illustrated in Table 6. The experience of company S indicates how this relationship is linked to the different markets in this study. The complexity of a furniture product that enters in

Eastern customers' houses with their very different cultures emphasises the importance of adopting a localized approach (Alon & Jaffe, 2013). In other words, an adaptive approach to the local market is needed, whereby innovation is achieved in a way specific to that market and along different dimensions, most of all in the so-called emerging markets, such as India. Also, in the case of firm M, the driving role that markets such as India, Japan and Brazil – according to the CAGE distance framework, these countries are very different from the western ones - have in stimulating business innovation along different dimensions is clear, especially the ones anchored to offering and to the organisation process. These results seem to support the idea that, in agreement with Jaworski and Kohli (1993), market orientation implies carrying out new actions in order to respond to market conditions. Consequently, companies which are more market-oriented might be more innovative (Lado & Maydeu - Olivares, 2011; Agarwaal et al., 2003).

It is important to note that, according to the interviewees, another crucial context factor in the relationship between innovation and internationalisation is surely the international crisis. On this issue, case S points out how the same crisis has been a great opportunity to innovate or improve business: *“the positive aspect of the crisis is that it made brains move, the will, the duty to call again into question and what was good before is no longer so, if you remain fixed there you are “dead”; each delay on change meets a competitor that is quicker, more good in changing...eliminate the frippery, everything that is in excess and improve the product's quality, you can no longer afford inefficiencies...you also have to be very efficient in your processes...”*

In the international markets, the economic crisis effects speeded up a change both of intermediaries' and end customers' expectations, that is, of more value for money—not only lower prices, but also better services. In order to create new value for foreign customers, a furniture firm should be very innovative in this department. In this way, it will be easier to erase the negative image of Italian furniture firms that are expanding their services abroad (case S). To sum up, most of the cases show that context plays an important role in influencing the relationship between innovation and internationalisation.

Finally, we studied how managers perceive that the relationship between innovation and internationalisation contributes to economic and competitive success (How can innovation and internationalisation contribute to economic and competitive success?). In all the cases studied, this relationship turned out to be very complicated, above all due to the difficulty of measuring the impact that innovation has on company performance. According to Kafouros et al. (2008), the relationship between innovation and performance cannot be understood without taking into consideration the internationalisation process. For the case C, for example, innovation along the brand dimension represents the nourishment of the internationalisation process, and one of the main factors influencing the firm's performance. Also, what turns out to be relevant here is the need to understand the operational context. For example, case S says that: *“there are markets where there's a price for innovation, for the product's design, for the exclusivity of the product, for the differentiation of the product. For example in Russia we sell with a premium prize that is important because you sell the brand, the image, the product, you only sell high image products so the marginality is very high”*. In other markets, such as India, the same manager asserts that the customer is not always willing to place more value on innovation: *“If you go in a market where the client has a price level for the product, you can be as innovative as you want but you cannot go over a certain price level, you will not succeed in selling, so marginality is also linked to this...in India innovation cannot cost too much; we are having great developments but with an average marginality”*.

TABLE 5: TYPE OF RELATIONSHIP AND ITS INTERACTION WITH KEY DIMENSIONS OF INNOVATION

Dimensions of Innovation	Innovation drives Internationalisation	Internationalisation drives innovation
<p>WHAT (Offering, Platform, Solutions)</p>	<p><i>“The only way to differentiate and to differentiate our self is to offer products that are more innovative, different, more beautiful, that solve problems...so we want most of all innovation of the product.”(S)</i> <i>“There are products because you designed them in the right way, because you found the proper shape, you find clients that fall in love, wants you and put you into a shop...in Moscow rather than New York; clearly if we talk about innovation of product this is the innovation that gives you the opportunity to export.”(S)</i> <i>“Something that gave us luster is having inserted glass as a kitchen material, for what concerns worktops as well as shutters and surfaces. Glass is a noble material , it has several features that that made it a great success.” (V).</i> <i>“An opening system created by us and that only we do, that let us hide the kitchen area very quickly, because the general trend worldwide is to merge the kitchen with the day area of the house, and this is a mega trend of modern architecture, which is true in America, Europe, Asia, everywhere.”(V)</i></p>	
<p>HOW Process, Organization, Supply chain</p>		<p><i>“We had to project again product/process to enter in specific markets, because otherwise the delivery times would have been too long, the transportation costs and the duties too high.” (S)</i> <i>“If you want to go in some markets, if you don’t have something different it becomes difficult to face with the price, if we talk about retail. Vice versa we had to innovate in terms of production process/composition of the product, to succeed in entering in other markets.” (S)</i> <i>“...This new way of being in foreign markets requested the renewal of our processes capacity to give services, supports that we give to clients.”(C)</i> <i>“What I do is dealing with the area with local partners, a lot relation and less direct sell. It is important to create a relation that can convey mi brand and therefore my product.” (M)</i> <i>“The organizational innovation has been very influent, for example we only hire people that speak at least English, we didn’t do it before...We innovated several things in the company to face internationalization..”. (V)</i></p>
<p>WHERE</p>		<p><i>“In the last years we have been developing also in terms of service, much presence toward the International client, in the sense that we invested, sometimes directly other times indirectly,</i></p>

(Presence, Brand, Networking)		<p><i>with people that speak the local language with a back-office (for example in Russia and in Germany).”(V) “Let’s say that the innovation of shifting from selling products, most of all tables and chairs, to sell branded spaces has redefined the way in which we are present in the foreign markets.” (C)</i></p> <p><i>“in opening mono-brand shops we had to take into consideration competitors that where no- producer or not only producer but suppliers or retailers. Thus our internal competences had to change.” (C)</i></p> <p><i>“When we talk about vision and mission we want to become more life-style than we are now so that the brand becomes strong enough to be recognized l lover the world. On the brand itself we have been working in this perspective for 6 months.” (M)</i></p>
WHO (Customer, C.experience, Value Capture)		<p><i>“The noticed change in the luxe sector requested a re-segmentation of the clients. not only it can be said “he has the money to buy”: it is necessary to have more information on the segment.” (M)</i></p> <p><i>“We are still changing the way of making sale points; previously we had an expositive concept, now the world is different and the clients are different too.”(V)</i></p>

TABLE 6: ROLE OF THE LOCAL CONTEXT IN DRIVING BUSINESS INNOVATION

Foreign Markets	Dimensions of Innovation			
	WHAT (Offering, Platform, Solutions)	HOW (Process, Organization, Supply Chain)	WHERE (Presence, Brand, Networking)	WHO (Customer, C. Experience, Value Capture)
China/ India	<p><i>“We developed for markets such as India and China a project system of dealing with the product in a disassembled way to succeed in delivering the products in short times and to deal with transportation cost efficiently.” (S)</i></p> <p><i>“... Even in China it’s complicated to import therefore to be quicker and have less spreading problems we make aluminium structures.” (M)</i></p>			<p><i>“Chinese brought market to a lower level, but they have rebalanced it, asking us to re-evaluate payment procedures.” (M)</i></p>

	<p><i>“If we talk about India there is a type of kitchen which is done in a specific way, a specific cooking is needed, dedicated spaces for the kitchen are needed too in opposition to our technical solution...so you have to find electrical appliances; we created specific appliances and devices, in our shops if you buy a rice tin and keep it in the pantry is done; there they have rice keepers of 50 kilos that needs to be kept at a precise humidity and you have to find solutions for this...”(S)</i></p>			
Singapore		<p><i>“We are reflecting on Singapore, to establish an office that supports the orders collection, the sale point assistance for all the Asiatic south-east... “because our product, every kitchen that we do is different from an other, it’s an extremely customized product.” (V)</i></p>	<p><i>“In the case of investor, such as Singapore, that invest in spaces of branded products, there we adapt because we know we have to be commercial.” (M)</i></p>	
Africa	<p><i>“Knowing that exporting wood in Africa is not possible due to the fact that taxes are very high, for me the technological innovation is exactly in introducing aluminium structures for some products. Adaptation from one hand and innovation for us has been referred to Africa that introduced this type of development. In North Africa, South Africa and China importation is complicated so to be faster and have less delivery problem we make aluminium structures.. (M)”</i></p>		<p><i>“In Africa a distribution network doesn’t exist, I need a Lebanese who create a network and the contact. He has an interest and we have to leave the 50% of deal on the markup.” (M)</i></p>	

Japan/ Brasil		<p><i>“ The consciousness of consumer it’s high and objections come from Japan because this product doesn’t meet the target (chair with air bubble). For them it is important to know why and if you have a tension to improvement. Till the easier solution and they don’t reply anymore because they know it is the best result possible. The Japanese market makes you implement a process innovation. They force you to bring this improvements and if you can you use them in other places.”(M)</i></p>	<p><i>In countries such as Japan and Brasil – that are extremely closed markets with entry boundries duties or a controller distribution- here we can evaluate licensed collaborations of product or brand, but we haven’t acted yet.”(V)</i></p>	
------------------	--	--	---	--

Conclusion

The relationship between innovation and internationalisation, usually studied with the aim, above all, of understanding its effects on business performance, is still an open question in the international literature. Several studies pointed out the existence of a complex relationship, influenced by different firm, industry and market-specific factors. In this framework, our study contributes by integrating into the literature a deeper view of the multifaceted phenomena of innovation, internationalisation and their complex relationship, as well as their capability of influencing business performance, in a specific context, that is, Italian furniture companies.

First of all, our findings highlight that interviewed managers do in fact tend to consider innovation from a holistic perspective. Indeed, by avoiding a narrow view of innovation, companies can obtain economic and competitive success in their specific sector. In this way, acting with regard to the key dimensions of innovation, a firm can create new value for customers.

Second, our results suggest that the relationship is very complex and mutually dependent. Furthermore, our case studies imply that the relationship between innovation and internationalisation can be better explained through in depth analysis of the different specific local contexts. In other words, from our analysis the critical role of the market orientation of a firm comes to light and leads one to consider the question of standardisation versus adaptation. Indeed, on the one hand, the need for adaptation to a specific foreign context could lead to an innovation, repeatable in turn in different markets. On the other hand, innovation, in all its dimensions, could facilitate the internationalisation process, allowing greater effectiveness and efficiency when competing in specific foreign markets. The relationship between innovation and performance cannot be understood without taking into consideration the internationalisation process.

Since the relationship between innovation, internationalisation and business performance is gaining relevance from both the academic and managerial points of view, it would be useful to do further research by also considering other firms from different industries. Future studies should more deeply investigate market-oriented attitudes and behaviours of companies, as well as the different phases of the internationalisation process. After qualitative study, a quantitative approach could be useful to better understand how that relationship appears in a larger sample of companies.

References

- [1] Abramovitz, M. (1986) Catching Up, Forging Ahead, and Falling Behind. *Journal of Economic History*, 46, 386-406.
- [2] Adams, J.D. & Jaffe, A.B. (1996). Bounding the effects of R&D: An investigation using matched establishment-firm data. *Rand Journal of Economics*, 27(4), 700-721.
- [3] Agarwal, S., Erramill, M. and Dev, C. (2003). Market orientation and performance in service firms: role of innovation. *Journal of Service Marketing*, 17(1), 62-82.
- [4] Alon, I., Jaffe, E. & Vianelli, D. (2013). *Global Marketing. Contemporary Theory, Practice, and Cases*. New York: McGraw-Hill.
- [5] Bhaskaran, S. (2006). Incremental Innovation and Business Performance: Small and Medium-Size Food Enterprises in a Concentrated Industry Environment. *Journal of Small Business Management*. 44(1), 64-80.
- [6] Bortoluzzi, G., de Luca, P., Venier, F., & Balboni, B. (2014). Innovation Scope And The Performance Of The Firm. Empirical evidence From An Italian Wine Cluster. In Christiansen, B. (Ed.). *Handbook of Research on Global Business Opportunities*. Hershey, PA, USA: IGI Global (in press).
- [7] Cassiman, B. & Golovko, E. (2011). Innovation and Internationalization Through Exports. *Journal of International Business Studies*. 42 (1), 56-75.
- [8] Chesbrough, H. (2007). Business model innovation: it's not just about technology anymore. *Strategy & Leadership*, 35(6), 12-17.
- [9] Cooper, R. G. and Kleinschmidt, E. J. (1995). Benchmarking the firm's critical success factors in new product development. *The Journal of Product Innovation Management*, 12(5): 374-392.
- [10] Dahlman, C.J., Ross-Larson, B., & Westphal, L. (1987) Managing technological development. Lessons from the newly industrialized countries. *World Development* (15), 759-775.
- [11] Damanpour, F. (1991). Organizational innovation: a meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34 (3), 555-590.
- [12] de Luca & Pegan, 2013
- [13] Doz, Y., & Kosonen, M. (2008). The dynamics of strategic agility: Nokia's rollercoaster experience. *California Management Review*, 50(3).
- [14] Doz, Y. L., & Kosonen, M. (2010). Embedding Strategic Agility. *Long Range Planning*, 43(2-3), 370-382.
- [15] Dubois, A., & Gadde, L.E. (2002). Systematic combining: an abductive approach to case research. *Journal of Business Research* (55), 553- 560.

(Please, contact the authors for the full list of references).

Creative cities: emerging Italian cases

Maria Della Lucia, maria.dellalucia@unitn.it
University of Trento, Italy

Creative cities: emerging Italian cases

Abstract

In post-industrial societies, culture is frequently deployed to innovate traditional sectors and their outputs through the injection of creativity and knowledge into the urban system. The term *creative city* identifies both the source of creativity and the many processes which use it as a driver of sustainable development and renewal. In Italy the dynamic between heritage resources and policies, both contributing to the development of creative cities, usually produces traditional development models based on cultural tourism. Trento is an Alpine city which is bucking this general trend and exhibits many culture-led development paths and *smart specializations*, i.e. forms of hybridization between local heritage and the creative economy. However Trento cannot yet be considered a fully fledged creative city since it has still not articulated a shared, informed and organic development plan focused on culture-led processes. A greater awareness of how culture can be linked with other sectors – tourism included – and the creation of a governance system which fosters and manages cross-sectoral fertilizations and social innovations are required before Trento can really be described as a creative city.

1. Introduction

The combination of the knowledge (Scott, 2010), the experience (Pine & Gilmore, 1999) and the digital economy (Zuboff & Maxmin, 2002; Rifkin, 2011) that shapes post-industrial societies, has made *intangibles* strategic assets for sustainable development and competitive advantage (Sedita & Paiola, 2009). Knowledge-based resources and symbolic components in production meet complex individual personalities and evolved motivations thereby transforming consumption into experience and learning patterns defined for, and with the participation of, the user. The Internet generation has defined a new capitalism that acts as a multiplier of these processes of dematerialization and symbolic value creation (Scott, 2000). This “distributed capitalism” (Rifkin, 2011) allows organizations and individuals to interact widely, to participate in virtual communities (Funilkul and Chutimaskul, 2009) in which interactions are not mediated by the market alone (Potts et al. 2008) and to exchange and co-create knowledge-based resources on a global scale (Cooke and Buckley, 2008). The potential of technological infrastructure (its ubiquity and interactivity) combined with the non-rivalry and non-excludability of knowledge-based resources are increasingly blurring the boundaries between supply and demand in the co-creation of intangibles. The activities in which they assume economic and social value for individuals, enterprises and places’ growth and well-being are thus multiplying (Sacco, 2011; Sacco et al., 2013).

Culture is an intangible at the heart of both place regeneration and the competitiveness of post-industrial societies, which they requalify as “mixed economies of leisure, culture and creativity” (Mommas, 2004, p. 507). It is a sector – the culture and creative industry (KEA, 2006); an immaterial input into non-cultural sectors and productive clusters – in which it plays a part in the sense making of products (Cooke & Lazzarretti, 2008; Paiola & Sedita, 2009; Sacco & Crociata, 2013) and brands (Papadopoulos, 2002; Cattaneo, Guerini & Uslenghi, 2006); a strategic component of the tourism industry (Richards & Wilson 2007, Richards & Marques, 2012; Golinelli, 2012, Richards, 2011, 2013) and an “artifact” whose consumption increases human capital (Florida, 2002), social identity and cohesion (Tavano Blessi, Tremblay, Sandri & Pilati, 2012).

The common denominator of these culture-led development paths is the ability of culture to link creativity and knowledge – generated by different combinations of personal predisposition and ability with social context – with innovation (KEA, 2009) (Smart Specialization Platform, 2012). The processes that innovate traditional sectors through their hybridization with the creative economy have been dubbed *smart specializations* (Smart Specialization Platform, 2012) and *creative tourism* is an important manifestation of these (Richards, 2011, 2013). They inject creativity and knowledge into local economies and their outputs and promote structural change and new balances which allow emerging competitive scenarios to be dealt with more effectively (Dwyer, Edwards, Mistilis, Roman & Scott, 2009). These culture-led innovations naturally occur most frequently in cities (Castells, 2004). The urban contexts which use such innovations as drivers of development and renewal have been identified as *creative cities* (Landry & Bianchini, 1995). Their development is place specific and relies on the combining of urban heritage resources and traditions of production with innovative policy-making (Penco, 2012). In Italy policies around heritage resources usually produce traditional

development models based on cultural tourism and there is a great deal of skepticism about the hybridization of productive traditions with the creative economy (CSES, 2010; Sacco, 2011).

An examination of case studies which provide empirical evidence of the many ways in which culture catalyzes urban regeneration may help to overcome these obstacles. The first part of this paper discusses both the creative city, allowing us to describe the processes of culture-led urban development, and creative tourism – one of the main forms of smart specialization present in the creative city. These categories are used to analyze the nature of the creative city of Trento, an Italian Alpine city that has become an experimental lab for many forms of the creative economy and where both good practice and challenges are evident.

2. Theoretical Background

2.1 Creative cities and their development factors

Cities stimulate creativity and knowledge – the intangibles that act as the most powerful drivers of development in post-industrial societies (Florida, 2002; Caroli, 2004; Castells, 2004; Hutton, 2009; Scott, 2010; Cappellin, Ferlino & Rizzi, 2012). The term *creative city* (Landry and Bianchini, 1995) identifies both the source of creativity and the many processes which use it as a driver of urban development and renewal.

Urban concentrations of *talent* (Florida, 2002) and businesses specialized in the *cultural and creative industries* (Hall, 2000) are seen as creativity sources. Urban development driven by the creative class originates in individuals' education, talent and vocations, in combination with their occupations in knowledge-intensive sectors. Urban amenities play a strategic role in attracting the creative class to cities (Clark, Lloyd, Wong & Jain, 2002; Florida, 2002; Glaeser, 2005). However, the causal link between amenities, talents, and urban development has never been proven rigorously and has, in fact, been widely questioned (Peck, 2005; Storper & Scott, 2009). An alternative theory is that innovations generated by the interaction between the cultural and creative industries and other economic activities result in urban development (KEA, 2009; Scott, 2006). The creativity that arises from these sources produces knowledge and technology-intensive outputs (Trullen and Boix, 2002) and artifacts that meet the highly evolved experiential needs of contemporary societies (Hubbard, 2006). These processes define the creative city as – in the first case – a *knowledge city* and – in the second – a *consumer city* (Penco, 2012). In the knowledge city, knowledge and technology-intensive businesses develop synergies and interdependencies with other companies involved in the knowledge supply chain at local and global levels (including research and higher education centers, universities, public institutions) (Castells, 2004). In the consumer city, the supply of advanced immaterial products and leisure opportunities from cultural institutions, organizations and associations, and from the cultural and creative industries and service sector, results from the dense urban population and the flexibility of post-industrial socio-economic structures. Consumer cities are, in fact, also called *cities of leisure* and *entertainment machines* (Clark et al., 2002). Creative cities – in various ways and to varying degrees – are both consumer and knowledge cities (Penco, 2012), since they provide the right conditions for sustainable urban development (Sacco, 2011). An exclusively consumer city is likely to impoverish high added value urban services, to attract less investment and talent and to undermine the integrity of the cultural heritage itself due to the intensity of its use (e.g. tourist pressure), thus affecting the quality of cultural consumption and of urban life in general.

The development of creative cities is place specific and relies on the combining of urban heritage resources and traditions of production with innovative policy-making (Penco, 2012). A city's history, cultural capital and creative institutions define the natural endowment that enables it to pursue culture-led development paths (Scott, 2006). Its history bequeaths both a tangible and an intangible cultural heritage – artistic-cultural and professional-productive (Hall, 2004). Over time, networks of interdependencies and the trade within and between urban communities of creative workers produce a cultural capital, one which facilitates knowledge sharing and stimulates creativity (Inkpen & Tsang, 2005). The scientific and cultural institutions based in the city provide both formal and informal spaces for social interaction (Hutton, 2009; Cohendet, Grandadama & Simon, 2010; Tavano Blessi, Tremblay, Sandri & Pilati, 2012) and host and disseminate these creative processes. Their training and educational programs and their involvement in research and knowledge transfer foster the production and reproduction of creative

urban practices and the development of other scientific and cultural organizations and cultural and creative sectors (Leslie & Rantisi, 2006).

Beginning with these local heritage resources, urban regeneration policies enhance the strengths of existing urban development models, overcome their weaknesses and equip them to face the challenges of emerging scenarios (Dwyer, Edwards, Mistilis, Roman & Scott, 2009). Many of the urban regeneration policies are aimed at transforming the urban “genetic code” because the absence of a sufficiently strong cultural heritage is one of the main problems faced by these cities. The public sector can promote the development of knowledge cities by encouraging research, innovation and the establishment of knowledge and technology-intensive enterprises/organizations, and investing in knowledge centers and university buildings and the development of networks with international research hubs. Interventions to create consumer cities include: tourism and cultural policies, the development of innovative and sustainable residential complexes, the renovation of disused industrial areas and their use as cultural spaces, the investment in iconic architectural buildings that combine research, educational and cultural functions, service digitalization, the organization of large events, the connection between the tourism industry and the cultural and creative industries, the upgrading of amenities and the creation of cultural districts or clusters.

2.2 Creative tourism as a smart specialization

Creative tourism (Richards, 2011 and 2013) integrates and hybridizes culture and tourism, thus fostering the dual identities of consumer and knowledge city. Creative tourism was first defined by Richards and Raymond (2000, p. 18) as “*tourism which offers visitors the opportunity to develop their creative potential through active participation in courses and learning experiences which are characteristic of the holiday destination where they are undertaken*”. This advanced form of cultural tourism enhances the intangible components of culture to meet local communities’ needs for cultural and creative expression and contemporary visitors’ demands for meaning and authentic experience. The co-creation of meanings and tourist experiences through the involvement of visitors in the daily life and culture of a place allows people to enhance their skills, develop their creative potential, express their identity and pursue their own welfare (D’Auria, 2009). This idea is embodied in experiences that allow the visitor to “meet the locals” or “live like a local”. Creative tourism is therefore increasingly conceived as a relationship between people who are seeking more engaging and active creative experiences; however, it can also involve less active forms of creativity, such as ‘taster’ experiences, which are now enjoyed by much larger numbers of visitors (Richards, 2011).

This innovative form of tourism is still only a small part of cultural tourism but it can help to overcome a lack of tangible cultural capital and the serial reproduction of culture and mass cultural tourism (Richards & Wilson, 2006). A city’s ability to transform its urban cultural endowment into assets that have a distinctive symbolic value thus becomes crucial for its competitiveness, as does its capacity to use these assets to attract sustainable tourism segments (Franch, Martini, Buffa & Parisi, 2008; OECD, 2009). Creative tourism may assume many different forms (Richards & Wilson, 2007), within three broad, interconnected categories (Richards, 2013): the *cultural events* or creative performances typical of advanced tourism products; *clusters or cultural districts* which are an expression of creative spaces; *creative strategies* and policies that promote the hybridization of culture with place specific resources. Accordingly, creative tourism may either be seen as a culture and creative industry (Bagwell, 2009), or as an important sector for smart specializations within the creative economy (Andersson and Thomsen, 2008).

3. Case study and methodology

Italy’s cultural heritage and creative potential should put culture at the centre of national and local development policies, including urban policies (Sacco, 2012). However, in Italy policies around heritage resources have led to traditional development models in which the generation of value through culture is focused on cultural tourism and local products (Sacco, 2012). Italy has a rich artistic and cultural heritage and culture plays a fundamental role in the shaping of the national identity and brand image as a cultural tourism destination (Golinelli, 2012). Italy has one of the largest cultural and creative industries in Europe, both in terms of GDP and numbers employed in the sector, and some of the cultural and creative sectors enjoy a strong international position (Santagata, 2009; Unioncamere & Symbola, 2011). Although traditional cultural tourism promises development opportunities for both the great art cities

and smaller urban centers (ONT, 2009; TCI, 2009; BIT, 2010), the sustainability and competitiveness of these cities would undoubtedly benefit from complementarities with research and innovation, education and social inclusion policies and forms of smart specialization between culture and traditional sectors (Sacco, 2012).

The city of Trento, provincial capital of the autonomous province of Trento in the northeast of Italy, is bucking the general national trend of small and medium-sized cities, which focus on cultural tourism as their main lever for urban development (Lazzeretti, Boix, & Capone, 2008; Capone & Cinti, 2009). In fact, Trento (pop. 115,000) is among the few urban systems experimenting with the combination of traditional and new culture-led development paths, based on knowledge and innovation. This case is interesting for many reasons. Firstly, cities specialized both in the cultural and creative sectors, like Milan and Turin, are usually large and have extensive heritage resources; secondly, although the province of Trento is a competitive tourist destination, cultural tourism in Trento has only developed within the last ten years; thirdly, Trentino has invested in its culture infrastructure as a driver of sustainable local development rather than as a mere tourism marketing tool (Sacco, 2012).

A single case study design (Yin, 2003) is used to provide insights into the numerous culture-led urban development paths and the place specific conditions which influence and promote their realization. The particular nature of Trento's status as a creative city and the forms of smart specialization in the city are analyzed with reference to research on the evolution of Trentino's development model (Marcantoni, Postal & Toniatti, 2011), desk analysis of the sectoral policies of the municipality of Trento over the last 15 years (Strategic Plan, Tourism and Cultural Plan) and in-depth interviews with key players in the area.

4. Main results

4.1 Features of Trento as a *creative city*

Trento has developed multiple value creation paths based on knowledge and culture, which qualify it both as a *knowledge* and as a *consumer city* (Table 1). Trento's status as a knowledge city is due to its excellent network of scientific and technological research and higher education bodies, whose standing is recognized at both the Italian and the European level. Three public institutions have been involved in the development of this system: the FBK Foundation, the Mach Foundation and the University of Trento. The network attracts skilled human capital, students, innovative businesses, resources and investment from all over Italy and abroad and the local area benefits from the research, training and knowledge transfer carried out by these institutions. Trento, for example, is the only Italian partner in the European Institute for Innovation and Technology and the city's collaboration with this Institute's European ICT research and industry networks has led to other international centers of research and higher education taking off here, and the consequent transfer of technology to locally based companies. The knowledge workers employed in this research network account for a major share of the city's demand for immaterial consumption, due to their high level of education and, often, their higher disposable income. In the academic year 2012-2013, for example, the University expressed the consumer demand of more than 1,200 people – professors, researchers and technical and administrative staff – in addition to more than 16,000 students.

Trento owes its consumer city status to its cultural and artistic heritage, both religious and secular, and to the concentration in the city of cultural and creative industries (e.g. publishing and audiovisual) and the main cultural institutions and associations of the province. These combine popular culture and local tradition with innovation and the contemporary, the hosting of cultural events and the offering of services and amenities. Residents, including knowledge workers, students, commuters; external users of advanced services (commercial, health) and leisure and business tourists consume the services and cultural activities of the city. The investments of the 1980s in the restoration of historic buildings to house the cities' libraries, important collections of modern and contemporary art, and science museums, were intended to provide local communities with educational and leisure opportunities. Only later did they become tourism marketing tools and now, twenty years later, this choice has been reinforced by sizeable provincial investments in two iconic museums: the Mart, a gallery of modern and contemporary art, and the Muse, a science museum.

TABLE 1: FEATURES OF TRENTO AS A *CREATIVE CITY*

Creative city	Features
<i>Knowledge city</i>	<ul style="list-style-type: none"> • Excellent scientific and technological research and higher education network (FBK Foundation, the Mach Foundation, the University of Trento, Fiat Research centre, Create-Net, Irvapp, GraphiTech, Celct, COSBI, CIBIO) • Attraction of skilled human capital, students, innovative businesses, resources and investment (European Institute for Innovation and Technology, Trento RISE, CNR Centres) • Creative class: Knowledge workers employed in this system
<i>Consumer city</i>	<ul style="list-style-type: none"> • Significant religious, secular, artistic and cultural heritage situated between Central Europe and the Mediterranean world <p>Cultural institutions and associations which combine popular culture and local tradition with innovation and the contemporary (Folk Museums, Museum of Buonconsiglio Castle, Foundation of Historic Museums of Trentino, Mart - gallery of modern and contemporary art - and the Muse - science museum)</p> <ul style="list-style-type: none"> • Cultural and creative industries (publishing and audiovisual) • Hallmark events, services and amenities • Creative class: knowledge workers, public administration employees, business and leisure tourists, residents

4.2 Forms of smart specialization in Trento

The forms of smart specialization between culture and other sectors found in Trento mainly involve creative tourism and creative connections and hybridizations between culture and the traditional small industries/craft. They are generated by independent business initiatives or promoted by provincial and municipal policies (Table 2).

All three forms of creative tourism are evident in Trento – *creative strategies, creative spaces and events*. The provincial investment in the Muse (<http://www.muse.it/>), which opened in July 2013, is a creative strategy designed to enable and encourage a virtuous, synergistic relationship between culture, knowledge and tourism. The province’s oldest cultural organization connected to its Alpine identity has been transformed into a modern, eco-sustainable architectural structure which combines the traditional roles of a science museum with modern functions as a research center, including scientific and didactic/edutainment laboratories. Almost one year after its opening it had already established itself as an important tourist attraction, having received over 500,000 visitors from Italy and abroad. The museum is located in an area of the city where major urban regeneration projects are underway and promises to become both the mainstay and an incubator of an “Evolved Cultural District” (Sacco, 2010). This ongoing project involving the provincial cities of Trento and Rovereto is intended to foster a creative space that connects the cities’ different culture-led development paths and encourages smart specializations between culture, tourism and the economy in order to innovate urban development. The district leverages urban heritage resources and cultural investments and relies on a participatory approach involving institutional actors and the representatives of various sectors – culture, education, tourism, science and technology industry, institutions and banking foundations, etc. – in the development and implementation of the project. The hallmark cultural events hosted in Trento are the creative achievements of the most dynamic sectors of the cultural and creative industries in the area (publishing and film). The strong symbolic value of the Festival of Economics (<http://2014.festivaleconomia.eu/>) – run for the eighth successive year in 2014 in some of the city’s most beautiful buildings and squares – lies in its being a forum for the innovative use of communications technologies and publishing to disseminate international expert debate on major economic and societal issues to a wide audience. The valence of the Mountain Film Festival (<http://www.trentofestival.it/>) – now in its 62nd year – derives from its use of audiovisual media, film and writing to bring the scientific and cultural debate

around mountains and sustainability. As annual events, these festivals are gradually becoming so closely associated with Trento’s urban identities that they have become drivers for the image-making and urban marketing and branding of Trento as a knowledge and culture city.

Smart specializations between culture and traditional small industries involve both the use of the latter’s products and services in the area’s institutions and cultural associations and the use of culture to innovate the offer of traditional industries. On the one hand, the products of small industry are used in cultural processes – e.g. specialized local companies are involved in the construction of university buildings and major scientific and cultural infrastructure projects such as Muse, in setting up exhibitions and running events. Traditional industrialists’ responses to the specific needs of institutions and creative associations can also stimulate the development of partnerships to design and develop new specialist products for culture – e.g. innovative systems for the conservation and restoration of cultural artifacts, the culture-sensitive restoration of buildings, systems for the protection and sustainable management of cultural sites. On the other hand, culture is a creative input in the development of new specialist craft products and services, increasing their symbolic, aesthetic and emotional value through their connection with a particular place. It also encourages the creation of new businesses, either spin-offs of the university’s cultural bodies or private initiatives – e.g. arts and crafts, designer products for the museum bookshop, updating the packaging and publicizing of food and wine products through collaboration with designers. The study that Trentino Sviluppo – the provincial agency that promotes local sustainable development through sectoral integration and innovation – has just carried out on the connections between culture and craft, shows that the economic and occupational impact of cultural investments on the turnover of the province’s small traditional industries is quite significant. The Agency aims to foster initiatives that support the exchange of ideas and the development of joint projects between public institutions, scientific research bodies, technological innovators and institutions and businesses in the cultural and creative industries. These initiatives include “the craft bid” – an event intended to foster links between institutions and businesses and awareness raising meetings for companies who want to collaborate with the world of culture and technical workshops with artists.

TABLE 2: SMART SPECIALIZATION IN TRENTO

<p>Culture and Tourism (Creative Tourism)</p>	<ul style="list-style-type: none"> • Creative strategy/policy: Muse - science museum- • Creative place: Project to develop a culture and creative cluster incorporating the cities of Trento and Rovereto • Creative events: Hallmark events (Festival of Economics, Mountain Film Festival) organized in partnership with local culture and creative industries (advertising, film, video, multimedia)
<p>Culture and traditional small industries/craft ("Creative craft")</p>	<ul style="list-style-type: none"> • Handicraft sectors participating in the culture value chain • Innovation of the handicraft offer through culture and creativity and creation of new businesses as spin-offs from universities and cultural institutions or private initiatives

5. Discussion

Trento’s dual status as both a knowledge and consumer city is the result of place specific conditions, which combine local heritage resources and imaginative development policies. The history of this Alpine city, a result of its geographical position on the border between Central Europe and the Mediterranean world, has produced a significant – both religious and secular – artistic and cultural heritage. Its openness to intercultural exchange and long traditions of self-government have shaped the city and its services, networks of cultural and research institutions and standard of living. This legacy has been enhanced by innovative policies, both provincial and municipal, which have had a

critical role in anticipating post-industrial development processes based on culture and knowledge. Since the 1960s the Province of Trento has invested – singlehandedly, and taking advantage of its autonomous status – in research facilities and the training, retention and attraction of qualified human resources. The province’s far-sighted investment laid the foundation for a knowledge economy which has led, over the years, to the gradual fertilization of the Alpine economy with the post-industrial economy.

In the last decade, the municipality of Trento has reinforced this knowledge-based urban development driven by provincial policies and has embarked on its requalification as a cultural city in order to exploit its rich historical urban legacy through innovative policies and sizeable – for a small city – investments. The city government’s main tools have been designed to use a participatory approach to urban development which results in the gradual formation of a developed concept of tourism, culture and tourism and cultural policies. The Strategic Plan 2001-2010 marked the beginning of a municipal planning logic of urban development that leverages sectoral, institutional and social interdependencies. The 2009 Tourism Plan has enhanced the tangible and intangible cultural heritage of the city through the lever of cultural tourism. The 2013 Culture Policy, rather than just considering the relationship between culture and tourism, has developed a transverse cultural policy which integrates innovative urban development and sustainability (Sacco, 2010). The smart specializations between culture and traditional small industries and between culture and tourism are signs of real progress in this direction. As at the provincial level, Trento’s resources and design skills were crucial to defining these pioneering – in the context of a small Alpine city – development policies.

5. Conclusion

The case of the city of Trento clearly illustrates the diverse ways in which culture can drive urban development and transformation and how the scale and the nature of these changes are determined by the combining of cultural heritage resources and policies. The latter aim at enhancing existing resources and / or helping to overcome their lack through sizeable and / or innovative investments. In Trento provincial and municipal policies, rather than the city’s intrinsic cultural heritage resources, played, and still play, a crucial role in sustaining the knowledge and culture economy. Due to these policies, Trento exhibits many of the features of both a knowledge city and a consumer city and is an experimental lab for many forms of smart specialization, in particular of best practices in creative tourism and emerging initiatives in “creative crafts”. These hybridizations between culture and other sectors sustain Trento’s dual nature as both consumer and knowledge city. The demand for intangible and experiential consumption supports the development of innovative entrepreneurship specialized in the cultural and creative industries and these industries complement and strengthen the city’s public institutions of knowledge and culture.

Although Trento already exhibits many of the features of a creative city, its transformation continues. The coexistence of diverse culture-led development paths confirms the studies on the Italian creative economy which show Trento to be a rare urban system specialized in both the cultural and creative sectors (Lazzaretti, Capone, & Cinti, 2008); these paths, however, have not yet been integrated. They are the result of the accumulation and subsequent chance combination of actions on the part of the provincial and municipal governments. A shared, informed, organic development plan to draw together these interactions and hybridizations between culture, knowledge and other sectors, tourism included, has not yet been put in place.

The development of such a plan within a fragmented institutional, sectoral and social urban context depends on the vision and power of the value-adding partnerships and public and private networks engaged in the process of culture-led urban regeneration at both the provincial and urban level. This complex situation raises important issues: how can the awareness of the opportunities to create value by connecting culture, economy and society be increased? How can social and sectoral interactions be encouraged to promote hybridizations between culture and creative activities, tourism and other sectors? What might institutions in research, culture and education stimulate the development of a productive fabric in culture and creative sectors? Which levers are needed to integrate heritage, knowledge, culture and tourism in a creative urban identity? What might the impact of culture-led urban regeneration on urban image and brand building be? Given that the province of Trentino as a tourist destination does not currently include culture or knowledge among its main assets, how can the relationship between the brands of the city and the province be managed?

These and other issues can be investigated in future research addressing interactive and multilevel governance systems (Kooiman, Bavinck, Chuenpagdee, Mahon, Pullin, 2008; Go & Trunfio, 2011) which facilitate and manage both cross-fertilization between sectors and social innovation by building on social capital (Inkpen and Tsang, 2005). Social capital is crucial because it underpins stakeholder inclusion, engagement and capacity building in culture-led urban regeneration and branding by taking a place specific perspective. The joint management of public resources in knowledge, culture and tourism areas is closely related to the creation of a new system of governance. The reduction in local authority budgets – including that of Trento – caused by the economic and financial crisis, means that resources and investments must be focused on projects with maximum impact on the entire urban system and its development (economic, social, image, etc.). It is also vital to identify mechanisms for innovative public-private financing (Della Lucia, 2013). Finally, in order to achieve the status of *creative city*, Trento still has many challenges – economic, cultural, civic and of place governance – to meet.

References

- [1] Andersson, L., & Thomsen B. S. (2008). Performative experiments and cultural replanning – Recapturing the spectacle of the city. *Nordic Journal of Architectural Research*, 20(1), 39-51.
- [2] Bagwell, S. (2009). Creative cluster and city growth. *Creative Industries Journal*, 1(1), 31-46.
- [3] Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, 13(4), 544-559, <http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf>.
- [4] Becchi, A. (2007). Le città del consumo oggi. *Scienze regionali*, 3(3), 113-136.
- [5] BIT (2010). *Il turismo culturale: nuovi orientamenti di sviluppo economico-sociale*. Roma: Direzione Generale per la valorizzazione del patrimonio culturale.
- [6] Capone, F., & Cinti, T. (2009). La creatività tra specializzazione e diversificazione del territorio: i sistemi creativi in Italia. In Sedita, S.R. & Paiola, M. (eds), *Il management della creatività. Reti, comunità e territori*. Roma: Carrocci.
- [7] Cappellin, R., Ferlaino, F., & Rizzi P. (2012). *La città nell'economia della conoscenza*. Franco Angeli: Milano.
- [8] Caroli, M. G. (2004). *I cluster urbani. Modelli internazionali, dinamiche economiche, politiche di sviluppo*. Milano: Il Sole 24 Ore.
- [9] Cattaneo, E., Guerini, C., & Uslenghi, A. (2006). *Effetto country. Origini e mercati internazionali. Conta davvero l'origine geografica nella promozione internazionale dell'offerta italiana?*. Milano: EGEA.
- [10] Castells, M. (2004). *La città delle reti*. Venezia: Marsilio.
- [11] Clark, T. N., Lloyd, R., Wong, K. K., & Jain, P. (2002). Amenities drive urban growth. *Journal of Urban Affairs*, 24(5), 493-515.
- [12] Cohendet, P., Grandadama, D., & Simon L. (2010). The anatomy of the creative city. *Industry and Innovation*, 17(1), 91-111.
- [13] Cooke, M., & Buckley, N. (2008). Web 2.0, social networks and the future of market research. *International Journal of Market Research*, 50(2), 267-292.
- [14] Cooke, P., & Lazeretti, L. (eds) (2008). *Creative cities, cultural clusters and local economic development*. Cheltenham: Edward Elgar.
- [15] CSES, 2010. *Study on the Contribution of Culture to Local and Regional Development – Evidence from the Structural Funds*. Brussels: European Commission, http://ec.europa.eu/culture/key-documents/contribution-of-culture-to-local-and-regional-development_en.htm (ultimo accesso 04/03/2014).
- [16] D'Auria, A. (2009). Urban cultural tourism: Creative approaches for heritage-based sustainable development. *International Journal of Sustainable Development*, 12(2/3), 275-289.
- [17] Della Lucia, M. (2013). *Cultura e sviluppo locale nell'economia della conoscenza. Politiche e strumenti di sviluppo urbano*. Padova: CEDAM.
- [18] Dwyer, L., Edwards, D., Mistilis, N., Roman, C., & Scott, N. (2009). Destination and enterprise management for a tourism future. *Tourism Management*, 30(1), 63-74.
- [19] European Commission (2010). *Green Paper on Unlocking the potential of cultural and creative industries*. Brussels: European Commission.
- [20] Florida, R. (2002). *The rise of the creative class*. New York: Basic Books.
- [21] Franch M., Martini U., Buffa F., Parisi G. (2008). 4 L tourism (landscape, leisure, learning and limit): Responding to new alpine destinations in a sustainable way. *Tourism Review*, 63(1), 4-14.
- [22] Funilkul S., & Chutimaskul, W. (2009). The framework for sustainable eDemocracy development. *Transforming Government: People, Process and Policy*, 3(1), 16-31.
- [23] Glaeser, E. L. (2005). *Smart Growth: Education, Skilled Workers and the Future of Cold-Weather Cities*. Cambridge: Harvard University.
- [24] Go, F.M., & Trunfio, M. (2011). Twenty Years of Tourism Development Research: A Strategic Market Forces Perspective. In Keller, P. & Bieger, T. (eds), *Tourism Development after the Crisis*. Sanct Gallen: AIEST.
- [25] Golinelli, G. M. (ed) (2012). *Patrimonio culturale e creazione di valore*. Padova: CEDAM.
- [26] Hall, P. (2000). Creative cities and economic development. *Urban Studies*, 37(4), 639-649.

- [27] Hall, P. (2004). Creativity, Culture, Knowledge and the City. *Built Environment*, 30(3): 256-258.
- [28] Hubbard, P. (2006). *City*. London: Routledge.
- [29] Hutton, T. A. (2009). *The new economy of the inner city: restructuring, regeneration and dislocation in the 21st century metropolis*. London: Routledge.
- [30] Inkpen, A. C., & Tsang, E. W. K. (2005). Social Capital, Networks, and Knowledge Transfer. *Academy of Management Review*, 30, 146-165.
- [31] KEA (2009). *The impact of culture on creativity*. Brussels: Directorate-General for Education and Culture.
- [32] KEA (2012). *Measuring economic impact of CCIs policies. How to justify investment in cultural and creative assets*. Brussels: European Commission.
- [33] Kooiman, J., Bavinck, M., Chuenpagdee, R., Mahon, R., & Pullin R. (2008). Interactive Governance and Governability: An Introduction. *The Journal of Transdisciplinary Environmental Studies*, 7(1), 1-11.
- [34] Landry, C., & Bianchini, F. (1995). *The Creative City*. London: Demos.
- [35] Lazzeretti, L., Boix, B., & Capone, F. (2008). Do Creative Industries Cluster? Mapping Creative Local Production Systems in Italy and Spain. *Industry & Innovation*, 15(5), 549-567.
- [36] Leslie, D.E., & Rantisi, N. M. (2006). Governing the Design Economy in Montréal, Canada. *Urban Affairs Review*, 41(3), 309-337.
- [37] Marcantoni, M., Postal, G. E., & Toniatti, R. (2011). *Quarant'anni di autonomia. Il Trentino del Secondo Statuto (1971-2011). Volume II*. Milano: Franco Angeli.
- [38] O'Reilly, T. (2006). *Web 2.0 compact definition: Trying again*. <http://radar.oreilly.com/2006/12/web-20-compact-definition-tryi.html>
- [39] OECD (2009). *The impact of culture on tourism*. Paris: OECD.
- [40] ONT (2009). *Il turismo delle città d'arte: caratteristiche, tendenze e strategie di sviluppo*. Firenze: Mercury.
- [41] Papadopoulos, N. G. (2002). *Does "country-of-origin" matter?. Some findings from a cross-cultural study of consumer views about foreign products*. Cambridge: Marketing Science Institute.
- [42] Peck, J. (2005). Struggling with the Creative Class. *International Journal of Urban and Regional Research*, 29(4), 740-770.
- [43] Pine, B. J., & Gilmore, J. H. (1999). *The Experience Economy*. Boston: Harvard Business School Press.
- [44] Potts, J. D., Cunningham, S. D., Hartley, J., & Ormerod, P. (2008). Social network markets: A new definition of the creative industries. *Journal of Cultural Economics*, 32(3), 167-185.
- [45] Power, D., & Nielsen, T. (2010). *Priority Sector Report: Creative and Cultural Industries*. Brussels Europe: Innova Initiative, European Commission.
- [46] Richards, G. (2011). Creativity and tourism: The state of the art. *Annals of Tourism Research*, 38(4), 1225-1253.
- [47] Richards, G. (2013). Creativity and tourism in the city. *Current issue in Tourism*, 10.1080/13683500.2013.783794.
- [48] Richards, G., & Raymond, C. (2000). Creative tourism. *ATLAS News*, 23, 16-20.
- [49] Richards, G., & Wilson, J. (2006). Developing creativity in tourist experiences: A solution to the serial reproduction of culture?. *Tourism Management*, 27, 1408-1413.
- [50] Richards, G., & Wilson, J. (eds) (2007). *Tourism, creativity and development*. London: Routledge.
- [51] Richards, G., & Marques, L. (2012). Exploring Creative Tourism: Editors Introduction. *Special Issue of the Journal of Tourism Consumption and Practice*, 4(2), 1-11.
- [52] Rifkin, J. (2000). *The Age of Access. The New Culture of Hypercapitalism. Where all of Life is a Paid-For Experience*. New York: Penguin Putnam.
- [53] Rifkin, G. (2011). *The Third Industrial Revolution. How Lateral Power Is Transforming Energy, the Economy, and the World*. New York: Palgrave MacMillan.
- [54] Rullani, E. (2003). La conoscenza e le reti: gli orizzonti competitivi nel caso italiano. *Sinergie*, 61/62, 147-187.
- [55] Rullani, E. (2004a). *L'economia della conoscenza. Creatività e valore nel capitalismo delle reti*. Roma: Carrocci.
- [56] Rullani, E. (2004b). *La fabbrica dell'immateriale. Produrre va-lore con la conoscenza*. Roma: Carrocci.
- [57] Rullani, E. (2008). L'economia della conoscenza nel capitalismo delle reti. *Sinergie*, 76, 67-90.
- [58] Sacco, P. L. (2010). Cultura e sviluppo locale: il distretto culturale evoluto. *Sinergie*, 82, 115-119.

- [59] Sacco, P. L. (2011). *Culture 3.0: A new perspective for the EU 2014-2020 structural funds programming*. Brussels: European Expert Network on Culture.
- [60] Sacco, P. L. (2012). *Culture and the Structural Funds in Italy, Expert Network on Culture (EENC)*. Brussels: Verlag.
- [61] Sacco, P. L., & Crociata, A. (2013). A conceptual regulatory framework for the design and evaluation of complex, participative cultural planning strategies. *International Journal of Urban and Regional Research*, 37(5), 1688-1706.
- [62] Santagata, W. (ed) (2009). *Libro bianco sulla creatività. Per un modello italiano di sviluppo*. Milano: Università Bocconi.
- [63] Salvatori, G. (2011). La politica della ricerca nella dimensione trentina. In Marcantoni, M., Postal, G., & Toniatti, R. (eds), *Quarant'anni di autonomia. Il Trentino del Secondo Statuto (1971-2011). Volume II*. Milano: Franco Angeli.
- [64] Scott, A. J. (2000). *The Cultural Economy of Cities*. London: Sage Publication.
- [65] Scott, A. J. (2006). Creative Cities: Conceptual Issues and Policy Questions. *Journal of Urban Affairs*, 28(1), 1-17.
- [66] Scott, A. J. (2010). Cultural economy and the creative field of the city. *Geografiska Annaler: Series B, Human Geography*, 92, 115-130.
- [67] Sedita, S. R., & Paiola, M. (eds) (2009). *Il management della creatività. Reti, comunità e territori*. Roma: Carrocci.
- [68] Smart Specialization Platform (2012). *Guide to Research and Innovation Strategies for Smart Specialisation (RIS 3)*. Brussels European Commission.
- [69] Storper, M., & Scott, A. J. (2009). Rethinking human capital, creativity and urban growth. *Journal of economic geography*, 9(2), 147-167.
- [70] Tavano Blessi, G., Tremblay, D. G., Sandri, M., & Pilati, T. (2012). New trajectories in urban regeneration processes: Cultural capital as source of human and social capital accumulation – Evidence from the case of Tohu in Montreal. *Cities*, 29(6), 397-407.
- [71] TCI (2009). *Annuario del turismo e della cultura*. Milano: Touring Club Italiano.
- [72] Trullen, T., & Boix, R. (2008). Knowledge externalities and networks of cities in creative metropolis. In Cooke, P. & Lazzeretti, L. (eds), *Creative Cities, Cultural Clusters and Local Economic Development*. Cheltenham: Edward Elgar.
- [73] Turban, E., King, D., Mckay, J., Marshall, P., Lee, J., & Viehland, D. (2008). *Electronic Commerce 2008: A Managerial Perspective*. Upper Saddle River: Pearson Education, Inc.
- [74] Unioncamere, & Symbola-Fondazione Per Le Qualità Italiane (2011). *L'Italia che verrà. Industria culturale, made in Italy e territori*, <http://www.unioncamere.gov.it/P42A1181C189S123/L-Italia-che-verra--Industria-culturale--made-in-Italy-e-territori.htm>.
- [75] Yin, R. K. (2003). *Case study research: Design and methods (3rd ed.)*. Thousand Oaks: Sage.
- [76] Zuboff, S., & Maxmin, J. (2002). *The Support Economy – Why Corporations are Failing Individuals and the Next Episode of Capitalism*. New York: Penguin.

**An ugly store in a beautiful place? Exploring the effect of store interior and urban design
on consumers' inferences and store patronage intentions**

De Nisco Alessandro, denisco@unisannio.it
University of Sannio, Italy

Mason Michela
University of Udine, Italy

An ugly store in a beautiful place? Exploring the effect of store interior and urban design on consumers' inferences and store patronage intentions

Abstract

Although the role of store environmental cues on shopping behavior have been well documented, the effect of “external variables” (e.g. building architecture, character of the surrounding urban area etc.) remains relatively neglected. This paper investigates the influence of the aesthetic design of a urban area - and of its interaction with the store design - on consumers' evaluations of store image, product quality, service quality and store patronage intentions. Results from an experiment based on a videotape showed that while the store design represent a cue upon which customers draw inferences on store image, product quality, service quality and willingness to buy, the design of urban environment plays a significant direct role only in affecting patronage intentions. Interestingly, the interior store design was found to moderate the relationship between the urban aesthetic design and consumers' perceptions, On the basis of results, the paper discusses the theoretical contribution and provides implications for retail location and urban marketing choices.

Keywords: Urban design, Store design, Physical environment, Service quality, Product quality, Patronage intentions.

1. Introduction

Marketing scholars have devoted significant attention to analysis of the influence of environmental stimuli on consumer behaviour, and the role of environmental cues in consumption settings, such as retail outlets, has become an established research stream. Notwithstanding this, there remains the potential for further research contributions. In particular, the main emphasis of extant research is on the influence of “internal variables” *within* the retail/service outlet, while the effect of “external variables” (e.g. building architecture, character of the surrounding urban area etc.) – and the interaction between the internal and the external physical appearance -remains relatively neglected by comparison. Considering the importance of external appearance of a retail outlet, Turley and Milliman (2000, p. 195) suggest that “*this portion of the environment deserves more attention in that the exterior is the first set of cues normally seen by a consumer*”, and Puccinelli, Goodstein, Grewal, Price, Raghurir and Stewart state that “*we require more research to know how the consistency between elements of the retail store atmosphere, such as design cues, and exterior atmospheric cues (e.g. store exterior, signage) influence consumer evaluations and purchase intentions*” (2009, p. 24).

This research examines the influence of store interior design and urban aesthetic design on consumers' inferences of store atmosphere, service quality and product quality and subsequent patronage intentions, via a laboratory experiment based on a videotape which manipulated 2 different levels of aesthetic urban environment and store atmosphere attractiveness combined in a 2x2 between subjects design. From the theoretical point of view the proposed research adopts concepts and issues developed in theory relating to retail atmospherics (Kotler, 1973; Donovan and Rossiter, 1982; Baker, Grewal and Parasuraman, 1994), servicescape (Bitner, 1992) and service quality (Parasuraman, Zeithaml and Berry, 1988; Cronin, Taylor and Taylor, 1992; Cronin, Brady and Hult, 2000).

The next section briefly reviews extant retailing and service literatures on physical environment and highlights some gaps that call for further research. It is then presented the research gap and hypotheses investigated in this study. In paragraph 4 it is presented the study method and the results from an experiment involving a sample on students. Finally, the study concludes with discussion of managerial implications and suggestions for further research.

2. Literature Review: the Physical Environment as a Marketing Tool

Marketing research has provided a quite clear picture about the relationship between physical environment and consumer behavior. Since Kotler (1973, p. 50) defined the concept of “atmospherics” as “the effort to design buying

environments to produce specific emotional effects in the buyer that enhance his purchase probability”, many authors have investigated the influence of the physical environment on consumption outcomes. Results suggest that a wide range of physical stimuli related to the store atmosphere - including color, lighting, architectural style and music - are an important determinant of consumer perceptions and future behaviors, relating to merchandise and service quality (Baker, Parasuraman, Grewal and Voss, 2002), desire to stay and repatronage intentions (Wakefield and Baker, 1998). The effect of physical environment has been assessed in a wide range of situations where a product or a service is purchased or consumed, including retail stores (Donovan and Rossiter 1982; Chebat and Morrin, 2007), restaurants (Jang and Namkung, 2009), hotels (Aubert-Gamet and Cova, 1999), leisure services (Wakefield and Blodgett, 1999), sporting events (Hightower, Brady and Baker, 2002), events (Mason and Paggiaro, 2012) and on-line stores (Eroglu, Machleit and Chebat, 2003).

Within the different kind of environmental stimuli, variables related to aesthetic design appear to be a significant antecedent of consumers' shopping behavior. For example, the color of a store was found to influence store and merchandising perceptions (Chebat and Morrin, 2007), purchase intentions and shopping time (Bellizzi, Crowley and Hasty, 1983). Lighting was investigated by Summers and Herbert (2001), whose research suggest that lighting level is positively related to approach behaviors of customers. General interior design has also been found as a component of store image: for example Mazursky and Jacob (1986) used pictures of a store's general interior as one of the external cues in evaluating store image and they found that consumers use general interior design to infer impressions regarding quality of merchandise and pleasantness of shopping. However research based on environmental psychology has provided controversial support to the notion that store design is able to influence consumers' emotional states: while research by Wakefield and Baker (1998) and Wakefield and Blodgett (1999) reported that an attractive architecture is significantly related to feelings of excitement, Sherman, Mathur and Smith (1997) found a positive correlation between design factors and pleasure and a negative correlation with arousal.

The study of the physical environment has also been specifically applied to service industries. Perhaps the most widely cited research relating to the conceptualization of the physical environment in a service context is Bitner's (1992) analysis of the effect of the physical surroundings on the behaviors of service employees and customers. The author coined the term *servicescape* to identify three primary dimensions of the physical environment that influence employees and customers' holistic perceptions and their subsequent internal (i.e. satisfaction with the servicescape) and external responses (i.e. approach/avoidance, staying, repatronage). These dimensions are: (1) ambient conditions (i.e. weather, temperature, music, odors), (2) spatial layout and functionality (i.e. the way in which equipment and furnishings are arranged, and their ability to facilitate consumers' enjoyment), and (3) signs, symbols and artefacts (i.e. signage and décor used to communicate and enhance a certain image or mood, or to direct customers to desired destinations). The servicescape concept has provided the theoretical background for subsequent research investigating the effect of the service environment on consumer behavior. Findings from this stream of research show that physical components of a servicescape indirectly affect repurchase intentions, loyalty, facility image, and word of mouth (Baker, Parasuraman and Grewal, 1994; Wakefield and Blodgett, 1996, 1999) and that such influence is mediated by cognitive and emotional responses (Bitner, 1992). Moreover, the design of physical environment is also related to service quality evaluation, albeit with contradictory findings. While research by Parasuraman, Zeithaml and Berry (1991) and Baker, Grewal and Parasuraman (1994) reported that tangible elements related to facilities design have no effect on service quality perceptions, results by Wakefield and Blodgett (1996), Hightower, Brady and Baker (2000) and Baker, Parasuraman, Grewal and Voss (2002) in both store and leisure settings provided reliable support to the hypotheses that when ambience and design are more attractive consumers perceive higher service quality.

While retailing literature has devoted a relevant attention to the influence of internal stimuli within a store or service setting, the role of the exterior of the service facility remains relatively neglected in comparison. From a consumer perspective, there is an increasing body of literature – deriving from the location planning and development and the retail agglomeration management literatures (Teller, 2008) - which conceptualizes the attractiveness of retail destinations (see Teller, 2008, Teller and Reutterer, 2008, for extensive overviews of this area) and identify a range of factors influencing “retail agglomeration” attractiveness, including “retail-related” factors (such as tenant mix and merchandise value), and “environmental” factors (in particular “atmosphere”) as being of particular importance (Teller, 2008). Despite the limited number studies dealing with this aspect of the

environment, exploratory results supported to the notion that the exterior of a store or a service provider is able to affect consumers' evaluative perceptions and behavior. Namely, an attractive and innovative window display is found to significantly affect store image (Cornelius, Natter and Faure, 2010), and to exert a positive influence on decision to visit a store (Sen, Block and Chandran, 2002) and on sales (Edwards and Shackley, 1992). Moreover, in a study conducted on fast food restaurants Ward, Bitner and Barnes (1992) found that exterior environment resemblance is a stronger predictor of consumer attitudes and market share than interior resemblance. More recently, De Nisco and Warnaby (2014) investigated the influence of urban aesthetic design, tenant variety on consumers' emotional states and stated that that the variety of tenant-mix positively affects both pleasure and arousal while esthetic design has a significant influence only on pleasure. Emotional states induced by the urban environment, in turn, exert a different influence on shopping outcomes, with pleasure increasing the amount of money and time spent, and arousal positively influencing unplanned shopping and negatively affecting time and money. The same authors (De Nisco, Warnaby, 2013) analyzed the effect of urban design, space layout and functionality and external store appearance on overall perception of the service quality delivered in the urban area and found that physical space functionality and store appearance provide cues upon which customers base their perception of service quality provided in the shopping street and that service quality inferences, in turn, are able to affect desire to stay and repatronage intentions

3. Research Gaps and Study Hypotheses

In spite of the large attention devoted by marketing scholars on the relationship between physical environment and consumer behavior over the last thirty years, still some gaps remain to be addressed.

First, while a number of studies conducted at store-level have examined the effect of specific internal environmental characteristics on consumption outcomes, much less effort has been devoted to external variables (De Nisco and Warnaby, 2013, 2014). As consequence, although conventional wisdom suggests that external variables are able to affect consumers' perception, there is still need of more detailed empirical evidence to support such relationships and provide managerial insights.

Second, research to date has focused mainly on traditional store and service settings (shopping centers, specialty stores, restaurants, hotels, etc.) and there remains a lack of research about the influence of the physical environment in more complex and multi-functional consumption settings such as town and city centers, which are devoting increasing resources to designing, building and refurbishing their main streets in order to increase their attractiveness as venues for shopping and consumption activities.

Finally, there remains the need for more empirical research on the relative impact of physical environment on perceived service quality and product quality. Although classical service quality measurement models (e.g. Parasuraman, Zeithaml and Berry, 1988; Cronin and Taylor, 1992) include tangible elements as antecedents of perceived service quality, such elements have been found to have little or no significant effect on consumers' service quality perceptions. Moreover, while prior research suggests that the design of a store environment is a significant antecedent of a customer's evaluation of merchandise perception (Baker, Parasuraman, Grewal and Voss, 2002), extant research provides only limited empirical evidence to this relationship.

To address these aforementioned research lacunae, the present study adapted inference theory to the evaluation of store design and urban aesthetic design and incorporates insights from Baker, Grewal and Parasuraman (1994) and Baker, Parasuraman, Grewal and Voss (2002) conceptualizations of how physical environment affect consumers' inferences and behavioral intentions. The main hypothesis of this study is that perception of store design and urban aesthetic design are able to affect consumers' inferences of a store's image, product quality, service quality and store patronage intentions. Moreover, the study assumes that configuration of the urban design is able to moderate the relationship between the store design and perception of store atmosphere, product quality, service quality and behavioral intentions. Such assumptions were based on prior research on retail atmospherics suggesting that variables related to ambience and physical design (i.e. color, light, etc.) are able to affect consumers' perceptions and expected behavior (Wakefield and Blodgett, 1996; Hightower, Brady and Baker, 2000; Baker, Parasuraman, Grewal and Voss, 2002) and on the intuitive notion that since urban aesthetic elements

are the first set of visual stimuli experienced by consumers when they visit a urban area for shopping purposes, they are likely to include the perception of the surrounding physical context as a cue in their overall evaluation.

On the basis on the above considerations, the following hypotheses were therefore proposed and tested:

- H₁:** *The interior store design has a positive influence on consumers' inferences of product quality (H1a), service quality (H1b), store image (H1c) and patronage intentions (H1d). Namely, consumers will rate product quality, service quality, store image and patronage intentions as higher if the store has a high-attractive internal designed than if it has a low-attractive internal design.*
- H₂:** *The aesthetic design of the urban location has a positive influence on consumers' inferences of product quality (H2a), service quality (H2b), store image (H2c) and patronage intentions (H2d). Namely, consumers will rate a store's product quality, service quality, store image and patronage intentions as higher if the store is located in a high-attractively designed urban environment than if it is located into a low-attractively designed urban environment.*
- H₃:** *The interior store design will moderate the relationship between the aesthetic design of the urban environment and consumers' evaluation of product quality (H3a), service quality (H3b), store image (H3c) and patronage intentions (H3d). Therefore, the aesthetic design of the urban environment is expected to affect consumers' evaluations of product quality, service quality, store image and patronage intentions in a different way if the store has an high-attractively interior design than if it has a low-attractively interior design.*

4. Method and Results

The study hypotheses were tested in an experiment which manipulated urban aesthetic design and store atmosphere into a 2 (high vs. low attractively designed urban environment) x 2 (high vs. low attractive interior store design) between-subjects factorial design. Both urban aesthetic design and store atmosphere were manipulated with more environmental elements, which were drawn or adapted by previous literature on store and service environments.

The experiment involved 283 students enrolled on business courses at an Italian university and a videotape was used in order to simulate the shopping experience. The context chosen for this study was a young fashion clothes store located in an historic town center. The kind of store was selected on the basis of the socio-demographic characteristics of the sample. Four experimental versions of the videotape were created in order to combine a high vs. low attractively designed urban environment with a high vs. low attractive store atmosphere. As for the urban environment, the treatment which included the high attractively designed urban environment encompassed a well maintained pedestrian street, refurbished and attractive buildings and clean streets while the low attractively designed urban environment included the same items in a more obvious state of disrepair (see Fig. 1). As for the store environment (see Fig. 2), on the basis of previous literature (Baker, Grewal and Parasuraman, 1994) the high-attractive design was employed through an open layout, cold white lights and colors and a neat organization of merchandise while the low attractively designed store environment was operationalized in the opposite way. A series of pre-tests were made in order to ensure that proposed environmental stimuli were perceived in the right direction and that the students had no familiarity with them.



FIGURE 1: HIGH ATTRACTIVELY DESIGNED VS. LOW ATTRACTIVELY DESIGNED URBAN ENVIRONMENT



FIGURE 1: HIGH ATTRACTIVELY DESIGNED VS. LOW ATTRACTIVELY DESIGNED STORE DESIGN

Small groups of subjects viewed the videotape, which visually “walked” them into the urban street and the fashion store. Each videotape had exactly the same length and included environmental stimuli in the same sequence. At the end of the video, students were asked to complete a self-administered questionnaire based on a 7-point Likert scale in order to rate their evaluations on the study measures. The research instrument included measures of store image, service quality, product quality and consumers’ patronage intentions drawn from previous research (Baker, Grewal and Parasuraman, 1994; Wakefield and Blodgett, 1996; Cronin, Brady and Hult, 2000; Baker, Parasuraman, Grewal and Voss, 2002). For each latent scale, internal consistency was evaluated through Cronbach’s Alpha, and results ranged from 0.93 to 0.97. The specific items are provided in table 1.

TABLE 1: MEASUREMENT SCALES AND CRONBACH’S ALPHA

	MEAN	STANDARD DEVIATION	CONBACH’S ALPHA
STORE IMAGE	3.64	5.60	0.97
This store would be an attractive place for shopping	3.67	2.38	
This store has a pleasant and fascinating atmosphere	3.66	2.37	
This store is attractive	3.58	2.34	
SERVICE QUALITY	3.91	5.19	0.94
I would expect high service quality in this store	3.84	2.35	
Employees of this store could be expected to give prompt and professional service	3.89	2.19	
I would expect to receive personal attention in this store	4.02	2.30	

PRODUCT QUALITY	3.52	4.54	0.93
I would expect high quality products in this store	3.51	2.21	
The workmanship of products from this store would be expected to be high	3.53	2.04	
STORE PATRONAGE INTENTIONS	3.34	4.81	0.96
I would like to shop in this store	3.48	2.22	
I would like to spend time in this store	3.24	2.14	
I would suggest my friends and relatives to shop in this store	3.34	2.22	

All the hypothesized relationships were tested using ANOVA with SPSS. The results for H1, H2 and H3, summarized in Table 2, are discussed next.

As for the influence of store design the data analysis confirmed that interior design manipulations were effective for all the dependent variables. Namely the results showed that the high-attractively designed store environment is able to enhance consumers' inferences of store image ($M_{\text{high-attract}}=6.05$ VS. $M_{\text{low-attract}}=1.59$; $F=3,179.08$; $p<0.001$), product quality ($M_{\text{high-attract}}=5.39$ VS. $M_{\text{low-attract}}=1.75$; $F=1,044.02$; $p<0.001$), service quality ($M_{\text{high-attract}}=5.97$ VS. $M_{\text{low-attract}}=1.97$; $F=1,733.36$; $p<0.001$) and is a significant antecedent of consumers' patronage intentions ($M_{\text{high-attract}}=5.31$ VS. $M_{\text{low-attract}}=1.51$; $F=1,338.70$; $p<0.001$). Such results provided support to hypotheses H1a, H1b, H1c and H1d. On the other side, results for the external design revealed that the urban aesthetic is able to influence only consumers' patronage intentions ($M_{\text{high-attract}}=3.65$ VS. $M_{\text{low-attract}}=3.16$; $F=22.689$; $p<0.001$) but not inferences of store image, product quality and service quality. Therefore, H2d was supported while H2a, H2b and H2c were rejected. Results from the ANOVA also showed a significant interaction effect of store design and urban design on the store patronage intentions ($F=6.56$; $p<0.05$).

In order to test the moderating role of the internal store design on the relationship between the urban aesthetic design and dependent variables the dataset was splitted into the high-attractively designed store VS low-attractively designed store treatments and two separate ANOVA were runned with the urban design as the independent variable and evaluations of store image, product quality, service quality and patronage intentions as dependent variables. Interestingly, results showed significant differences between the two experimental conditions. On one hand, in the low-attractively designed store treatment the effect of the urban aesthetic design was significant only for the evaluation of the patronage intentions ($M_{\text{high-attract}}=1.62$ VS. $M_{\text{low-attract}}=1.39$; $F=5.117$; $p<0.05$) but not for the store image, product quality and service quality inferences. On the other end, in the high-attractively designed store condition results from the ANOVA reported that an attractive urban location is able to significantly enhance consumers perception of service quality ($M_{\text{high-attract}}=6.14$ VS. $M_{\text{low-attract}}=5.80$; $F=6.545$; $p<0.05$), product quality ($M_{\text{high-attract}}=5.59$ VS. $M_{\text{low-attract}}=5.19$; $F=4.653$; $p<0.05$), and to increase expected patronage intentions ($M_{\text{high-attract}}=5.68$ VS. $M_{\text{low-attract}}=4.92$; $F=16.837$; $p<0.001$). Conversely, no significant effect was found with the store image inferences. On the basis of the above results it can be assumed that internal store design moderates the effect of urban design for product quality, service quality and patronage intentions but not for the store image. Thus, H3a, H3b and H3d were supported, while H3c was rejected.

TABLE 2: RESULTS FROM THE ANOVA AND MODERATING TEST

	ANOVA STORE IMAGE (F values)	ANOVA SERVICE QUALITY (F values)	ANOVA PRODUCT QUALITY (F values)	ANOVA PATRONAGE INTENTIONS (F values)
STORE AESTHETIC DESIGN	3,179.08**	1,733.36**	1,044.02**	1,338.70**
URBAN AESTHETIC DESIGN	2.876(n.s.)	3.291 (n.s.)	3.34 (n.s.)	22.689**
URBAN AESTHETIC DESIGN X STORE AESTHETIC DESIGN	0.06 (n.s.)	2.762 (n.s.)	3.027 (n.s.)	6,56*

EFFECT OF THE URBAN AESTHETIC DESIGN				
LOW-ATTRATIVELY DESIGNED STORE CONDITION	0.55 (n.s.)	2.762 (n.s.)	3.027 (n.s.)	6.550*
HIGH-ATTRATIVELY DESIGNED STORE CONDITION	3.022 (n.s.)	6.545*	4.653*	16.837*

*p<0.05;**p<0.001

5. Conclusion and Implications

This study used an experimental approach in order to investigate the influence of store interior design and urban external design on consumers' perceptions and expected behavior. Results showed that the aesthetic appearance of the store provides cues upon which customers base their inferences of service quality, product quality and store image and it is able to affect store patronage intentions. On the other end, the aesthetic design of the urban environment appears to be able to affect only the perception of the store image and intentions to visit. Interestingly, the store interior design was found to play a significant moderating role in the relationship between the urban environment and the consumers' outcomes. According to our results, a prestigious store location is able to enhance consumers' inferences only when the store has an attractive interior design while if the store has a low-attractively design environment the effect of a prestigious location is irrelevant. Such findings suggest several theoretical and managerial implications.

From a theoretical point of view, this paper provides an original contribution to the marketing literature on retailing and urban marketing in at least two directions. First, the study provides an additional understanding about the effect of store design on consumers' inferences and expected behavior. Although previous research has investigated the influence of specific store design components such as the colors (Bellizzi, Crowley and Hasty, 1983; Chebat and Morrin, 2007) and the lighting (Summers and Herbert, 2001) only a limited number of contributions have analyzed the role of the store design from a more holistic perspective.

Second, in our knowledge this is the first paper to analyze the effect of the urban design attractiveness – and its interaction with the store design – on consumers' inferences of store image, product quality, service quality and on expected patronage intentions. Most of the existing research has focused on internal stimuli within a store or service setting, while the effect of what can be termed “external variables” (e.g. building architecture, the character of the surrounding urban area etc.) – and the cross-effect of the internal and the external environment - remains relatively neglected by comparison (Turley and Milliman, 2000; Puccinelli, Goodstein, Grewal, Price, Raghuram and Stewart, 2009). This study provides a contribution in filling this void into the retail atmospherics and urban marketing literatures. Moreover, the employment of a laboratory experiment in order to understand the effect of the physical environment on consumer behavior can be considered a significant innovation in the urban studies.

From a managerial point of view, results from our study provide potential insight to both retail managers and police makers. Since many urban centres are devoting increasing financial and managerial efforts to improve the attractiveness and functionality of the physical space to attract consumers, retailers and leisure activities, public and private stakeholders should be aware not just that the physical environment is important in the customer's experience, but also of what specific elements of the physical setting are most significant. The present study provides a guidance in developing appropriate strategies for managing retailing location and urban marketing choices. For example, our results would discourage managers of discounted designed stores to sustain a significant economic effort in order to find an “attractive” urban location with the aim to enhance consumers' perception of store image and quality inferences, since this choice might not lead to the expected results. On the other end, attractively designed stores can draw significant image benefits from the selection of a “right” location.

Moreover, the notion that an attractive location is able to enhance consumers' patronage intentions both for the highly attractive and for the low attractive stores seems to be also relevant from a urban marketing perspective. Given ever more intense place competition, there is among those responsible for the management of urban locales, a perceived need to maximize feelings of place association and belonging among users (particularly in terms of shopping and recreation), in order to optimize place competitive advantage. This study supports the notion that an attractively designed urban environment plays a critical role in order to enhance the attractiveness of inner city shopping streets

and downtown patronage intentions. Therefore, urban shopping destinations should follow the example of the retailers therein, and engage in what Badot and Filser have termed the “re-enchantment of retailing”, which encompasses the development of a set of practices “that activate non-functional sources of value” during a visit (2007 p. 167), thereby immersing the consumers in a memorable shopping experience within a carefully designed urban atmosphere.

There are a number of limitations, which combined with the findings identify directions for further research. First, results from the experiment presented in this study are based on a student sample. Although non-probabilistic samples are largely used in store environment research, results could be biased from the sampling procedure, since the effect of retail environment could be affected by individual characteristics such as age, income and education). Second, results from the study are necessarily limited to the study’s context. Therefore, future research is needed to explore the effect of store and urban environments in different store types. Moreover, further research might also compare consumers’ perceptions for high-involvement products (e.g. luxury goods) vs. low-involvement products (e.g. food, personal goods). Finally, the proposed research framework could be expanded to include other dependent variables - such as price and brand names – that are likely able to affect consumers’ inferences and consumption choices.

References

- [1] Aubert-Gamet, V. and Cova, B. (1999)., Servicescapes: from modern non-places to postmodern common places, *Journal of Business Research*, 44 (1), 37-45
- [2] Badot, O. and Filser, M. (2007). Re-enchantment of retailing - toward utopian islands. In A Carù, B Cova (Eds) *Consuming experience* (pp 166-181) London and New York: Routledge.
- [3] Baker, J., Grewal, D. and Parasuraman, A. (1994). The influence of store environment on quality inferences and store image, *Journal of the Academy of Marketing Science*, 22 (4), 328-339.
- [4] Baker, J. Parasuraman, A. Grewal, D. and Voss G. B. (2002). The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions, *Journal of Marketing*, 66 (April) 120-141.
- [5] Bellizzi, J.A., Crowley, A.E. and Hasty, R.W. (1983). The Effect of Color in Store Design. *Journal of Retailing* 59 (1), 21-45.
- [6] Bitner, M. J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees, *Journal of Marketing*, 56 (April), 57-71.
- [7] Chebat, J.C. and Michon, R. (2003). Impact of ambient odors on mall shoppers' emotions, cognition, and spending : a test of competitive causal theories. *Journal of Business Research*, 56 (7), 529– 539.
- [8] Chebat J. and Morrin M. (2007), "Colors and Cultures: Exploring the Effects of Mall Decòr on Consumer Perceptions", *Journal of Business Research*, 60, 189-196.
- [9] Cronin, J. J. and Taylor, S. A. (1982). Measuring service quality: A reexamination and extension, *Journal of Marketing*, 56 (3), 55-68.
- [10] Cronin, J. J., Brady, M. K. and Hult, J. T. (2000). Assessing the effects of quality, value and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76 (2), 193-218.
- [11] De Nisco A., Warnaby G. (2014). Urban Design and Tenant Variety Influences on Consumers' Emotions and Approach Behavior, *Journal of Business Research*, 67(2), 211-217.
- [12] De Nisco A. and Warnaby G. (2013). Shopping in downtown. The effect of urban environment on service quality perception and behavioral intentions, *International Journal of Retail & Distribution Management*, 41 (9), 654-670.
- [13] Donovan, R.J. and Rossiter, J.R. (1982). Store Atmosphere: An Environmental Psychology Approach, *Journal of Retailing*, 58 (1), 34-57.
- [14] Edwards, S. and Shackley, M. (1992), "Measuring the Effectiveness of Retail Window Display as an Element of the Marketing Mix" *International Journal of Advertising*, Vol. 11, pp. 193-202.
- [15] Eroglu, S. A. and Machleit, K. A. (1990). An empirical study of retail crowding: antecedents and consequences. *Journal of Retailing*, 66(2), 201-221.
- [16] Eroglu, S. A., Machleit, K. A., and Chebat, J. (2003). Empirical testing of a model of online store atmospherics and shopper responses. *Psychology and Marketing* 20 (2), 139-150.
- [17] Hightower Jr, R., Brady, M. K. and Baker, T. L. (2002). Investigating the role of the physical environment in hedonic service consumption: an exploratory study of sporting events. *Journal of Business Research*, 55(9), 697-707.
- [18] Jang, S. and Namkung, Y. (2009). Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian-Russell model to restaurants. *Journal of Business Research*, 62, 451-460.
- [19] Kaplan, R., S. Kaplan, and Ryan R. (1998). *With People in Mind*. Washington, DC: Island Press
- [20] Kotler, P. (1973). Atmospherics as a Marketing Tool. *Journal of Retailing*, 49 (3), 48-56.
- [21] Mari, M. and Poggessi, S. (2013). Servicescape cues and customer behavior: a systematic literature review and research agenda. *The Service Industries Journal*, 33(2), 171-199.
- [22] Mason, M. C. and Paggiaro, A. (2012). Investigating the role of festivalscape in culinary tourism: The case of food and wine events. *Tourism Management*, 33(6), 1329-1336
- [23] Nasar, J. L. (1997). New Developments in Aesthetics for Urban Design. In *Advances in Environment, Behavior, and Design*, G.T. Moore and R. W. Marans, eds., pp. 149-194, New York: Plenum Press

- [24] Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1988). SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64 (1), 12-40.
- [25] Puccinelli, N.M., Goodstein, R.C., Grewal, D., Price, R., Raghubir, P. and Stewart, D. (2009). Customer Experience in Retailing; Understanding the Buying Process, *Journal of Retailing*, 85 (1), 15-30.
- [26] Sen, S. Block, L. G. and Chandran, S. (2002), "Window-Displays and Consumer Shopping Decisions", *Journal of Retailing and Consumer Services*, Vol. 9 No. 5, pp. 277-290.
- [27] Summers, A.T. and Herbert, P.R. (2001). Shedding some light on store atmospheric influence of illumination on consumer behavior. *Journal of Business Research* 54, 145-150.
- [28] Sherman, E., Mathur, A. and Smith, R. B. (1997). Store Environment and Consumer Purchase Behaviour: Mediating Role of Consumer Emotions. *Psychology and Marketing* 14 (4), 361-378.
- [29] Teller, C. (2008). Shopping streets versus shopping malls – determinants of agglomeration format attractiveness from the consumers' point of view, *International Review of Retail, Distribution and Consumer Research*, 18 (4), 381-403.
- [30] Teller, C. and Reutterer, T. (2008). The evolving concept of retail attractiveness: What makes retail agglomerations attractive when customers shop at them? *Journal of Retailing and Consumer Services* 15 (3), 127-143.
- [31] Turley, L.W. and Milliman, R.E. (2000). Atmospheric Effects on Shopping Behavior: A Review of the Experimental Evidence, *Journal of Business Research*, 49 (2), 193-211.
- [32] Wakefield, K.L. and Baker, J. (1998). Excitement at the Mall: Determinants and Effect on Shopping Response. *Journal of Retailing* 74 (4), 515-539.
- [33] Wakefield, K. L. and Blodgett, J. G. (1996). The effect of the servicescape on consumers' behavioral intentions in leisure service setting, *Journal of Services Marketing*, 10 (6), 45-61.
- [34] Wakefield, K.L. and Blodgett, J.G. (1999). Customer Responses to Tangible and Intangible Service Factors, *Psychology & Marketing*, 16 (1), 51-68.
- [35] Ward, J. C. Bitner, M. J. and Barnes, J. (1992), "Measuring the Prototypicality and Meaning of Retail Environments" *Journal of Retailing*, Vol. 68 No. 2, pp. 119-121.
- [36] Warnaby, G. (2009). Viewpoint: Managing the Urban Consumption Experience? *Local Economy*, 24(2), 105-110.
- [37] Zeithaml, V. A., Berry, L. L. and Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60 (April), 31-46.

Who Needs Big Data Computing?

Thomas H. Lenhard, thomas.lenhard@fm.uniba.sk
Comenius University Bratislava, Slovakia

Who Needs Big Data Computing?

Abstract

The world's largest computer exhibition CeBIT in Hannover/Germany, in 2014, was devoted to two topics. One topic was data protection and the other was business intelligence including Big Data computing. In almost all economic sectors consultations are currently being offered that handle with Big Data computing. But even experts in the field of business intelligence ask the question, what can Big Data provide that was not previously available? A well-known search engine provider failed in an attempt to predict the course of a flu season by the use of Big Data computing in Winter 2013/2014. When reading, or hearing, the term Big Data many people meanwhile think inevitably of excessive acquisitiveness of personal data by the U.S. American authorities. But the term Big Data has never been clearly defined.

The present paper will give an overview about what can be understood as Big Data computing. It will be critically discussed if the term at all brings any innovations. It will also be checked how efficient the so-called Big Data practices can be used and if more efficient solutions can be provided here by the use of traditional statistical methods and algorithms. A practical example shows how large amounts of data were as efficient as effectively processed and evaluated more than one decade ago. It will be discussed in which case it will make sense to use the term Big Data. Finally, it will be questioned on the basis of facts and hard numbers whether and how economic added value can be achieved for companies through the use of Big Data and who needs Big Data computing.

The terms Big Data or Big Data Computing

When doing research about this topic and searching for a definition of the term Big Data it is striking that there seems to be no clear boundaries, nor generally accepted definitions, of the term. In most articles about Big Data we can read terms like challenges, chances and benefits. Most of these articles seem to be more advertisement of consultant companies than really usable information. One thing is clear “Big” means that we handle large amounts of data and lots of data sets. But: What is a large amount of data? Remembering the past of business intelligence it was stated in the early 90s that a data warehouse that would include more than 50 Mbytes would make no sense and that it would never exceed this value. What was called a large amount of data twenty years ago is hardly worth mentioning today. Just a few high resolution images require more than 50 MB of disk space today. Such an amount of data is therefore quite small by today's standard. If we use terms in information technology like database or router, the meaning is the same in 2014 as it had been in 1994 and it is likely, even if the technology evolves, that the meaning in 20 years will still be the same. Maybe it will be conducive for a discussion, to have a look at the second part of the term, first. Data means values, numbers, facts and other attributes that describe a real state, event or object. Even if this is a very simplified definition, the part “Big” is still undefined. An article of the German Society for Informatics (GI) explains, that the term “Big” may be used when the amount of data is so large that they cannot be handled by the use of conventional technologies [KTGH2013].

Conventional Technologies

If we follow the idea that we speak about Big Data as soon as conventional technologies are not practicable for computing the amounts of data, we will face some other problems. It is not enough to access an amount of data by an analytical system and hope that useful information will come out of it. We need a frame of information as a target for any analysis and it seems to be an elementary requirement to know, what kind of information is looked for. Do we search for correlations? Or do we look for trends? Many publications about Big Data describe it as a system that gets huge amounts of different and incoherent data and generates best information out of chaos. Facing such descriptions, that will often explain the difference between the “ancient” ideas and techniques of business intelligence and data mining and the superiority of Big Data, it seems that someone has found the Holy Grail of Information Technology. Whatever Big Data might be, it will not be able to make gold out of filth. Any analytical system is useless as long as no one knows how to administer and use it and how to interpret the output. It's not a system that creates analytical solutions – it is the human who uses the system as a tool to realize his ideas. But where is the link between the human and the conventional technology? If conventional technology, let's use this term for relational database management systems and the “ancient”

Structured Query Language (SQL), is used the efficiency of the usage depends also on the knowledge of developers and administrators. The following real example will show what this means:

Example: A multinational trading company had built a data warehouse. During the night, sales data of the previous day were transferred to the headquarter as flat files of a uniform shape, since there were many different systems in use. These flat files had to be parsed into a data base. In the next steps, the parsed data was validated and aggregated and in the last step, data was available in different data base tables for reporting. The head of the company insisted that the reports about the sales of the previous day would be available at 9:00 o'clock in the morning. Since the last flat files with raw data arrived at 6:00 o'clock in the morning, there was only a time frame of three hours. Unfortunately the processing of the daily data and the actualization of the report tables took up to six and a half hours. Since very powerful servers had already been used for processing the data, the problem of the short time window appeared not solvable, first. Picture 1 shows the chain of processes, that were built to generate information out of raw data.

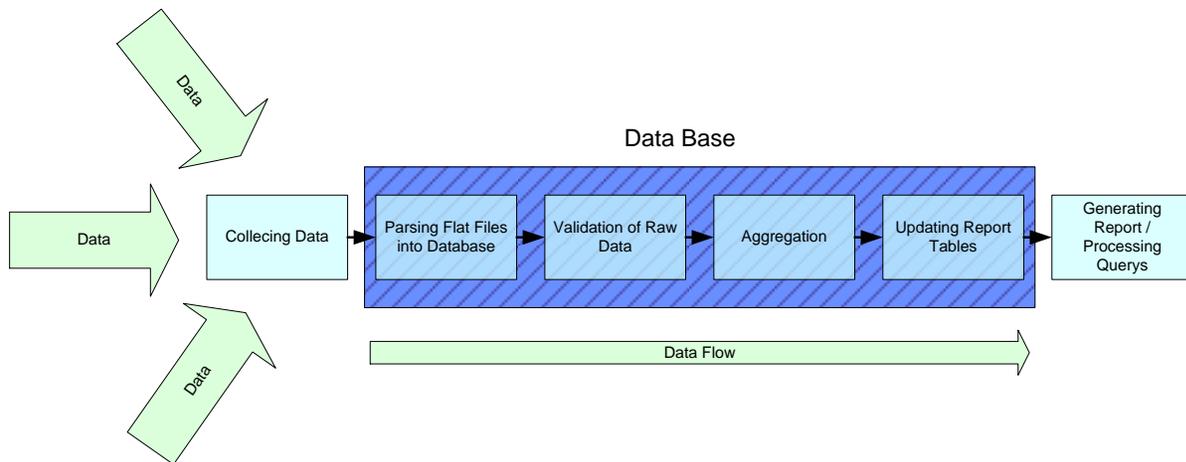


FIGURE 1: DATA WAREHOUSE BEFORE OPTIMIZATION

The great philosopher René Descartes provided the solution to this problem by the second of his four rules which states that a problem that seems to be unsolvable in total, should be broken down into smaller sub-problems which then will be dissolved [Des1960]. In this case, the database was identified as the problem, which caused the time-consuming processing. Since millions of data sets are written during the whole process, there were many locks of data sets. Reading or writing data sets, the used data base management systems locks these data sets and writes entries about that into the lock-tables. This process was identified as the main reason for slowing down processing the data. After the source of slowness had been identified, the next question was about the need for locks. To avoid the creation of reports, while thousands or millions of data sets are written into the report tables, locks are reasonable and necessary. But all other jobs in the chain of processes of this data warehouse worked in a sequential way. The next process/job was started, when the previous one was finished. Therefore there was no danger of any collision and for most of the processes locking of data sets was dispensable. Some relational data bases allow disabling the locking function. In this case, it was only possible to disable it in total or not. Since the report tables needed the locking mechanisms, it had been decided to split the data base into three new data bases. This construction was much faster than the model that is shown as picture 1. Since it was possible to start parsing and processing again at any time and data sets would have been overwritten, data base logs were also disabled for the sequential working processing data bases. Picture 2 shows the data warehouse model after the reengineering.

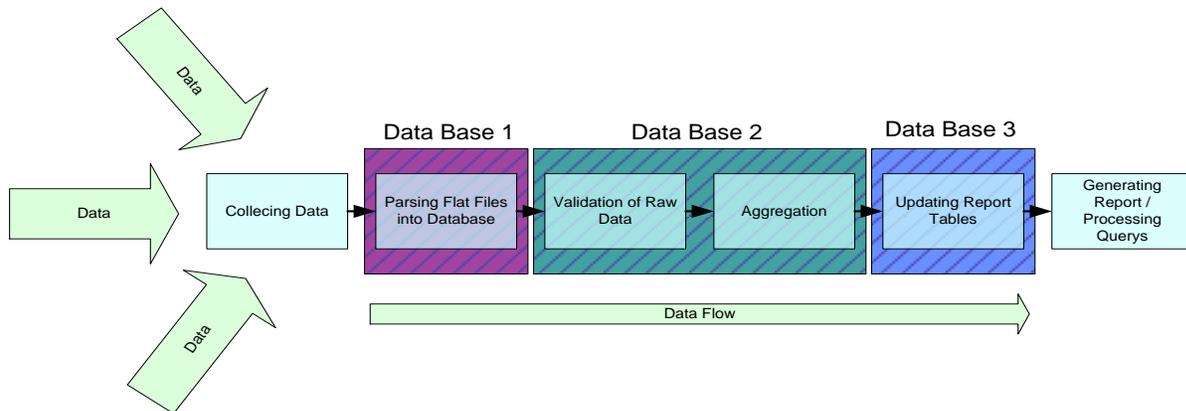


FIGURE 2: DATA WAREHOUSE AFTER OPTIMIZATION

After this reengineering, the daily processing time was brought down from approximately 6 hours and 30 minutes to less than 20 minutes. Other optimizations were also realized like an improvement of the hard disk configuration of the data base server. More improvements can be realized by optimizing queries, additional indices, algorithm changes, clustering and many other usable methods of performance tuning [see IRBS199].

Do we now think again about the limits of conventional technologies, it has been shown by a real example that limits, do not necessary become absolute and, may depend more on the skills of a developer than on any hardware or data base.

Methods

As one method that is often named as a typical method of Big Data, NoSQL can be looked at. The short name might be misleading, because the full name is Not Only SQL. The term “not only” implies that SQL is still important, but there are some more functions available. NoSQL can be used for huge amount of data bases as well as with distributed systems. But it is also used for data bases than includes documents in order to make the content of stored documents available for searching routines. This last function proves, that NoSQL may also be used for small data bases that include documents. Therefore, even if it may be used for computing with huge amounts of data, NoSQL cannot be understood as a child of Big Data Computing. Another method that should be discussed here is a way of visualization that is often shown in the context of Big Data Computing. Picture 3 shows such a visualized result of a Big Data analysis.



FIGURE 3: VISUALIZATION OF DATA

Irrespective of the values in picture 3, this example is shown to ask if such a report is really readable, or usable, or if these results should better prepared by a classical data warehouse. Visualization in data analysis is meant to be a tool to read information out of data much faster than it would be possible by working with endless columns of numbers/values. Each reader of this work can decide for himself if he can or if he wants to read data from a graph like the one that is shown as picture 3.

Big Data in Health Care

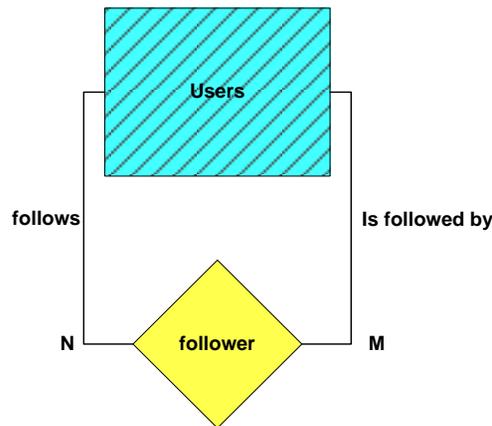
As an example of a branch where Big Data is advertised in the last months like being the Philosopher's Stone, health care and especially the clinical environment is chosen in this study. Even the biggest hospital groups do not create such huge amounts of data, that relational data bases would not able to process this data. Let's think about a hospital group that has in total a capacity of 30.000 beds/units distributed over many locations. This hospital cares about inpatients and outpatients while the relationship between these groups is assumed as being two to one. It is realistic that each unit (bed) is used for 35 – 40 patients per Year. That means, that the hospital group can medicate around 1.5 – 2.0 millions of in- and outpatients per year. Even if we calculate very high and assume that each case would arise 100 records/data sets, we would have in total not more than 200 million of data sets per year. The highest demand for hard disk capacity in health care IT is caused by radiological records (e.g. Computed Tomography, Magnetic Resonance Imaging). These devices can generate some Terabyte of data each year, but even inside a very large hospital group, all this data can be handled by so called conventional technologies. While working for this study there were not even one example found, were special methods or techniques are needed to compute or analyze clinical data. Even in the field of clinical research, knowledge about Biometry and Medical Statistics seems to be more important, than any special data base. The reason, why something abstract that is advertised by using the term Big Data is not needed in the area of health care, is the fact that the amount of data in the clinical area is of a manageable size. Therefore it is completely sufficient to use conventional techniques and “ancient” method of business intelligence to analyze health care data.

Who needs Big Data?

As explained in the previous chapter, any Big Data Computing is – at the actual point in time – not needed in health care business. The extension “actual point in time” should remember the reader to an earlier chapter, which cited a statement from the 90s about the maximum size of a data warehouse. In analogy to the calculated example from the field of health care, we can assume that most of the companies in the world do not actually need Big Data Computing. But which company or organization has such a lot of data, that special methods are needed to handle them?

The internet portal Twitter created proprietary solutions for handling enormous amounts of data. If the term enormous is used in this context, so is the meaning that Twitter collects and processes data to an extent that is beyond all amounts of data that would be feasible for industrial or commercial enterprises.

One problem that Twitter had to solve is the function “follower”. In January 2014 this company had 241 million users. In theory each user can follow all other users so that a follower list could have nearly $241,000,000^2$ entries. In the world of relational data bases, this would mean that a recursive relationship of a table (user) with itself would result in an additional table that would –in worst case – include the Cartesian product of its data (picture4). We think about 58,081,000,000,000,000 data sets (in one table). Even if such a table would have well planned indices, it would take some time to process a query on it. And time is the next component that makes us think about new methods of data handling. Because by using such a system users expect immediate results.



PICTURE 4: RECURSIVE RELATIONAL OF A USER TABLE

Now we can think of a hypothesis that methods beyond conventional technique would make sense, if there is

- a high combinatory that results in an amount of data, that is difficult to handle or if we face a kind of data collection mania (e.g. NSA) and,
- the results have to be available to the users immediately.

Conclusion

The term Big Data is problematic because of two reasons. There is no exact or clear definition what Big Data or Big Data Computing includes and what is not in the focus of this term. The second problem is, that the term is misused for advertisement and users and customers were made to believe, that Big Data would be the ultimate development of business intelligence or data mining. Big Data is not a method, function, philosophy or solution. The term Big Data merely points out, that there might be limits where additional solutions are needed to compute huge amounts of data. But this insight is not a merit to the discussion about Big Data. Methods like denormalization, methods of optimization, improved indexing and reengineering as shown in the chapter about the data warehouse optimization, are not new. Since data bases exist developers think about improvements and about processing higher amounts of data. The Big Data discussion is also not the source of methods that are often described as Big Data methods. These methods are solutions for special applications that need functions, algorithms and solutions beyond the conventional world of relational data bases. That means that such methods do not substitute any of the so called conventional techniques. Statistics, mathematics and common data mining are still actual but in cases of special requirements, these methods can be supported by the methods that are designed to handle huge amounts of data and to provide data and information in the shortest time [see MKG2014].

However, one merit goes to the account of the Big Data discussion: It has moved into the general consciousness as excessive personal data is collected about us. Some companies seem to know more about us than we do and they seem to know our needs before we know them. So this merit of the Big Data discussion is a new discussion about ethics and the question if we really want to let companies look into our head. Perhaps the data collection mania will cause the “information overkill” and we will come to the point, where the cost of profiling outweighs the benefits.

References

- [1] [KTGH2013] Klein, D., Tran-Gia, P., Hartmann, M., Big Data - Artikel erschienen im Informatiklexikon auf der Webseite der Gesellschaft für Informatik (GI) unter der URL: <http://www.gi.de/nc/service/informatiklexikon/detailansicht/article/big-data.html>; Springer-Verlag; Berlin/Heidelberg; 2013
- [2] [Des1960] Descartes, R., Discours de la méthode pour bien conduire sa raison et chercher la vérité dans les sciences, Felix Meiner Verlag, Hamburg, 1960
- [3] [IRBS1999] Inmon, W.H., Rudin, K., Buss, C.K., Sousa, Ryan, Data Warehouse Performance, Wiley Computer Publishing, New York, 1999
- [4] [MKG2014] Molnar, E., Kryvinska, N., Greguš, M., Customer Driven Big-Data Analytics for the Companies' servitization, The Spring Servitization Conference 2014 (SSC 2014), 12-14 May 2014, Aston Business School, Aston University, UK, Eds. T. Baines, B. Clegg, D. Harrison, ISBN 978-1-85449-472-6, pp. 133-140.

**An evaluation of the effects of consumer cultural values on self-congruity: the case of
“Apple” in the Chinese market**

Longfei Li, longfei.li@mbs.ac.uk

Nitin Sanghavi, nitin.sanghavi@mbs.ac.uk

Claudio De Mattos, Claudio.de-mattos@mbs.ac.uk

Manchester Business School, The University of Manchester (UK)

An evaluation of the effects of consumer cultural values on self-congruity: the case of “Apple” in the Chinese market

Abstract

Self-congruity, a combination of self-image and product/brand image, is a crucial concept for scholars and marketers. When brand image matches with consumers' self-image, it ensures preference and purchase intention. The purpose of this study is to investigate image congruence between global consumer brand image and consumers' self-image towards purchase intention from a value-oriented perspective. The brand “Apple” by Apple Inc. is used as a typical global consumer brand. Based on a critical literature review of two subjects: self-congruity and consumer cultural values, a model emphasising aspects of global consumer culture such as materialism, innovativeness, nostalgia, ethnocentrism, and environmentalism was developed and tested. This study's results are dramatically different from the self-congruity studies that applied Hofstede's national-cultural framework; this research therefore provides a new way to evaluate self-congruity towards purchase intention by focusing on consumer cultural values. Our findings and recommendations are expected to benefit global firms in adapting their positioning strategies and brand portfolios.

Introduction

Consumer researchers assume that product and brand image interrelate with self-concept or that they are congruent and therefore influence consumers' buying behaviour and brand performance (e.g. Kressmann et al., 2006; Kuester et al., 2007). Empirical studies have determined that the notion of self-congruity plays a significant role in the evaluation of global brands and self-image also significantly influences purchase intention (Jamal & Goode, 2001). Although existing studies of image congruence regarding global consumer brands encountered problems with widespread implementation, a broader application of self-congruity theory could overcome these difficulties by extending product categories and target consumer groups (Kwak & Kang, 2009). The purpose of this study is therefore to investigate image congruence between brand image and consumers' self-image apropos the purchase intention of global consumer brands from the perspective of consumers' cultural values. The brand “Apple” by Apple Inc. is used as a typical global consumer brand. The data of the Chinese market have been collected and the data analysis has been conducted to provide the results for the issues that this study tries to solve. The example of the Apple brand illustrates the interaction between self-congruity and consumer cultural values. The theoretical contribution of this study will be a new self-congruity model regarding consumption cultural issues that could be used in various domains of global consumer brands and provide recommendations to benefit global firms in adapting their positioning strategies and brand portfolios.

Theoretical Background

Self-congruity

The term self-congruity is a common use of self-image congruence (Sirgy et al., 2008). It plays an important role in both pre- and post-purchase behaviours (Johar & Sirgy, 1991). Self-image congruence theory claims that consumer purchasing behaviours are based on products and brands' symbolic values as well as functional properties (Aaker, 1997; Bhat & Reddy, 1998; Dennis et al., 2002; Hsieh, 2002; Kapferer, 1998; Kwak & Kang, 2009; Levy, 1959; Markus & Wurf, 1987; Sheth et al., 1991). Consumers also tend to portray images that match who they are and who they wish to be (Sirgy, 1985b). Considering self-congruity is grounded in the self-concept theory, self-congruity can accordingly also be classified as actual self-congruity and ideal self-congruity, in terms of the relationships between brand image and self-concept.

Self-congruity has a significant influence on a variety of consumer behaviour. Consumers who purchase products do so not only for utilitarian purposes, but also for self-expressive benefits (Sirgy et al., 2008). The studies suggest that the greater the self-congruity of brand image and actual self-image, the greater the satisfaction of self-consistency needs; this in turn, enhance consumers positive attitudes toward the brand (Graeff, 1996; Johar & Sirgy,

1991; Sirgy, 1982, 1985a, b). On the other hand, the greater the self-congruity of brand image and ideal self-image, the greater the satisfaction of self-esteem needs, which enhances the chances of changing consumer attitudes, in turn, enhancing their positive attitudes toward that brand (Johar & Sirgy, 1991; Nolan & Harold, 2010; Sirgy, 1982, 1985a, b). In this sense, some particular brands can help consumers re-define their self-images (Ericksen & Sirgy, 1992), because consumers are attracted to the brands that have symbolic images most similar to their ideal self-concept (Kwak & Kang, 2009). Once image congruency is decided, consumers are more likely to consistently choose the products that match their actual or ideal self-perceptions (Sirgy, 1985b). Moreover, the studies clearly present a significant relationship between self-congruity and purchase intention as consumers tended to purchase the products whose images are closer to their own (Hoelter, 1983). Ericksen and Sirgy (1989) emphasized that self-congruity influences brand preference, purchase intention, ownership, usage, and loyalty to specific products. Hence, we can make the following assumption.

Hypothesis 1: the self-congruity of the brand Apple has positive effects on its consumers' purchase intention.

Understanding self-congruity in the context of consumer culture

Consumer goods and services can deliver significant satisfaction and dissatisfaction in people's lives, so that the satisfactory self-concept through consumption will be enhanced with the proper collection of material products (Wright et al., 1992). Moreover, consumer goods refer to products that can be consumed (Arnould & Thompson, 2005). Considering self-concept is one of two components of self-congruity, and materialism is one of the important domains of consumer cultural values, in this sense, it builds a linkage between consumer culture and self-congruity.

Regarding the theory of consumer culture, there is no consensus on the definition of consumer culture (Arnould & Thompson, 2005; McCracken, 1988). According to Arnould and Thompson (2005), it rather refers to a group of theoretical perspectives that focus on the dynamic relationships between consumer behaviour, the market, and cultural implications. Similarly, Slater (1997) summarised those perspectives by stating that consumer culture started with a broad use of consumer goods in the people's daily lives across all social structures; consumption was therefore inspired by the desire of possession for the new products. The culture could eventually be formed and bonded through the establishment of infrastructures, corporations, and performances; this benefits from the new markets, such as the increasing of shopping and marketing activities (Slater, 1997). Furthermore, Usunier (1996) deemed that consumption tightly links to lifestyles and culture, as it seems that consumer culture centres around consumption. For example, consumers would like to purchase new products because innovative consumers look for new experiences to fulfil their needs via new consumption (Steenkamp & Gielens, 2003), and new products play a significant role to level up consumption (Ritzer, 2004). This may indicate a linkage between innovativeness to self-concept and purchase intention. Another example also links ethnocentrism to the consumer's attitude towards foreign products. Previous studies demonstrate that ethnocentric consumers hold positive attitudes towards local brands, and they are more willing to purchase domestic brands in developed countries (Netemeyer et al., 1991; Sharma et al., 1995; Shimp & Sharma, 1987; Steenkamp & de Jong, 2010), but it might not be the case in developing countries (Wong et al., 2008; Zhang, 1996).

The above ideals may hence be the reason why Slater (1997) called consumer culture the culture of 'consumption'. Consumer culture indicates a social arrangement where the relationships between day-to-day culture and social resources, as well as between the meaningful lives and the symbolic or material possessions which consumers rely on, are mediated through marketplaces (Arnould & Thompson, 2005). It is consistent with Firat (1997) that contemporary/post consumers seek meaningful experiences in their consumption lives, as well as constructing their self-images within their consumption experiences due to the trend of globalisation. The dominant mode of consumption is thus mentioned in the definition of 'consumer culture' that consists of firms' collective actions with regards to their marketing activities (Holt, 2002). Moreover, capitalism requires interdependence between cultural frameworks and market prerogatives in order to work properly, which influences how people become conversant with a market's offerings and interact within it (Holt, 2002). This idea bridges the gap between the culture of consumption and the symbolic values of products which have significant influence on brand/product image and in turn, on self-congruity.

Consumer culture is bound with modernity (Featherstone, 2007). Global consumers seek consumption based on modernity, namely cultural modernisation (Holton, 2000). In other words, consumers do not merely consume for

the utilitarian purchases, they also consume for symbolic meanings, such as self-satisfaction. Similarly, Tsai (2005) refined the argument from the previous studies (Belk, 1995; Brown, 1995, 1997; Firat & Venkatesh, 1997; Fischer, 2000; Fournier, 1991, 1998; Hogg et al., 2000; Holt, 1997; Kleine III et al., 1993; Voase, 2002) that contemporary consumer behaviour associated with post-modernity as a socio-cultural phenomenon, because one involved in consumption pursues an identity of themselves and culture, not only trying to fulfil basic needs. It is assumed that the purchase behaviour of contemporary consumers mainly focuses on products' symbolic meanings in the relation of self-concept and cultures, through the view of social-cultural symbolism; brands in consumer culture nowadays are highly related to producing symbolic meaning in the process of defining one's self to construct self-concept (Tsai, 2005). From this point view, the symbolic meanings of products play an important role in both consumer culture and in the process of forming self-congruity.

Additionally, one crucial element of constructing self-congruity is attitudes towards brands/products, revolving around the notion of brand attitudes significantly influencing the dynamics of creating brand image, and brand image is measured by attitudes towards brands/products in many self-congruity studies (e.g. Ericksen, 1996; Faircloth et al., 2001; Sirgy, 1982; Sirgy & Su, 2000). This is also consistent with Keller's (1993) conceptualised attitude toward brand/product as a part of brand image. On the other hand, Steenkamp and de Jong (2010) examined the effects of cultural values on attitudes toward local and global products, since cultural values have significant influence on attitudes, in turn, on consumer behaviour (Adler & Gundersen, 2008). Steenkamp and de Jong (2010) argued that consumers try to discover meanings in their lives via consuming products recognised internationally and beyond their individual national cultures. Consumers enjoy the homogenisation of consumer culture, which has benefited from the global economy and the development of global companies (Alden et al., 1999). As a result, consumer cultural values, especially for innovativeness and materialism, have a significant effect on attitudes towards global products (Steenkamp & de Jong, 2010). Considering the significance of attitudes towards brands/products on brand image, it could be assumed that consumer cultural values may influence self-congruity, at least indirectly. However, as mentioned previously, most studies of self-congruity regarding cultural issues employ the national cultural frameworks. Hence, there is a lack of empirical evidence to attest this relationship and it needs to be tested.

Consumer-cultural values

Consumer culture is highly dynamic and subject to change (Slater, 1997). Ideas or values as cultural principles are the implication of cultural categories (e.g., time, space, and occasions), which could transfer meanings to the product and the consumer respectively (Hoyer & MacInnis, 2009). Consumers also attempt to discover meaning in their lives throughout the consumption of products that are generally recognised as international and transcending individual national cultures (Steenkamp & de Jong, 2010). Hence, in the recent study of Steenkamp and de Jong (2010), consumer culture is classified into three categories of consumer-domain specific values, recognising that consumer culture deals with the consumption of products across times and space, consistent with Hoyer and MacInnis (2009), by considering materialism, innovativeness, nostalgia, ethnocentrism, and environmentalism. The first two consumer values are primarily related to products; nostalgia to the time perspective; and ethnocentrism and environmentalism to the social and physical context (Steenkamp & de Jong, 2010). The empirical evidence shows that materialism and innovativeness have a positive influence on consumers' attitudes towards global products, but nostalgia and ethnocentrism have a negative influence on consumers' attitudes towards global products (Steenkamp & de Jong, 2010). The last dimension, environmentalism, has no effect on consumers' attitudes towards global brands (Steenkamp & de Jong, 2010). Based on the literature review in the previous section, and considering the tight relationship between consumers' attitudes and self-congruity, we can therefore make an assumption that consumer-cultural values will significantly influence self-congruity. Accordingly, we have made the following hypotheses below. The conceptual model is shown in Figure 1.

Hypothesis 2: materialism significantly influences self-congruity of the brand Apple.

Hypothesis 3: innovativeness significantly influences self-congruity of the brand Apple.

Hypothesis 4: nostalgia significantly influences self-congruity of the brand Apple.

Hypothesis 5: ethnocentrism significantly influences self-congruity of the brand Apple.

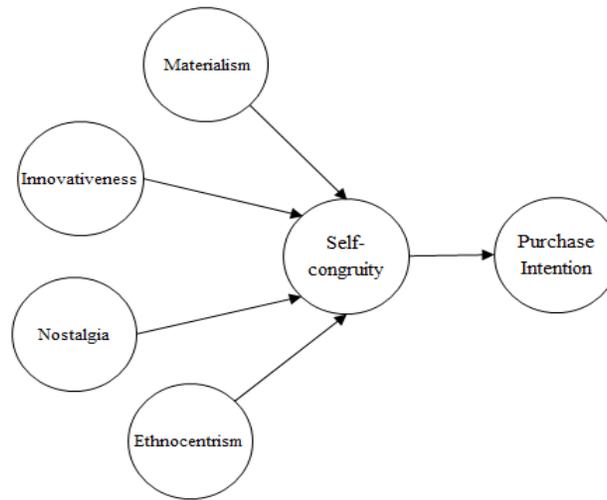


FIGURE 1: CONCEPTUAL MODEL OF THE BRAND APPLE

Methodology

This research primarily used cross-sectional data collection. The study was conducted using one survey as a pre-test to identify the appropriate attributes of brand/self-image from a pool of 50 brand image attributes (Graeff, 1996) in order to measure image congruence. A combined technique of Likert rating and ranking was employed to make sure the right brand image attributes were chosen (Driesener & Romaniuk, 2006). One hundred fifty-two valid questionnaires were collected in the high streets (the primary business streets) of Manchester in the United Kingdom. Next, 20 brand image attributes were selected as image dimensions to measure brand image and self-image by using five-point Likert scales. The consumer cultural framework applied in this research was first testified in the work of Steenkamp and de Jong (2010) and was partially performed in his previous studies (Alden et al., 2006; Steenkamp et al., 1999) as a short-form version. This study follows the instruction of Steenkamp and de Jong (2010) and traces back to the original sources for each construct. The materialism dimension was measured by three scales taken from Richins and Dawson (1992). The innovativeness value was measured by three scales take from Steenkamp and Richins (2003). The study measured nostalgia, consumer ethnocentrism, and consumer environmentalism with two scales for each one of them taken from Holbrook (1993), Shimp and Sharma (1987), and Grunert and Juhl (1995), separately. A five-point Likert scale was applied and rated by participants so as to measure national-cultural values and maintain the consistency. Purchase intention was also measured using a five-point Likert scale. The final questionnaire was conducted in high streets of the four cities (Beijing, Guangzhou, Shanghai, and Shenzhen) in China. Eventually, 624 valid questionnaires were collected. The study used Structural Equation Modelling (SEM) with AMOS 20 statistical package to test the hypotheses. The estimation techniques of SEM can be decomposed into two stages: the measurement and structural models (Hoyle, 1995). After confirmatory factor analysis (CFA) was conducted to confirm the measurement models, SEM was utilised to check the structural models and test Hypotheses 1-6, whilst confirming relationships among observed and latent variables, moving beyond regression to gain additional insight.

Data Analysis

CFA of measurement model

The correlation analysis was firstly conducted in order to examine the relationships between each brand image attribute and consumers' self-image. Only the pairs of image attributes (brand image and actual/ideal self-image) that had significant relationships were selected. Sixteen image attributes were selected followed by the calculation of self-congruity (Ross, 1971; Sirgy, 1982, 1985b; Sirgy et al., 1997; Sirgy et al., 1991) for each brand. After testing the

original measurement model, the model generated an unsatisfied outcome. The normed chi-square ($\chi^2/DF=3.560$) achieved the acceptable level of 5. The goodness-of-fit index (GFI) reached the good fit threshold of 0.95, scoring 0.961. The adjusted goodness-of-fit index (AGFI) was 0.930, meeting the good fit level of 0.90. The values of standardised root mean square residual (SRMR) was 0.0565 and root mean square error of approximation (RMSEA) was 0.064, both less than 0.08 but greater than 0.05. However, normed-fit index (NFI) did not pass the acceptable level of 0.90, scoring only 0.876. Comparative fit index (CFI) just reached the acceptable level of 0.90, scoring 0.906.

The measurement model therefore needs to be modified. Based on the output of AMOS, the standardised factor loadings of both factors of innovativeness and one factor of nostalgia were less than 0.05. We dropped off one factor of innovativeness and the dimension of nostalgia. The values of all the model fit indices ($\chi^2/DF=1.903$, GFI=0.986, AGFI=0.969, SRMR=0.292, RMSEA=0.038, NFI=0.958, CFI=0.979) indicated that the modified model had a good fit to the data. The reliability and validity of the measurement model were also tested. Cronbach's alpha values and the composite reliability of all the constructs of consumer-cultural values and self-congruity were above 0.70. This demonstrated high construct reliability and internal consistency. The values of average variance extracted (AVE) were above 0.5. For each construct, the values of maximum shared squared variance (MSV) and average shared variance (ASV) were less than the AVE. Hence, these results indicated satisfactory convergent validity and discriminant validity in the model.

Assessment of structural model

Next, the study established the initial structural model based on the results of CFA. The assessment of the initial structural model presented satisfactory results of model fit indices ($\chi^2/DF=3.159$, GFI=0.969, AGFI=0.947, SRMR=0.0658, RMSEA=0.059, NFI=0.900, CFI=0.928). Based on the modification indices of AMOS, it indicated there was a relationship from innovativeness and purchase intention. Thus, we drew a path from innovativeness and purchase intention in order to make better fitness. The results of model fit indices ($\chi^2/DF=2.819$, GFI=0.973, AGFI=0.953, SRMR=0.0622, RMSEA=0.054, NFI=0.913, CFI=0.942) indicated that the modified structural model had a satisfactory and better fitness to the data.

As a consequence of a newly added path from the value of innovativeness to purchase intention, an additional hypothesis was introduced for the modified structural model below.

Hypothesis 6: Innovativeness significantly influences the Chinese consumer purchase intention toward the Apple brand.

Hypothesis test

In order to test the hypotheses, the study therefore examined the significances of the path coefficients estimates. The path coefficient from self-congruity to purchase intention was 0.221 ($t=3.167$, $p<0.01$), which supported Hypothesis 1. The path coefficient from materialism to self-congruity was 0.159 ($t=2.123$, $p<0.05$). Thus, Hypothesis 2 was supported. Hypothesis 3 was also supported, because the path coefficient from innovativeness to self-congruity was 0.227 ($t=2.905$, $p<0.05$). The study discovered that nostalgia did not have significant effects on self-congruity. Hence Hypothesis 4 was rejected. The path coefficient from ethnocentrism to self-congruity was -0.095 ($t=-1.511$, $p=0.131$), which showed that the value of ethnocentrism did not have significant influence self-congruity. Hypothesis 5 was therefore rejected. Finally, the newly added path from innovativeness to purchase intention was 0.196 ($t=3.556$, $p<0.001$). Therefore, Hypothesis 6 was supported.

Discussion

Consistent with Hoelter (1983) and Ericksen and Sirgy (1989), a strong support has been found for the relationship between self-congruity and purchase intention of the brand Apple. The findings demonstrate that the image congruence of Apple's brand image and its consumers' self-images positively influence the Chinese consumers' purchase intention; this means that the higher degree of the congruence between Apple's brand image and its consumers' self-images, the more Chinese consumers desire to purchase Apple's products. The second hypothesis was to show how the value of materialism impacts the self-congruity of the brand Apple. Consistent with the literature (Arnould & Thompson, 2005; Steenkamp & de Jong, 2010; Wright et al., 1992), the results present that there is a

significant and positive relationship between materialism and self-congruity with the Apple brand. Hence, this outcome indicates that the stronger Chinese consumers hold their belief in the value of materialism, the higher their degree of self-congruity it will be. Moreover, the same result is seen in the relationship between innovativeness and self-congruity. The results are consistent with Steenkamp and de Jong (2010) and Steenkamp and Gielens (2003), as innovations significantly and positively influence self-congruity of the brand Apple, which means the image congruency of the Apple brand is higher when Chinese consumers' dispositional innovativeness is stronger. The results do not support Hypotheses 4 and 5; this means that the values of nostalgia and ethnocentrism do not have significant effects on self-congruity. Nostalgia refers to people believing things were better in the past (Holbrook, 1993). The results implicate that Chinese consumers might not hold positive and strong attitudes toward this value. Ethnocentrism means that consumers believe it would be wrong to purchase foreign products because it would hurt the local economy (Steenkamp & de Jong, 2010). However, the results show that there is no significant relationship between ethnocentrism and self-congruity. Hence, this outcome is consistent with Wang and Chen (2004) and Zhang (1996), as country of origin does not seem to influence Chinese consumer's product evaluation, attitude to US brands, and purchase decisions. In addition, the impact of ethnocentrism is mitigated by quality perception of consumer conception values in developing countries (Wang & Chen, 2004). Finally, consistent with Ritzer (2004), new products can raise consumption to a higher level. Consumers like to purchase new products because innovative consumers seek new experiences to fulfil their needs via new consumption (Steenkamp & Gielens, 2003). Therefore, the study discovers that innovativeness does have significant and positive impacts on the purchase intention of Chinese consumers of the Apple brand, which means the more innovative the Chinese consumers are, the higher the image congruency will be between Apple's brand image and its consumers' self-image.

The outcomes will have important managerial implications for multinational marketers entering developing countries and will benefit global firms in adapting their positioning strategies and brand portfolios. For instance, Chinese consumers have higher self-congruity towards electronic products when they hold stronger attitudes of materialism and innovativeness. Global companies will therefore have a better understanding of why Chinese consumers buy such products, and how they can better focus on the right market segmentation. They will also know nostalgia and ethnocentrism do not impact self-congruity, so they would not spend as much on marketing campaigns by targeting these values. Our empirical findings can also help global firms evaluate the receptivity of consumer-cultural values in China in order to establish better positioning strategies of their brands.

Conclusion and Limitations

Based on a review of the previous literature, this study has proposed a conceptual model to examine the effects of consumer-cultural values on self-congruity of the Apple brand toward purchase intention. Twenty self-image and brand-image dimensions have been selected using pre-tests. The analytical technique of SEM with AMOS 20 was applied. The findings suggest that the values of materialism and innovativeness have significant and positive effects on the self-congruity of the Apple brand. The value of innovativeness also directly influences the purchase intention of Chinese consumers of the Apple brand. However, the values of nostalgia and ethnocentrism have much less significant impacts on the self-congruity of the Apple brand. The findings can provide a new insight into how consumer culture influences self-congruity in the Chinese market. Further research could extend this study to other brands or product categories. It could also examine the same brand across other cultures. This study did not consider demographical factors such as gender, age, education, or incomes.

References

- [1] Aaker, J. L. (1997) "Dimensions of brand personality", *Journal of Marketing Research*, Vol. 34 No. 3, pp. 347-356.
- [2] Adler, N. J. and Gundersen, A. (2008) *International dimensions of organizational behavior*, 5th edn, Mason, OH: Thomson Learning, Inc.
- [3] Alden, D. L., Steenkamp, J.-B. E. M. and Batra, R. (1999) "Brand positioning through advertising in Asia, North America, and Europe: the role of global consumer culture", *Journal of Marketing*, Vol. 63 No. 1, pp. 75-87.
- [4] Alden, D. L., Steenkamp, J.-B. E. M. and Batra, R. (2006) "Consumer attitudes toward marketplace globalization: Structure, antecedents and consequences", *International Journal of Research in Marketing*, Vol. 23 No. 3, pp. 227-239.
- [5] Arnould, E. J. and Thompson, C. J. (2005) "Consumer Culture Theory (CCT): Twenty Years of Research", *Journal of Consumer Research*, Vol. 31 No. March, pp. 868-883.
- [6] Belk, R. W. (1995) "A hyperreality and globalisation: culture in the age of Ronald McDonald", *Journal of International Consumer Marketing*, Vol. 8 No. 3/4, pp. 23-37.
- [7] Bhat, S. and Reddy, S. K. (1998) "Symbolic and functional positioning of brands", *Journal of Consumer Marketing*, Vol. 15 No. 1, pp. 32-43.
- [8] Brown, S. (1995) *Postmodern marketing*, London: Routledge.
- [9] Brown, S. (1997) *Postmodern marketing two: telling tales*, Routledge: London.
- [10] Dennis, C., Murphy, J., Marsland, D., Cockett, T. and Patel, T. (2002) "Measuring image: shopping centre case studies", *International Review of Retail, Distribution & Consumer Research*, Vol. 12 No. 4, pp. 355-373.
- [11] Driesener, C. and Romaniuk, J. (2006) "Comparing methods of brand image measurement", *International Journal of Market Research*, Vol. 48 No. 6, pp. 681-698.
- [12] Ericksen, M. K. (1996) "Using self-congruity and ideal congruity to predict purchase intention: a European perspective", *Journal of Euromarketing*, Vol. 6 No. 1, pp. 41-56.
- [13] Ericksen, M. K. and Sirgy, M. J. (1989) "Achievement motivation and clothing behavior of working women: a self-image congruence analysis", *Journal of Social Behavior and Personality*, Vol. 4 No. 4, pp. 307-326.
- [14] Ericksen, M. K. and Sirgy, M. J. (1992) "Employed females' clothing preference, self-image congruence, and career anchorage", *Journal of Applied Social Psychology*, Vol. 22 No. 5, pp. 408-422.
- [15] Faircloth, J. B., Capella, L. M. and Alford, B. L. (2001) "The Effect of Brand Attitude and Brand Image on Brand Equity", *Journal of Marketing Theory and Practice*, Vol. 9 No. 3, pp. 61-75.
- [16] Featherstone, M. (2007) *Consumer Culture and Postmodernism*, 2nd edn, Trowbridge, UK: Sage Publications.
- [17] Firat, A. F. (1997) "Globalization of Fragmentation - A Framework for Understanding Contemporary Global Markets", *Journal of International Marketing*, Vol. 5 No. 2, pp. 77-86.
- [18] Firat, A. F. and Venkatesh, A. (1997) "Liberatory postmodernism and the reenchantment of consumption", *Journal of Consumer Research*, Vol. 22 No. 3, pp. 239-267.
- [19] Fischer, E. (2000) "Consuming contemporaneous discourses: A postmodern analysis of food advertisements targeted toward women", *Advances in Consumer Research*, Vol. 27 No. 1, pp. 288-294.
- [20] Fournier, S. (1991) "Meaning-based framework for the study of consumer/object relations", *Advances in Consumer Research*, Vol. 18 No. 1, pp. 736-742.
- [21] Fournier, S. (1998) "Consumers and their brands: developing relationships theory in consumer research.", *Journal of Consumer Research*, Vol. 24 No. 4, pp. 343-373.
- [22] Graeff, T. R. (1996) "Using promotional messages to manage the effects of brand and self-image on brand evaluations", *Journal of Consumer Marketing*, Vol. 13 No. 3, pp. 4-18.
- [23] Grunert, S. C. and Juhl, H. J. (1995) "Values, environmental attitudes, and buying of organic foods", *Journal of Economic Psychology*, Vol. 16 No. 1, pp. 39-62.
- [24] Hoelter, J. W. (1983) "The Analysis of Covariance Structures: Goodness-of-Fit Indices", *Sociological Methods & Research*, Vol. 11 No. 3, pp. 325-344.

- [25] Hogg, M. K., Cox, A. J. and Keeling, K. (2000) "The impact of self-monitoring on image congruence and product/brand evaluation", *European Journal of Marketing*, Vol. 34 No. 5/6, pp. 641-667.
- [26] Holbrook, M. B. (1993) "Nostalgia and Consumption Preferences: Some Emerging Patterns of Consumer Tastes", *The Journal of Consumer Research*, Vol. 20 No. 2, pp. 245-256.
- [27] Holt, D. B. (1997) "Poststructuralist lifestyle analysis: conceptualizing the social patterning of consumption on post-modernity", *Journal of Consumer Research*, Vol. 23 No. March, pp. 326-350.
- [28] Holt, D. B. (2002) "Why do brands cause trouble? a dialectical theory of consumer culture and branding", *Journal of Consumer Research*, Vol. 29 No. 1, pp. 70-90.
- [29] Holton, R. (2000) "Globalisation's cultural consequences", *The Annals of the American Academy of Political and Social Science*, Vol. 570 No. 1, pp. 140-152.
- [30] Hoyer, W. D. and MacInnis, D. J. (2009) *Consumer Behaviour*, 5th edn, USA: South-Western.
- [31] Hoyle, R. H. (1995) *Structural Equation Modeling: Concepts, Issues, and Applications*, Thousand Oaks, Calif: Sage Publications.
- [32] Hsieh, M. H. (2002) "Identifying brand image dimensionality and measuring the degree of brand globalization: A cross-national study", *Journal of International Marketing*, Vol. 10 No. 2, pp. 46-67.
- [33] Jamal, A. and Goode, M. M. H. (2001) "Consumers and brands: a study of the impact of self-image congruence on brand preference and satisfaction", *Marketing Intelligence & Planning*, Vol. 19 No. 7, pp. 482-492.
- [34] Johar, J. S. and Sirgy, M. J. (1991) "Value expressive versus utilitarian appeals: when an why to use which appeal", *Journal of Advertising*, Vol. 20 No. 3, pp. 23-33.
- [35] Kapferer, J.-N. (1998) *Strategic Brand Management*, 2nd edn, New York and London: Kogan Page.
- [36] Keller, K. L. (1993) "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity", *Journal of Marketing*, Vol. 57 No. 1, pp. 1-22.
- [37] Kleine III, R. E., Kleine, S. S. and Kernan, J. B. (1993) "Mundane consumption and the self: A social-identity perspective", *Journal of Consumer Psychology*, Vol. 2 No. 3, pp. 209-235.
- [38] Kressmann, F., Sirgy, M. J., Herrmann, A., Huber, F., Huber, S. and Lee, D.-J. (2006) "Direct and indirect effects of self-image congruence on brand loyalty", *Journal of Business Research*, Vol. 59 No. 9, pp. 955-964.
- [39] Kuester, S., Hess, S. C., Hinkel, J. and Young, J. (2007) "Brands as Means of Self-Expression: A Cross-Cultural Study", 2007 ANZMAC Conference, December 2007, 1670-1678.
- [40] Kwak, D. H. and Kang, J.-H. (2009) "Symbolic purchase in sport: the roles of self-image congruence and perceived quality", *Management Decision*, Vol. 41 No. 7, pp. 85-99.
- [41] Levy, S. J. (1959) "Symbols for sale", *Harvard Business Review*, Vol. 37 No. July-August, pp. 117-24.
- [42] Markus, H. and Wurf, E. (1987) "The dynamic self-concept: a social psychological perspective", *Annual review of psychology*, Vol. 38 No., pp. 299-337.
- [43] McCracken, G. (1988) *Consumer Culture*, Cambridge: Polity Press.
- [44] Netemeyer, R. G., Durvasula, S. and Lichtenstein, D. R. (1991) "A cross-national assessment of the reliability and validity of the CETSCALE", *Journal of Marketing Research*, Vol. 28 No. 3, pp. 320-327.
- [45] Nolan, K. P. and Harold, C. M. (2010) "Fit with what? The influence of multiple self-concept images on organizational attraction", *Journal of Occupational and Organizational Psychology*, Vol. 83 No., pp. 645-662.
- [46] Richins, M. L. and Dawson, S. (1992) "A consumer values orientation for materialism and its measurement: Scale development and validation", *Journal of Consumer Research*, Vol. 19 No. 3, pp. 393-316.
- [47] Ritzer, G. (2004) *The McDonaldization of society*, Thousand Oaks, CA: Pine Forge Press.
- [48] Ross, I. (1971) "Self-Concept and Brand Preference", *The Journal of Business*, Vol. 44 No. 1, pp. 38-50.
- [49] Sharma, S., Shimp, T. A. and Shin, J. (1995) "Consumer ethnocentrism: a test of antecedents and moderators", *Journal of the Academy of Marketing Science*, Vol. 23 No. 1, pp. 26-37.
- [50] Sheth, J. N., Newman, B. I. and Gross, B. L. (1991) "Why we buy what we buy: a theory of consumption values", *Journal of Business Research*, Vol. 22 No. 2, pp. 159-170.
- [51] Shimp, T. A. and Sharma, S. (1987) "Consumer ethnocentrism: construction and validation of the CETSCALE", *Journal of Marketing Research*, Vol. 24 No. 3, pp. 280-298.
- [52] Sirgy, M. J. (1982) "Self-Concept in Consumer Behaviour: A Critical Review", *Journal of Consumer Behaviour*, Vol. 9 No. 3, pp. 287-300.

- [53] Sirgy, M. J. (1985a) "Self-image/product image congruity and consumer decision making", *International Journal of Management*, Vol. 2 No. December, pp. 49-63.
- [54] Sirgy, M. J. (1985b) "Using self-congruence and ideal congruence to predict purchase motivation", *Journal of Business Research*, Vol. 13 No. 3, pp. 195-206.
- [55] Sirgy, M. J., Grewal, D., Mangleburg, T. F., Park, J.-o., Chon, K.-S., Claiborne, C. B., Johar, J. S. and Berkman, H. (1997) "Assessing the predictive validity of two methods of measuring self-image congruence", *Journal of the Academy of Marketing Science*, Vol. 25 No. 3, pp. 229-241.
- [56] Sirgy, M. J., Johar, J. S., Samll, A. C. and Claiborne, C. B. (1991) "Self-congruity versus functional congruity: predictors of consumer behaviour ", *Journal of the Academy of Marketing Science*, Vol. 19 No. 4, pp. 363-375.
- [57] Sirgy, M. J., Lee, D.-J., Johar, J. S. and Tidwell, J. (2008) "Effect of self-congruity with sponsorship on brand loyalty", *Journal of Business Research*, Vol. 61 No. 10, pp. 1091–1097.
- [58] Sirgy, M. J. and Su, C. (2000) "Destination image, self-congruity, and travel behaviour: toward an integrative model", *Journal of Travel Research*, Vol. 38 No. 4, pp. 340-352.
- [59] Slater, D. (1997) *Consumer Culture & Modernity*, Cambridge, UK: Polity.
- [60] Steenkamp, J.-B. E. M. and de Jong, M. G. (2010) "A Global Investigation into the Constellation of Consumer Attitudes Toward Global and Local Products.", *Journal of Marketing*, Vol. 74 No. 6, pp. 18-40.
- [61] Steenkamp, J.-B. E. M. and Gielens, K. (2003) "Consumer and market drivers of the trial rate of new consumer products", *Journal of Consumer Research*, Vol. 30 No. 3, pp. 368-384.
- [62] Steenkamp, J.-B. E. M., Hofstede, F. t. and Wedel, M. (1999) "A cross-national investigation into the individual and national cultural antecedents of consumer innovativeness", *Journal of Marketing*, Vol. 63 No. 2, pp. 55-69.
- [63] Steenkamp, J.-B. E. M. and Richins, K. (2003) "Consumer and market drivers of the trial probability of new consumer packaged goods", *Journal of Consumer Research*, Vol. 30 No. 3, pp. 368-384.
- [64] Tsai, S.-p. (2005) "Utility, cultural symbolism and emotion: A comprehensive model of brand purchase value", *International Journal of Research in Marketing*, Vol. 22 No. 3, pp. 277–291.
- [65] Usunier, J. C. (1996) *Marketing Across Cultures*, UK: Prentice-Hall Europe.
- [66] Voase, R. (2002) "Rediscovering the imagination: investigating the active and passive visitor in the 21st century", *International Journal of Tourism Research*, Vol. 4 No. 5, pp. 391-299.
- [67] Wang, C. L. and Chen, X. (2004) "Consumer ethnocentrism and willingness to buy domestic products in a developing country setting: testing moderating effects", *Journal of Consumer Marketing*, Vol. 21 No. 6, pp. 391-400.
- [68] Wong, C. Y., Polonsky, M. J. and Garma, R. (2008) "The impact of consumer ethnocentrism and country of origin sub-components for high involvement products on young Chinese consumers' product assessments", *Asia Pacific Journal of Marketing and Logistics*, Vol. 20 No. 4, pp. 455-478.
- [69] Wright, N. D., Claiborne, C. B. and Sirgy, M. J. (1992) "The effects of product symbolism on consumer self-concept", *Advances in Consumer Research*, Vol. 19 No. 1, pp. 311-318.
- [70] Zhang, Y. (1996) "Chinese consumers' evaluation of foreign products: the influence of culture, product types and product presentation format", *European Journal of Marketing*, Vol. 30 No. 12, pp. 50-68.

B2B vs B2C, which different approaches to social media marketing. Empirical evidence from the Marche Region

Luca Marinelli, lucamarinelli@gmail.com

Laura Moscatelli, l.moscatelli@univpm.it

Università Politecnica delle Marche, “Giorgio Fuà” Faculty, Italy

B2B vs B2C, which different approaches to social media marketing. Empirical evidence from the Marche Region

Abstract

In Italy the adoption of social media for marketing purposes is a fairly recent phenomenon. Web 2.0 and social media have spread very quickly among users and businesses often do not yet fully grasp all opportunities. The social universe is extremely diverse: there are several tools that differ in structure, rules and functionality, it is therefore strategically select those platforms that are more in line with the company's profile and with the image that the brand wants to deliver online. In this work we analyze the presence of any differences in approach to social between B2B and B2C businesses. The aim of this research is to investigate whether there is a correlation between the adoption of a tool-set of social platforms and the business area of the company. The study was conducted on a sample of companies in the Marche Region.

Introduction

Recently, the Web has established itself as one of the pillars to consider in order to create innovative marketing strategies. In particular, the phenomenon known as Web 2.0¹ has had the greatest impact on business (Jussila, Karkainen, Aramo-Immonen, 2014). Web 2.0 is configured, in fact, as the set of innovations that took place on the net, thanks to the introduction of new tools and features, have changed how to access and use.

A key element of revolution introduced by Web 2.0 are definitely social media. They are defined by Kaplan and Haenlein (2010) as a group of internet-based applications based on the ideologies and technologies of Web 2.0 and that allow the creation and sharing of User Generated Content (UGC) (Smith, Fisher & Yonjian, 2012). This point of view is of fundamental importance for understanding the real revolution in marketing: End users now play a crucial role in low the content generated by them trasmetted on the Web, are able to influence perceptions and consumer trends, elements that remained under the control of marketers until few years ago (Mangold & Faulds, 2009). This phenomenon has spread more quickly from the user side compared to that of companies, which have spent more time in overseeing social media and exploit them to their advantage. Considering the Italian situation emerges that in 2012 85% of Internet users (€ 24.3 million) regularly access social media² and only 37% of companies have integrated these tools into their marketing mix³.

Looking at this context, we can say that social media platforms are the place where most of the information is produced and managed by end users. The panorama of social media such as, Facebook, YouTube, Twitter and LinkedIn, is very large and each platform is distinguished by features, architecture and standards that affect how you can use by businesses (Kietzmann et al., 2011, Smith , Yongjian & Fisher, 2012).

It's therefore clear that the adoption and use of these tools may take different modes and intensity depending on the type of relationship that exists between the company and its customers. It is now clear that there are types of businesses more likely to use social media as a marketing tool; this is one of the reasons why much of the research focuses on business-oriented business to consumer (B2C Michaelidou, Siamagka & Christodoulides, 2013).

Referring to the B2B sector, although many authors identified considerable advantages in the adoption of social media for this type of company (Shin, 2009; Safko, 2010; Wollan & Smith, 2010; Barlow & Thomas, 2011) the research is still scarce and fragmented. The purpose of this work is to provide a contribution to the literature on the comparison between B2C and B2B context of the adoption of social media for marketing purposes.

¹ The term Web 2.0 was coined in 2004 by Dale Dougherty of O'Reilly Media vice president during a brainstorming session between O'Reilly and MediaLive International.

² <http://www.iab.it/news/social-media-marketing-strumento-strategico-di-business.-italiani-sempre-pi-presenti-sui-social-network-per-comunicare-seguire-attualit-e-programmi-tv-radio.html>

³ eCircle – Mediacom 2013

There are questions, in particular, on whether or not a propensity to choose a particular set of social media, depending on the orientation of the business. To do this, we have identified a sample of 140 manufacturing firms from the Marche region in Italy, of which 70 B2B and B2C 70 and was made a mapping of their social media presence most popular Facebook, LinkedIn, Youtube, Twitter, Pinterest and Instagram.

The analysis could provide a first support for future research on this particular topic as well as insights about the need for a more holistic view of social media marketing.

Social media marketing, the delay of B2B

As stated earlier, research on social media marketing in recent years has developed focusing particularly on the relationship between these tools and business to consumer oriented. Blackshaw and Nazzaro (2004) are among the first that identify the marketing potential of social media in the literature, they describe the social networks as a set of new sources of online information created, disseminated and consumed by consumers with the purpose of keeping abreast of products, brands, services, and personality problems.

According to Mangold and Faulds (2009), social media can be considered as a hybrid element of the communication mix as they have elements of traditional communication, such as the interaction between brand, and consumer to innovative features, such as the expansion of word of mouth, often referred to as eWoM (Bulearca, 2010), a key element of many digital marketing campaigns.

There are also many the works that studied the marketing opportunities provided by social media. From market research of Breslauer and Smith (2009) and e-Marketer⁴ (2010) emerges that firms are using social media to build direct relationships with consumers, increase traffic to the website, identify new business opportunities, build communities, disclose the contents and collect feedback from their customers. Other business processes, with a broader view of social media, have been added to support such as customer relationship management (Kim et al., 2010; Harris & Rae, 2009; Hawn, 2009), the management of the network both internal and outside the company (Kim et al., 2010;-Leader Chivéé et al., 2008; Misner et al., 2008) and finally the recruitment (Millard, 2007).

At the same time there are studies that address the different barriers that prevent or slow the process of adoption of social media by businesses (Schwarz-DuPre, 2006; Chen and Wellman, 2009; Belo et al., 2013). These barriers are often recurring and are of endogenous origin, such as resistance to change, lack of internal resources, both human as well as economic use in the management of social media.

Because in this work we try to identify some difference of approach to social between B2B and B2C, we should pause on what the literature says about it. The common view is that on the one hand, the delay of B2B businesses is evident, on the other hand, is increasing the interest of B2B marketers than social media (Michaelidou et al., 2011; Jussila et al., 2014). According to one study, only 5% of B2B marketers consider social media marketing an integral part of their marketing mix, 17% do not use any type of social media and 58% is considered the beginning of a strategy for social media marketing (Gianmarco & Gregoire, 2012).

The Social Media landscape

The universe of social media is wide and varied, so talk of social media marketing without taking into account the many differences that exist between the instruments would be simplistic and could be harmful in the planning phase of a digital marketing strategy.

As stated earlier, social media is a set of tools and may differ from each other in structure, network, how to use and interaction. Haenlein and Kaplan (2010) carried out a classification of social tools on the basis of the combination of two dimensions (table 1):

- Social presence, media richness: based on social presence theory (Short, Williams & Christie, 1976) and Media richness theory (Daft & Lengel, 1986). According to these theories, the media differ in the degree of "social

⁴ e-Marketer (2010). "Leveraging best practices for social media, November 23 2010". Available on <http://www.emarketer.com/Article.aspx?R=1008057>

presence" that must be used to interact with a given media. A media may also differ for the wealth of content that you can communicate with it, or the amount of information that can be transmitted to the inside in a given period of time.

- Self-presentation (Goffman, 1959), Self-disclosure: the ability to provide information about yourself and build your own image with the aim of positively or negatively influence the perceptions of others towards themselves. Such information may be disclosed either consciously or unconsciously (Self disclosure). Table 1. Classification of Social Media by social presence/media richness and self-presentation/self-disclosure.

TABLE 1: CLASSIFICATION OF SOCIAL MEDIA BY SOCIAL PRESENCE/MEDIA RICHNESS AND SELF-PRESENTATION/SELF-DISCLOSURE

		Social presence/Media Richness		
		Low	Medium	High
Self-presentation/ disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds

Source: Kaplan & Haenlein, 2010

In Table 1 are shown the main types of social media, in this case allocated on the basis of the level of information / interaction connected to them.

Below we provide a definition of social media considered in this work (Gundecha & Liu, 2012):

- Online social networking: they are web-based services that allow individuals and communities to connect with friends, or coming from real size online. Users interact through status updates, comments, content sharing, private messages, etc.. The most popular social networking are Facebook, LinkedIn and MySpace.
- Blogs: mix of the words web and log, the blog is, to all intents and purposes, an online journal. In these web pages bloggers can publish textual content often enriched by multimedia content such as video or animated gif. Blogs can be maintained by an individual or a community. Among the most popular blogging platforms are Wordpress and Tumblr.
- Microblog: has the same features but with the limitations of the blog for content, for example, Twitter allows you to post text messages of up to 140 characters.
- Media sharing: in these platforms, users share, view and comment on multimedia content such as video, image and audio content. Social media reference are YouTube, Instagram, Pinterest, and Soundcloud.

Social Media analyzed

In this section we provide a brief description of social media considered in this work, trying to identify the role that each instrument can play within a digital marketing strategy. Social media identified for research are the ones most used by companies for marketing purposes⁵.

With regard to the social networks have been chosen Facebook and LinkedIn, for the category of microblog Twitter and was chosen for the platforms of media sharing YouTube, Pinterest and Instagram.

Facebook

⁵ Social Media Examiner, 2014, "2014 Social Media Marketing Industry Report. How Marketers Are Using Social Media to Grow Their Businesses" May 2014

It 'a social networking service founded in 2004. With over 1 billion monthly active users is the most popular social network in the world⁶. Users create personal profiles whose interface appears in the form of bulletin board or profile page where you can insert the contents of various kinds such as comments (status updates), images, videos and links to external content.

Users interact expressing appreciation to the content (like) to share their time, or by leaving a comment. They can get in touch with friend requests. On this platform, companies can create fan pages related to their brands and interact with users (fans) who come to this page.

There are many additional services that have appeared over the years on Facebook, such as Graph Search⁷, the ability to use the hashtag⁸ or the ability to integrate their pages with external applications produced by other developers. The contribution of research to the study of the use of Facebook for brands is still limited (Zhang, Sung and Lee, 2010; Smith, Yonjian and Fischer, 2012).

LinkedIn

Is the largest professional social network with over 200 million members⁹ and operates in over 200 Countries. Through this platform, users are able to manage and share their professional identity.

According Bonson and Bednárová (2013) the most significant contribution that gave LinkedIn businesses is the ability to expand their recruitment activities at an affordable cost (Lybaert, 2002). Several studies have focused on the impact or effects of the instruments LinkedIn many of which are related to the users' profile (Breitbarth, 2012; Guillory and Hancock, 2012).

YouTube

It 'a platform for media sharing founded in 2005. Users posting videos which can be commented and shared on other social media. Users can organize own videos by creating personal "channels".

According to research conducted by Forrester (2012), video content online is the most enjoyed by consumers. In a commercial context, over 50% of users on the web prefer watching a video rather than reading a review or a blog article. Also according to the research, watch videos produced by the brand is the third mode more frequently with which users interact with businesses.

In addition to being a platform dedicated to entertainment content, YouTube is an excellent resource to display information contents as a tutorial or instructions. It should be emphasized that while the videos get more views are professionally produced (Kruitbosch and Nack, 2008), the ones that get the most comments are produced by end-users (Burgess and Green 2009).

Twitter

It's the only platform that has as its textual limitation 140 characters per message. Its attractiveness comes from the ability to read the news and the latest information. The micro-blogging service, founded in 2006, allows marketers to send these short messages (tweets) to a network of followers (followers) at any time and with a myriad of electronic media (Twitter, 2013).

⁶ In March 2013, active users on Facebook are 1 billion and 110 million Source: "Facebook Reports First Quarter 2013 Results". Facebook. Retrieved May 2, 2013.

⁷ Facebook Graph Search is a semantic search engine that was introduced by Facebook in March 2013. Is designed to provide answers to user queries in the form of natural language, rather than as a list of links. The function combines the Graph Search data acquired by Facebook users and external data in a single search engine that provides search result user-specific.

⁸ The hashtag is a tag used in some type of social networks to create labels. They are made up of words (or combinations of words concatenated) inserted in the comments preceded by the # (pound). They are mainly used as tools to allow web users to more easily find a message related to a topic and participate in the discussion, but also to encourage them to participate in the discussion on a topic indicated as interesting.

⁹ <http://blog.linkedin.com/2013/01/09/linkedin-200-million/>

Each user can also share a tweet (re-tweet) or replicate by writing directly to the user concerned. Also in this social media, the use of the hashtag is very important and frequent. Jansen et al. (2009) noted that 19% of brand-related tweets is, however, almost half of these cases, the brand is not the central element of the content of the post. Tweets where the brand is the focal point, users express opinions about the brand or seek information regarding products or services offered.

New Tools

In order to better represent the actual scenario of social media marketing, it was considered appropriate to include in the object of study, two social media Pinterest and Instagram. Despite being relatively new - both were launched in 2010 - has witnessed a rapid spread among users¹⁰ mainly due to the growth of mobile, which has made them attractive and interesting tools for brands (McNely, 2012).

Both social media platforms in question are of image sharing through which users share images and photos taken with mobile devices often. Through these social, brands are able to convey their identity by associating often intangible elements such as style, culture, mission and corporate vision.

Faber (2002) introduces the concept of image-power to describe the ability of a brand to communicate its image to the outside so fixing it in the imagination of consumers.

- Pinterest: founded in 2010 by Evan Sharp, Ben Silbermann and Paul Sharra is a social media dedicated to photos sharing, videos, and images. Users can load, save, sort, or manage images through the use of virtual "pins" through which you can collect content in "bulletin boards" that act as containers and often are organized thematically. Each user can also share in turn (re-pin) content found in message boards of others. Pinterest offers dedicated services to companies such as Pinterest for business, a service that helps businesses in creating a profile to be used for marketing purposes.
- Instagram: is configured as a mobile application whose operation reflects the logic of social media. Instagram allows users to take photos, apply filters and share them on the platform and on all major social media. The app is available for media with the operating system iOS, Android and Windows Phone. Even in the use of this platform hashtag is a basic function.

Methodology

The aim of the research is to see if there is a specific propensity of companies to the use of a particular toolset social platforms, depending on the orientation to the business of the enterprises themselves: Business to Consumer (B2C) companies would be more oriented likely use of certain social networks, such as Facebook, Pinterest and Instagram, while Business to Business (B2B) companies would be oriented more geared towards the use of social networks such as LinkedIn, Youtube and Twitter.

The survey was conducted over a period of three months (from January 2014 to March 2014) on a sample of 140 firms randomly drawn, drawing on the ranking of the leading enterprises of the Marche year, 2013, prepared by the Centre Enterprise Foundation Aristide Merloni¹¹.

Identified the sample of firms, we proceeded with the analysis of the presence of the same on social networks identified by the inquiry in the search engines.

¹⁰Pinterest founded in 2010 in 2013 reached 242 million members with an increase of 150% compared to 2012 (Global Web Index). Instagram App, also launched in 2010, reached 150 million monthly active users in 2013 (Wikipedia).

¹¹ The Aristide Merloni Foundation was founded in 1963 with the aim of supporting the institutional creation of new businesses in the Marche region. Since 1986, with the "Observatory Companies", the Foundation collects and processes the financial statements of the leading enterprises of the Marche, organizing the data of over two hundred companies in a ranking accompanied by comments on the economic and financial system. Drawing on data from the observatory, is annually compiled a list of the main companies of the Marche.

Social networks are being analyzed Facebook, Twitter, LinkedIn, YouTube, Pinterest and Instagram, and, as shown above, are the most representative type adopted by marketers (Socialmediaexaminer 2014).

Results

The results reveal that 67% of the analyzed sample is present on at least one social media, specifically the 48% of businesses have a page on the social network Facebook, the 39,29% have a corporate Youtube channel; 35, 71% have a company profile on LinkedIn, the 31,43% have a Twitter profile, 17% of companies have an official profile on Pinterest, and finally 7,14% has an official profile on the app Instagram:

TABLE 2: THE PRESENCE OF BUSINESS ON THE SOCIAL NETWORK

SOCIAL MEDIA SITE	TOT	%	B2B	B2C
FACEBOOK	67	48%	19	48
LINKEDIN	50	35,71%	16	34
YOUTUBE	55	39,29%	18	37
TWITTER	44	31,43%	14	30
PINTEREST	24	17%	1	23
INSTAGRAM	10	7,14%	0	10

It is then proceeded with the breakdown of the sample according to the type of business going to calculate the percentage of B2B and B2C companies that are present on social (Table 3).

TABLE 3: WEIGHT PERCENTAGE OF THESE COMPANIES ON SOCIAL NETWORK

SOCIAL MEDIA SITE	B2B	%	B2C	%
FACEBOOK	19	27,14%	48	68,57%
LINKEDIN	16	22,86%	34	48,57%
YOUTUBE	18	25,71%	37	52,86%
TWITTER	14	20,00%	30	42,86%
PINTEREST	1	1,43%	23	32,86%
INSTAGRAM	0	0,00%	10	14,29%

Facebook appears as the most popular social network adopted by companies belonging to the Business to Business sector, 19 of them, in fact, have a company page on this social network, which corresponds to 27,14% of the total sample. Following the social in which companies are present to the extent of 25,71% is Youtube (there are 18 companies that have their own channel). The third social network by number of firms is LinkedIn, with 22,68% of registered companies. Follow the Twitter social network (20% of the sample has its own page) and Pinterest (1,43%, equal to a company). Among the 70 companies in the sample Business to Business has no active profiles on the social network Instagram.

Analyzing the results obtained for the Business to Consumer companies and making an overall assessment with respect to the total sample, it appears that the propensity to use social always sees Facebook as a first choice with a 68,57% of B2C companies in the sample with their own business page. Followed by the presence on social networks, there are Youtube (52,86%) and LinkedIn (48,57%).

This type of evaluation suggests a convergence strategy in positioning on social networks, irrespective of the business of belonging (Fig. 1).

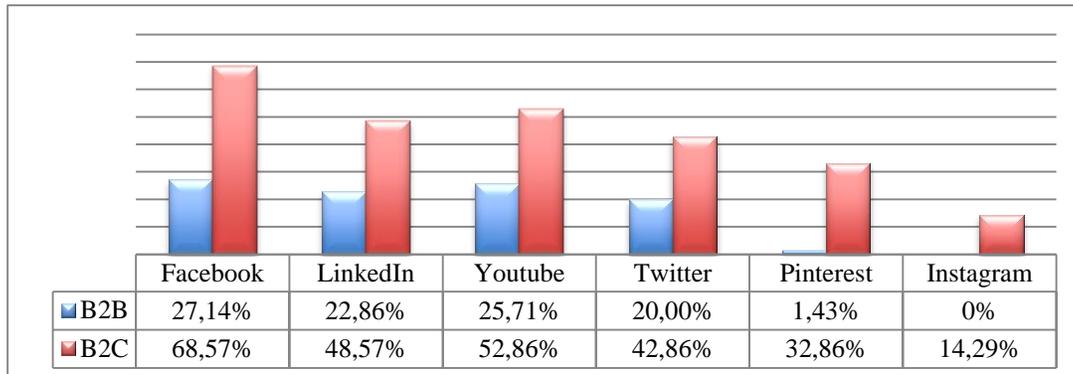


FIG. 8 THE PRESENCE OF BUSINESS ON THE SOCIAL NETWORK WITH RESPECT TO THE TOTAL SAMPLE

These results were processed by comparing the values with the total sample of firms, thus including companies devoid of social pages. The scenario changes by estimating the weight in percentage terms instead of the results obtained exclusively in the set of companies that are present on social media.

In this case, in fact, Figure 2 shows the comparison between the two compartments on the basis of their "weight" with respect to each social media. The use of this representation might be useful to look at the actual "attitude" of the companies in respect of a tool-set that consists of more social media.

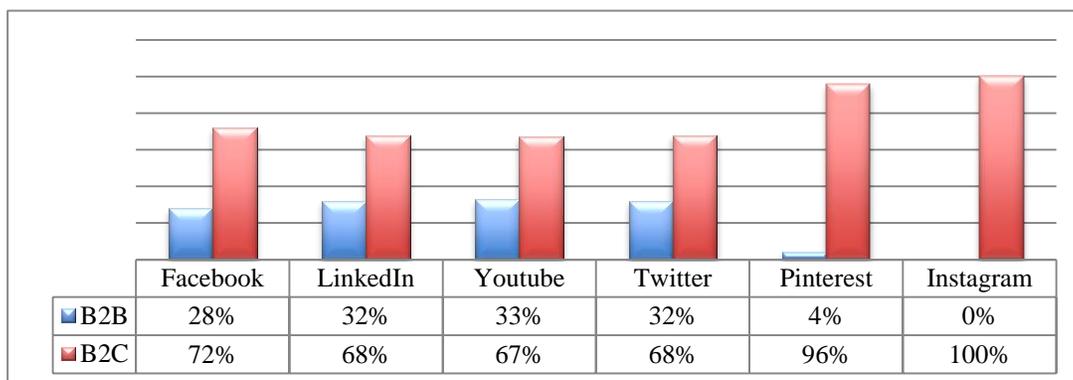


FIG. 2 THE PRESENCE OF BUSINESS ON THE SOCIAL NETWORK WITH RESPECT TO THE WEIGHTED SAMPLE

The result that emerges from this analysis is that, although in absolute terms the most guarded by B2B social media is Facebook, YouTube are social media (33%), LinkedIn (32%) and Twitter (32%) instruments where companies B2B has a weight more important than the B2C. On the other hand, using the same approach, we can see that social media such as Facebook and Instagram Pinterest tools are preferred by B2C companies, or in which the proportion of B2C companies who will preside over the greatest impact. The social media such as Instagram is adopted for the whole of the undertakings B2C, Pinterest and Facebook by 96% from 72%.

It would therefore appear that companies choose different toolset tools by virtue of the scale of use of the social networks themselves (Belo et al., 2013). This representation is in line with the observations made by the authors analyzed in this work. There are in fact social media more oriented to the production and dissemination of professional contents and thus able to influence within a network of professionals such as LinkedIn, Youtube and Twitter. Just as there are social media such as Instagram, Pinterest and Facebook designed for end-users who, with their contents, help fuel the network.

Conclusion

In this work we tried to verify the existence of different approaches to social media marketing in relation to the type of business in which the companies operate. In particular, making the comparison between B2B and B2C companies we can believe that there might be a different propensity to adopt a particular portfolio of social media.

It is important to note that marketers in order to define a marketing strategy based on social media, they should consider the social universe as a set of tools that differ in many ways but at the same time, they can be an integral part of a single strategy. The choice of platforms to use can significantly affect the marketing performance of the company and should be carried out by taking into account the type of business in which a company operates.

From the analysis of the sample was confirmed a concept expressed in the literature that a delay of B2B companies than the B2C adoption in the context of social media for marketing purposes. The more tools are used for both segments Facebook, LinkedIn and YouTube.

However, at a second level of analysis was sought to understand what was the weight of the two types in relation to each social media. With this approach it was possible to verify some usage trends. The app Instagram for example, was adopted for the whole of the B2C companies from which one might infer that this instrument is perceived as more functional for a marketing-oriented consumers. Similarly, it is in social media YouTube B2B businesses weigh more than the B2C which might suggest that the video-sharing platform is seen as a marketing tool can also be used in the world of business to business.

Being at an early stage the study has several implications for the future. It is believed that the sample is not representative of real industrial fabric of the Marche Region consists mostly of small and medium-sized enterprises. It is also believed that the first division of the sample in B2B and B2C is an understatement. The goal is to identify clusters based on the macro field of belonging so as to perfect the study of different orientations.

References

- [1] Ahrens, D., (2012). Boost Your Content Ecosystem With Video. *Forrester Research, Inc.*
- [2] Belo, A., Castela, G., Fernandes, S., (2013). How Small and Medium Enterprises are Using Social Networks? Evidence from the Algarve Region. *Advances in information system in technologies*, pp. 143-155.
- [3] Blackshaw, P., & Nazzaro, M., (2004). Consumer-Generated Media (CGM) 101: Word of mouth in the age of the Web-fortified consumer. Retrieved July 25, 2008.
- [4] Bonsón, E., Bednárová, M., (2013). Corporate LinkedIn practices of Eurozone companies. *Online Information Review*, Vol. 37, N° 6, pp. 969-984.
- [5] Bulearca, M., Bulearca, S. (2010). Twitter: a Viable Marketing Tool for SMEs. *Global Business and Management Research: An International Journal*, Vol. 2, N° 4, pp. 269-309.
- [6] Burgess, J., & Green, J., (2009). YouTube (Digital Media and Society Series). *Cambridge, UK: Polity Press.*
- [7] Draft, R., L., & Lengel, R., H., (1986). Organizational information requirements, media richness, and structural design. *Management Science*, 32 (5), 554-571.
- [8] Faber, B., (2002). Community Action and Organizational Change: Image, narrative, identity. *Carbondale, IL: SIU Press.*
- [9] Giamanco, B., & Gregoire, K., (2012, July – August). Tweet me, friend me, make me buy. *Harvard Business Review*, 88-93.
- [10] Harris, L., Rae, A., (2009). Social networks: the future of marketing for small business. *Journal of Business Strategy*, Vol. 30, N° 5, pp. 24-31.
- [11] Jahn, K., & Nielsen, P., A., (2011). A vertical approach to knowledge management: Codification and personalization in software processes. *International Journal of Human Capital and Information Technology Professionals (IJHCITP)*, 2 (2), 26-36.
- [12] Jansen, B., J., Zhang, M., Sobel, K., & Chowdury, A., (2009). Twitter power: Tweets as electronic word of mouth. *Journal of the American Society for Information Science and Technology*, 60 (11), 2169-2188.
- [13] Jussila, J., J., Kärkkäinen, H., Aramo-Immonen, H., (2014). Social media utilization in business-to-business relationships of technology industry firms. *Computers in Human Behaviour*, 30, pp. 606-613.
- [14] Kaplan, A., M., Haenlein, M., (2012). Users of the word, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53, pp. 59-68.
- [15] Kietzmann, J., Hermkens, K., McCarthy, I., P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54 (3), 241-251.
- [16] Kruitbosch, G., & Nack, F., (2008). Broadcast Yourself on YouTube – Really? Proceedings of 3rd ACM Workshop on Human-Centered Computing. *Vancouver, BC: Association for Computing Machinery*, pp. 7-10.
- [17] LinkedIn Press Center (2011). Company background. Available at: <http://press.linkedin.com/about>.
- [18] Lybaert, N., (2002). On-line financial reporting – an analysis of the Dutch listed firms. *International Journal of Digital Accounting Research*, Vol. 2, N° 4, pp. 195-234.
- [19] Mangold, W., G., Faulds, D., J., (2009). Social media: the new hybrid element of the promotion mix. *Business Horizon*, 52, 357-365.
- [20] McNely, B., J., (2012). Shaping Organizational Image-Power Through Images: case histories of Instagram. *Proceedings of the IEEE International Professional Communication Conference. East Lansing, MI.*
- [21] Michaelidou, N., Siamagka, N., T., Christodoulides, G., (2011). Usage, barriers and measurement of social media marketing: an exploratory investigation of small and medium B2B brands. *Industrial Marketing Management*, 40, 1153-1159.
- [22] Silver, D., (2009). The Social network business plan: 18 strategies that will create great wealth. *New Jersey: John Wiley & Sons.*
- [23] Smith, A. N., Fischer, E., & Yongjian, C., (2012). How does brand-related user-generated content differ across YouTube, Facebook, and Twitter? *Journal of Interactive Marketing*, 26(2), 102-113.
- [24] Swani, K., et al., (2014). Should tweets differ for B2B and B2C? An analysis of Fortune 500 companies' Twitter communications. *Industrial Marketing Management*.

- [25] Zhang, J., Yongjun S., Lee, W. N. (2010). To Play or Not to Play: An Exploratory Content Analysis of Branded Entertainment in Facebook. *American Journal of Business*, 25, 1.

Customer Knowledge to improve the Innovation: The Relationship in México

Juan Mejía-Trejo. jmejia@cucea.udg.mx
Jose Sánchez-Gutierrez. jsanchez@cucea.udg.mx
José Francisco Haro-Beas. fcoharo@hotmail.com
Universidad de Guadalajara (UdG), México

Customer Knowledge to improve the Innovation: The Relationship in México

Abstract

The Knowledge Management (KM) improves the innovation in the firms based on information (OECD, 2003). Gebert, Geib, Kolbe, & Riempp, (2013) showed the sense of information: for, from and about the customers, that increase the market opportunities; this is called Customer Knowledge Management (CKM). The different Innovation Stages (INNOVS) increase the competitive advantage (OECD, 2005). Hence: ¿Which is the conceptual model that relates the variables, dimensions and indicators from CKM with INNOVS? A questionnaire was designed using Likert scale and the Cronbach's alpha for confidence measurement, Pearson's Correlation and Multiple Regression Analysis (MRA) with stepwise method, was applied in 200 SME's belonging to the software developer sector located in Guadalajara City (SDSGC), México. Independent variables are based on CKM to explain the dependent variable INNOVS. CKM as a Driver Innovation (CKMADI) and CKM other sources of Knowledge (CKMOSK) on INNOVS showed correlation.

Keywords: Customer Knowledge Management, Innovation Stages, Competitive Advantage

Introduction

Today, are considered amongst others important key factor to develop competitiveness: the CKM (Garcia-Murillo & Annabi, 2002) and the INNOVS (Chesbrough, 2006). Therefore, this study is aimed to identify the CKM variables, dimensions and indicators that are predominant on the INNOVS of the 200 SME's belonging to the SDSGC; they are considered as one of the most successful industrial sectors in the creation of innovation. This work is divided into the explanation of: 1) contextual reference, problem, research questions, hypotheses and rationale for the study; 2) the theoretical framework, which is a collection of concepts about CKM and INNOVS, closing with the design of the questionnaire; 3) methodology; 4) analysis of results; 5) Discussion and 6) Conclusions.

Contextual Reference

One sector in México that is considered successful, fast-growing and highly dependent of CKM to drive the innovation in different stages is the SDS. According to INEGI (2014), into GC located in Jalisco state there are around 200 firms that are directly or indirectly related with SDS, which have opportunities to develop them into the Digital Creative City program. The project, was officially announced on January 30, 2012 by President Felipe Calderon, to enable 1000 acres, with an early investment close to 1000 million USD looking for create 20,000 jobs in 10 years. Disney, Pixar Studios and Dreamworks already have shown interest in joining to the *Jaliwood* concept of Mexico, hence the importance of identifying and promoting in a systematic way, the major factors such as CKM to encourage the INNOVS in SDS.

The Global Innovation Index Report (INSEAD, 2012) places México on site 63/142 that is reflected in its level competitiveness level, which is located on site 53/144 according to The Global Competitiveness Report 2012-2013 (WEF, 2013). Hence, the rationale for the study is to know the principal indicators for, from, about the customer (CKM) as information aimed to increase evenly the competitiveness by means of the innovation stages (INNOVS) in the SDSGC.

Problem, Research Questions, Rationale for the Study and Hypothesis

So, our problem is described in a general question as **GQ**: ¿Which is the conceptual model that relates variables, dimensions and indicators from CKM with INNOVS? By other hand, the specific questions (as **SQ**), are: **SQ1**: What is the scheme of the model?; **SQ2**: Which are the variables, dimensions and indicators?; **SQ3**: Which are variables and indicators more significant in the model?. The general hypothesis (**GH**) is: from the current knowledge

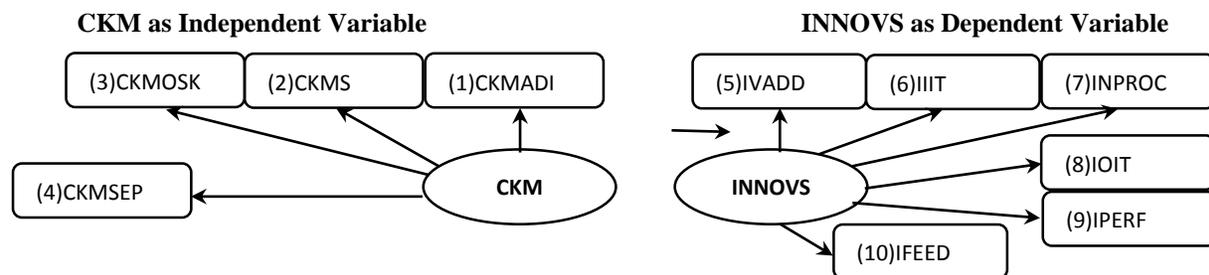
and importance given by SDSGC firms to the CKM, this is present in at least, on 20% of the variability in their innovation stages.

Theoretical Framework

The competitiveness recognizes the potential of the CKM and INNOVS (Hill & Jones, 2011). Many authors have tried to identify different senses of CKM information like: for, from, about and to co-create (Nambisan, 2002; Desouza, Awazu, Jha, Dombrowski, Papagari, & Baloh, 2007; Nicolai; Keld & Pedersen, 2011). Even more, there are efforts to determine the Negative side effects of Customer Integration (Gassmanna, Kausch & Enkel, 2012). The importance of how the knowledge can be supported by means of the human resources, the exchange amongst them, the rewards (Nicolai; Keld & Pedersen, 2011; OECD, 2003; Gebert, Geib, Kolbe, & Riempp, 2013; Gloet & Samson, 2013) and the influence of the Information and Communication Technologies (ICT) (Laudon & Laudon, 2012) is evident to boost the innovation stages. The firm must keep special care about the internal and external sources of information and how to extract them for CKM process (Baker & Hart, 2007; Garcia-Murillo & Annabi, 2002; Gebert, Geib, Kolbe, & Riempp, 2013). It's important to remark the results around the terms of satisfaction, experience and performance as principal indicators of the CKM (Garcia-Murillo & Annabi, 2002).

By other hand, we have the INNOVS as a matter of study in several stages that we have proposed like a system, involving: value added to several agents apart the customer (Bonel, J. I., Bonel, F. J., & Fontaneda, 2003) the relation value-price (Gale & Chapman, 1994), the customer emotions and desires to identify the attributes of products and services (Chaudhuri, 2006). The early phase of innovation that recognize the idea (Gassmanna, Kausch & Enkel, 2012), the tangible (Shipp, 2008; McKinsey, 2008) and intangible resources (Afuah, 1997; Canibano, 1999; Shipp, 2008; Lev, 2000; Howells, 2000 Popadiuk & Wei-Choo, 2006) As part of the proces, is impotant to consider the concepts like Research, Deevlopment and Innovation (R&D+i) (Shipp, 2008, McKinsey, 2008; OECD, 2005 Chesbrough, 2006) and the lifecycle product (Gale & Chapman, 1994), the design, prototype and pre-production (Nicolai; Keld & Pedersen, 2011; Chesbrough, 2006; Shipp, 2008; McKinsey, 2008). The cycle of customer since the early innovation until the obsolete state of a product, is described by Rogers Model (1983) and Mejía-Trejo & Sánchez-Gutiérrez (2013a); the efforts of the technology (Dussauge & Ramantsoa, 1992). The novelty, training and type of innovation is considered as primary prerogatives (OECD, 2005; Afuah, 1997) to determine the attributes and characteristics in the new product and service development (Shipp, 2008; McKinsey, 2008; Lev, 2001; Dussauge & Ramantsoa, 1992). The results must be measured, by means of indicators (Bermúdez-García, 2010) aimed to reinforce the agreements amongst the government, the firm and the universities (Smith & Leydesdorff, 2010).

Finally, like an autocontrolled system there must be an information feedback of innovation, by means of capital investment (Lev, 2001; Shipp (2008); Nicolai; Keld & Pedersen, 2011), the improvement to the firm due the product, service, process, marketing, organizational, technology, infrastructure and other aspects of the innovation (Dussauge, & Ramantsoa, 1992; OECD, 2005; Chesbrough, 2006; White & Bruton, 2011), value added (Bonel, J. I., Bonel, F. J., & Fontaneda, 2003; Gale & Chapman (1994) and the kind of leadership that boost the innovation (Mejía-Trejo, Sánchez-Gutiérrez & Ortiz Barrera, 2013). As a result of the documentary analysis and making several groups of concepts answering SQ1 we obtained the **Figure 1**.



Source: Own by Authors adaptation

FIG 1: GENERAL CONCEPTUAL MODEL

Methodology

This is a descriptive and transversal study; it is based on documental research, to design a conceptual model and questionnaire to obtain several groups of variables, dimensions and indicators that are involves between CKM and INNOVS value creation and innovation generation. The subjects of the study were the managers from 200 SME´s SDSGC. The results were analyzed through statistical inference tools like: Cronbach´s Alpha in pilot test, Pearson´s Correlation and MRA with stepwise method, contained in the SPSS program.

Analysis of Results

To answer **SQ2** we present the **Table 1** with 10 variables, 45 dimensions and 110 indicators.

TABLE 1: FINAL QUESTIONNAIRE THAT RELATION CKM WITH INNOVS

CUSTOMER KNOWLEDGE MANAGEMENT					
VARIABLE	DIMENSION	INDICATOR	Q	AUTHOR	
(1) CKM AS A DRIVER OF INNOVATION (CKMADI)	1).-Information from Costumer (IFMC)	Customer is a Resource of NPD ideation; Customer Driven-Innovation (Innovation from Customers). Mutual Innovation.	1	[25]; [7]; [12]; [13]	
	2).-Information about the Customer (IABC)	Strategy of close collaboration with customers. Communities of creation.	2	[25]; [13];	
	3).-Information for Customer (IFRC)	Customer as a User collaborates intensively in the product testing and support. Customer Focused Innovation (Innovation for Customers)	3		
	4).-Information as a Customer Co-creator (with) (IWIC)	Customer as a Co-creator helps over NPD design and development; Customer Centered Innovation (Innovation with Customers); Prosumerism; Team-Based-CoLearning. Joint Intellectual Property	4	[26]; [7]; [13]	
	5).-Negative side effects of Customer Integration (NSEC)	The firm is warned about the dependence on customer´s personality (NSEC1)		5	[11]
		The firm is warned about the dependence on customer´s experience (NSEC2)		6	
		The firm is warned about the dependence on customer´s point of view (NSEC3)		7	
		The firm is warned about to choose the wrong customer (NSEC4)		8	
		The firm is warned about the risk to integrate the customer to the company´s side (NSEC4)		9	
	(2) CKM SUPPORT (CKMS)	6).-Knowledge Incentives (KI)	Salary associated with the ability and willingness to share knowledge (KI1)	10	[26]; [27]; [12]
Salary determined by willingness to improve skills and upgrade knowledge (KI2)			11		
Tolerance of Failure (KI3)			12	[14]	
Rewards and Recognition (KI4)			13		
7).-Knowledge Fluence (KF)		Exchange the knowledge between employees across departments (KF1)	14	[26]; [27]	
		Communication among employees and management (KF2)	15		
8).-Knowledge and ICT (KICT)		ICT to support and control the Customer Knowledge Management	16	[20]	
(3) CKM OTHER SOURCES OF KNOWLEDGE (CKMOSK)	9).-Internal Sources of Knowledge (IOSK)	Technical Services (IOSK1)	17	[2]; [10]; [12]	
		Engineering Department (IOSK2)	18		
		Research and Design Development (IOSK3)	19		
		Production (IOSK4)	20	[10]	
		Marketing and Sales (IOSK5)	21		
		Purchasing and Supply (IOSK6)	22		
		Other Employees (IOSK7)	23		
	10).-External Sources of Knowledge (ESOK)	Supplier (ESOK1)	24	[2]; [10]	
		Scientist, Universities, Patents, Exhibitions Technological Consultant (ESOK2)	25		
		Distributor Agents (ESOK3)	26		
Competitor (ESOK4)		27			

(4) CKM, SATISFACTION, EXPERIENCE AND PERFORMANCE (CKMSEP)	11).-Paradigm (PAR)	If Only We Know What We Knew (KM) as a Customer Retention (PAR1)	28	[10]
		Retention is Cheaper than Acquisition (CRM) as a Customer Satisfaction (PAR2)	29	
		If We Only Knew What Our Customer (CKM) Know as a Customer Experience and Creativity (PAR3)	30	
	12).-Performance (PER)	Performance against budget; Customer retention rate.(KM) (PER1)	31	
		Performance in terms of customer satisfaction and Loyalty (PER2)	32	
		Performance against competitors in innovation and growth; Contribution to customer success. (CKM) (PER3)	33	
INNOVATION STAGES				
(5) INNOVATION VALUE ADDED (IVADD)	13).-Emotions & Desires of Customer (VAEDC)	The innovation actions are aimed to increase the Emotions & Desire of the Customer	34	[5]
	14).-Cost & Risk (VACR)	The Cost is the main constraint to increase the value (VACR1)	35	[3]
		The Risk is the main constraint to increase the value (VACR2)	36	
	15).-Customer (VACUS)	The innovation actions are aimed to increase the Customer value	37	
	16).-Shareholder (VASHO)	The Innovation actions are aimed to increase the Shareholder value	38	
	17).-Firm (VAFRM)	The innovation actions are aimed to increase the value of the Firm	39	
	18).-Sector (VASEC)	The innovation actions are aimed to increase the value of the Sector	40	
	19).-Society (VASOC)	The innovation actions are aimed to increase the value to the Society	41	
20).-Price Value Relation (VAPVR)	The innovation is introduced to the market considering the relation price-value added	42	[9]	
(6) INNOVATION INCOMING ITEMS (IIT)	21).-Early Innovation Phase (EIPH)	Opportunity Identification (EIPH1)	43	[11];
		Opportunity Analysis (EIPH2)	44	
		Idea Generation (EIPH3)	45	
		Idea Selection (EIPH4)	46	
		Concept Definition (EIPH5)	47	
	22).-Facilities for Innovation (Tangibles, FFI)	Provides the most sophisticated equipment to support innovation (FFI1)	48	[31]; [22]
		Invests in R&D+I (FFI2)	49	
		Assigns staff to R& D+I (FFI3)	50	
	23).-Efforts for Innovation (Intangible assets, EFFI)	Makes efforts to use and / or generate Patents (EFFI1)	51	[1]; [4]; [31]; [21]; [17]
		Makes efforts to create and / or improve Databases (EFFI2)	52	
		Makes efforts to improve the organizational processes (EFFI3)	53	
		Makes efforts to use the most of knowledge and skills of staff (EFFI4)	54	
		Makes planned decisions to increase its availability to the risk (EFFI5)	55	
Makes efforts to discover New Market Knowledge (EFFI6)		56		
Makes efforts to study the Existing Market Knowledge (EFFI7)		57	[29]	
(7) INNOVATION PROCESS (INPROC)	24).-Research & Development + Innovation (RDI)	Makes actions to improve existing processes of Research & Development + Innovation (RDI1)	58	[31]; [22]; [28]; [6]
		Makes studies about Product Lifecycle (RDI2)	59	[9]
	25).- Design (DSGN)	Makes actions to improve the existing design (DSGN1)	60	[28]
		Employees have influence on their job (DSGN2)	61	[26]
		Employees engaged in teams with high degree of autonomy (DSGN3)	62	
		The strategy is based on Open Innovation concepts (DSGN4)	63	[6]
	26).-Prototypes (IPPF1)	Makes actions to develop prototypes for improvement	64	[31]; [22]
	27).-Pre-Production (IPPIP)	Makes improvement actions to pre-production	65	
		Makes to investigate market needs of obsolete products (MR1)	66	

	28).-Market Research (MR)	Makes to investigate the needs actions and / or market changes for innovators (MR2)	67	[8]
		Makes to investigate needs and / or market changes for early adopters (MR3)	68	
		Makes to investigate needs and / or market changes for early majority (MR4)	69	
		Makes to investigate needs and / or market changes for late majority (MR5)	70	
		Makes to investigate needs and / or market changes for laggards (MR6)	71	
		Makes to investigate the onset of a new technology (MR7)	72	
		Makes to investigate the term of a technology (MR8)	73	
		29).-Novelty (NOVY)	Decides actions to improve or introduce new forms of marketing (NOVY1)	
	Seeks to be new or improved in the World (Radical Innovation) (NOVY2)		75	[28]; [1]
	Seeks to be new or improved to the Firm (Incremental Innovation) (NOVY3)		76	
	Seeks to be new or improved in the region (Incremental Innovation) (NOVY4)		77	
	Seeks to be new or improved in the industry (Incremental Innovation) (NOVY5)		78	
	30).-Training (TRAI)	Makes actions to train the staff continuously (Incremental Innovation)	79	
	31).-Type of Innovation (TOINN)	Makes actions to innovate in technology (TOINN1)	80	[28]; [1]
Makes actions for innovation in production processes (TOINN2)		81		
Makes actions to improve or introduce new products forms (TOINN3)		82		
Makes actions to improve or introduce new forms of service (TOINN4)		83		
Makes actions to improve or introduce new organizational structures and functions (TOINN5)		84		
Innovation activities tend to be rather radical (TOINN6)		85		
Innovation activities tend to be incremental (TOINN7)		86		
(8) INNOVATION OUTCOMING ITEMS (IOIT)	32).-New products/ and/or services (NPSD)	Detects the projected level of revenues generated by innovation (NPSD1)	87	[31];
		Detects the projected customer satisfaction level generated by innovation (NPSD2)	88	[22]
		Detects the projected sales percentages levels generated by innovation (NPSD3)	89	[21]
		Detects the level of the number of launches of new products/services in a period (NPSD4)	90	[8]; [22]
		Detects the net present value of its portfolio of products / services in the market generated by the innovation (NPSD5)	91	
(9) INNOVATION PERFORMANCE (IPERF)	33).-Cost-Benefit of Innovation (PCBOI)	Do you use an indicator like: Innovation income / (Investment in Innovation) ?	92	[2]
	34).-Opportunities Index for Collaborative Innovation (POIFCI)	Do you use an indicator like: Innovation Identified Opportunities / (Total Contributors on the Process)?	93	
	35).-Generation Ideas Rate (PGIR)	Do you use an indicator like: Generated Ideas / (Market Knowledge Opportunities x Total Contributors on Process)?	94	
	36).-Effectiveness of Idea Generation (PEOIG)	Do you use an indicator like: Number of Approved Ideas / (Number of Generated Ideas)?	95	
	37).-Implementing Effective Prototyping (PIEP)	Do you use an indicator like: Number of Correct and Timely Prototype Terminated / (Total Prototyping Approved)?	96	
	38).-Innovation Generation Rate (PIGR)	Do you use an indicator like: Number of Generated Innovations / (Identified Innovation Opportunities)?	97	
	39).-Index not Successful Innovations (PINSI)	Do you use an indicator like: Number of unsuccessful innovations implemented / (Total Innovation)?	98	
	40).-Triple Helix Politics (PTHP)	Does exist any relationship among : university- government- industry, to develop the innovation?	99	

(10) INNOVATION FEEDBACK ITEMS (IFEED)	41).-Capital (IFCAP)	Based on the results identifies intellectual capital dedicated to innovation for its improvement	100	[21]; [31]; [26].
	42).-Product & Process (IFPP)	Based on the results identifies the stages of new or improved process for upgrading (IFPP1)	101	[8]; [28]; [6]; [33].
		Based on the results identifies attributes of new or improved product / service for its improvement (IFPP2)	102	
	43).-Innovation (IFINN)	Based on the results identifies the stages of new or improved form of marketing for improvement (IFINN1)	103	
		Based on the results identifies the stages of new or improved technology for improvement (IFINN2)	104	
		Identifies the stages of the new or improved structure and functions of the organization to its improvement (IFINN3)	105	
		Identifies the type of innovation (radical or incremental) that has given best results (IFINN4)	106	
	44).-Value Added (IFV)	Based on the results identifies the new or improved value proposition (benefits / costs) for its completion; relation value-price	107	[3]; [9]
	45).-Leadership and Innovation (FLINNO)	The type of leadership that drives innovation is Transactional (FLINNO1)	108	[24]
		The type of leadership that drives innovation is Transformational (FLINNO2)	109	
The type of leadership that drives innovation is Passive (FLINNO3)		110		

Source: Authors by own adaptation

About the statistical inference tools from SPSS program, were obtained: Cronbach's Alpha test =0.793; Table 2, shows the Pearson's Correlations.

TABLE 2: PEARSONS CORRELATION

		INNOVS	CKMADI	CKMS	CKMOSK	CKMSEP
	INNOVS	1.000	.575**	.563**	.581**	.108
Pearson Correlation Coefficient	CKMADI	.575**	1.000	.679**	.628**	.073
	CKMS	.563**	.679**	1.000	.718**	.091
	CKMOSK	.581**	.628**	.718**	1.000	.194**
	CKMSEP	.108	.073	.091	0.194**	1.000

**Correlation is significant at the 0.01 level (2.tailed)

Source: Results in SPSS program

Table 3 shows the MRA Model Summary where we can see Model 1 the independent variable CKMOSK accounts for 33.7 % of the variance and Model 2 with the independent variable CKMADI accounts for 41 % of the variance in the scores of INNOVS dependent variable respectively.

TABLE 3: MRA MODEL SUMMARY (b)

Model	R	R Square	Adjusted R Square	Std. Error for estimate
1	.581 ^a	.337	.334	.397
2	.641 ^b	.410	.404	.376

(a) Predictors: (Constant), CKMOSK ; (b) Predictors: (Constant), CKMOSK, CKMADI

Source: Results in SPSS program

Table 4 confirms Model 1: F (1,198)= 100.789; p<0.01 and Model 2: F (2,197)= 68.522; p<0.01

TABLE 4: ANOVA (a)

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	15.915	1	15.915	100.789	.000(b)

	Residual	31.265	198	.158		
	Total	47.180	199			
2	Regression	19.356	2	9.678	68.522	.000(c)
	Residual	27.824	197	.141		
	Total	47.180	199			

(a) Dependent Variable: INNOVS; (b) Predictors: (Constant),CKMOSK ; (c) Predictors: (Constant), CKMOSK, CKMADI

Source: Results in SPSS program

Table 5 determines the regression equations about Model 1: $INNOVS = 2.147 + .389 CKMOSK$ and Model 2: $INNOVS = 1.854 + .243 CKMOSK + .216 CKMADI$.

TABLE 5: MRA COEFFICIENTS BY STEPWISE METHOD (a)

Model	Unstandardized Coefficients		Standardized Coefficients	t.	Sig.	Collinearity Statistics
	B	Std. Error	Beta			Tolerance
1 (Constant)	2.147	.158		13.564	.000	
CKMOSK	.389	.039	.581	10.039	.000	1.000
2 (Constant)	1.854	.161		11.520	.000	
CKMOSK	.243	.047	.363	5.165	.000	0.606
CKMADI	.216	.044	.347	4.936	.000	0.606

(a) Dependent Variable: INNOVS; Note: values check for any collinearity in our data. As a general rule, a tolerance value below 0.1 indicates a serious problem (Hinton *et al.*, 2004)

Source: Results in SPSS program.

So, we answered **SQ3** since Table 3 that shows the most significant variables were CKMOSK and CKMADI. Since same Table 3, **GH** is explained because of 33.7% of our model produces the variability on the dependent variable INNOVS. Doing the same MRA for the CKMOSK Indicators: ISOK1 until ISOK7 and ESOK1 until ESOK4 and CKMADI Indicators: IFMC, IABC and IFRC we found like the most significant indicators were: NSEC4, ISOK6, ISOK4, ISOK7, NSEC3, as see in Table 6.

TABLE 6: MRA MODEL SUMMARY (a)

Model	R	R Square	Adjusted R Square	Std. Error for estimate
1	.529b	.279	.276	.414
2	.632c	.399	.393	.379
3	.665d	.442	.433	.367
4	.681e	.463	.452	.360
5	.693f	.480	.467	.356
6	.704g	.495	.480	.351
7	.699h	.489	.476	.353

(a) Dependent Variable: INNOVS. (b) Predictors: (Constant), NSEC4; (c) Predictors: (Constant), NSEC4, IOSK2; (d) Predictors: (Constant), NSEC4, IOSK2, IOSK6; (e) Predictors: (Constant), NSEC4, IOSK2, IOSK6, IOSK4; (f) Predictors: (Constant), NSEC4, IOSK2, IOSK6, IOSK4, IOSK7; (g) Predictors: (Constant), NSEC4, IOSK2, IOSK6, IOSK4, IOSK7, NSEC3; (h) Predictors: (Constant), NSEC4, IOSK6, IOSK4, IOSK7, NSEC3

Source: Results in SPSS program

Discussion

There are great opportunities to develop CKM concepts and their applications in SDS/GC, México because the model discovers only 5 of 33 indicators with 41% of the variability on INNOVS. The Descriptive Statistics results, show in average, there are around a 20% of the indicators that are considered in 3 or less than, situation that does not encourage the development for more innovation, specially on some indicators or variables like: CKMSEP, IVADD, IIIT and IFEED. Future studies are suggested around this issues and how affects the different innovation stages.

Conclusions

We discover 4 variables (CKMADI, CKMS, CKMOSK, CKMSEP) with 12 dimensions and 33 indicators that are trying to explain CKM; at the same time too, INNOVS is described with 6 variables (IVAAD, IIIT, INPROC, IOIT, IPERF, IFEED) with 33 dimensions and 77 indicators. The **GQ** is solved involving the relationship between CKM with INNOVS for 200 SMEs SDCGC when is answered the **SQ1**: obtaining the **Figure 1** with 10 variables; **SQ2** is answered by mean the description of variables in the theoretical framework and the questionnaire design showed in **Table 1** with 45 dimensions and 110 indicators associated to the variables; **SQ3** is answered by means the variable correlations (**Table 2**) and **Table 3**, showing as the most significant variables with CKMOSK and CKMADI; in fact, **GH** is answered in a positive way because at least 33.7% (more than 20% proposed) of our model produces the variability on the dependent variable INNOVS by CKMOSK (Model 1) and CKMADI (Model 2) action. **Table 4** confirms the Model 1 and Model 2 and **Table 5** the regression equations of each Models. **Table 6** shows: NSEC4, ISOK6, ISOK4, ISOK7, NSEC3 as the most significant indicators of the model.

References

- [1] Afuah, A. (1997). *La Dinámica de la Innovación Organizacional. El Nuevo Concepto para Lograr Ventajas Competitivas y Rentabilidad*. México: Oxford University Press.
- [2] Baker, M., & Hart, S. (2007). *Product Strategy and Management*. USA: Pearson.
- [3] Bermúdez-García, J. (OCT de 2010). Cómo Medir la Innovación en las Organizaciones. *Escuela de Postgrado de la UPC; Cuadernos de Investigación EPG*(11).
- [4] Bonel, J. I., Bonel, F. J., & Fontaneda, I. (2003). Aplicación del nuevo modelo estratégico de Creación de valor al análisis del éxito Empresarial del e-business. . *V Congreso de Ingeniería de Organización*, (pág. 11).
- [5] Canibano, L., García-Ayuso, L., Sánchez, P., & Olea, M. (9-11, June.1999). Measuring Intangibles to Undersatand and Improve Innovation Management.Preliminary Results. *Paper presented at the OECD International Symposium. Measuring and Reporting Intellectual Capital: Experience, Issues, and Prospects. Amsterdam. 9-11 June, 1999*. Amsterdam: OECD.
- [6] Chaudhuri, A. (2006). *Emotion and Reason in Consumer Behavior*. Burlington, MA. USA: Butterworth-Heinemann (is an imprint of Elsevier).
- [7] Chesbrough, H. W., Vanhaverbeke, W., & West, J. (2006). *Open Innovation. Researching a New Paradigm*. Oxford: Oxford University Press.
- [8] Desouza, K., Awazu, Y., Jha, S., Dombrowski, C., Papagari, S., Baloh, P.(03 de Mar de 2007). *Custome-Driven Innovation*. Recuperado el 03 de Mar de 2014, de http://faculty.mu.edu.sa/public/uploads/1357394142_956332024697.pdf
- [9] Dussauge, P. H., & Ramantsoa, B. (1992). *Strategic Technology Management*. Chichester: John Wiley.
- [10] Gale, B., & Wood, C. R. (1994). *Managing Customer Value.Creating Quality and Service That Customer can see*. New York: Free Press.
- [11] Garcia-Murillo, M., & Annabi, H. (2002). Customer Knowledge Management. *Journal of the Operational Research Society*, 53(8), 875-884.
- [12] Gassmanna, O., Kausch, C., & Enkel, E. (2012). *Integrating Customer Knowledge in the Early Innovation Phase*. Recuperado el 03 de March de 2014, de Integrating Customer Knowledge in the Early Innovation Phase: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.380.2564&rep=rep1&type=pdf>
- [13] Gebert, H., Geib, M., Kolbe, L., & Riempp, G. (2013). *Towards Customer Knowledge Management: Integrating Customer Relationship Management and Knowledge Management Concepts*. Recuperado el 03 de 03 de 2014, de Institute of Information Management. University of St. Gallen.St. Gallen, Switzerland: file:///C:/Users/jmt/Desktop/Towards_customer_knowledge_management.pdf
- [14] Gibbert, M. L., & Probst, G. (2002). Five Styles of Customer Knowledge Management, and How Smart Companies Use Them To Create Value. *European Management Journal*, 20(5), 459 - 469.
- [15] Gloet, M., & Samson, D. (2013). Knowledge Management to Support Systematic Innovation Capability. *46th Hawaii International Conference on System Sciences* (págs. 3685-3694). Hawaii: Hawaii International Conference on System Sciences.
- [16] Hill, C. W., & Jones, G. R. (2011). *Administración Estratégica un Enfoque Integral*. (9a. ed.). México: : CENGAGE Learning.
- [17] Hinton, P., Brownlow, C., McMurray, I., & Cozens, B. (2004). *SPSS Explained*. New,Tork, USA: Routledge Taylor & Francis Group.
- [18] Howells, J. (2000). *The Nature of Innovation in Services*. Australia: OCDE Innovation and productivity in Services Workshop, October.
- [19] INEGI. (2014). *Portal Web INEGI*. Recuperado el 6 de Enero de 2014, de Subportal Ciencia y Tecnología;Innovación, Investigación y uso de TICs (Sector Privado); Establecimientos Grandes: <http://www.inegi.org.mx/Sistemas/temasV2/Default.aspx?s=est&c=190>
- [20] INSEAD . (2013). *The Global Innovation Index 2013.The Local Dynamics of Innovation*. Geneve: INSEAD.
- [21] Laudon, K., & Laudon, J. (2012). *Management Information Systems. Managing the Digital Firm*. USA: Prentice Hall.

- [21] Lev, B. (2001). *Intangibles: Management, Measurements and Reports*. Washington, D.C.: Brookings Institution Press.
- [22] McKinsey Global Survey Results: Assessing Innovation Metrics. (2008). *McKinsey Global Survey Results: Assessing Innovation Metrics*. Recuperado el 12 de 12 de 2013, de McKinsey Global Survey Results: Assessing Innovation Metrics: http://innovbfa.viabloga.com/files/McKinseyQuarterly___assessing_innovation_metrics___oct_2088.pdf.
- [23] Mejía-Trejo, J., & Sánchez-Gutiérrez, J. (2013a). *Patente n° MX/a/2013/011807*. México.
- [24] Mejía-Trejo, J., Sánchez-Gutiérrez, J. & Ortiz-Barrera, M. (2013b). *Leadership and Value Creation on Innovation: The Case of Software Developer Sector in Guadalajara*, recuperado el 12 de 04 de 2014 de portal web : *Social Sciences Research Network* ubicado en: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2390787
- [25] Nambisan, S. (2002). Designing Virtual Customer Environments for New Product Development: Toward a Theory. *Academy of Management Review*, 27(3), 392-413.
- [26] Nicolai, J., Keld, L., & Pedersen, T. (2011). Linking Customer Interaction and Innovation: The Mediating Role of New Organizational Practices. *Organization Science*, 22(4), 980-999.
- [27] OECD (2003). *Knowledge Management. Measuring Knowledge Management in the Business Sector*. Paris, France: Organisation for Economic Co-operation and Development. (OECD).
- [28] OECD (2005). *Guidelines for Collecting and Interpreting Innovation Data*. París, France: Organisation for Economic Co-operation and Development. (OECD).
- [29] Popadiuk, S., & Wei-Choo, C. (2006). Innovation and knowledge creation: How are these concepts related? *International Journal of Information Management*(26), 302-312.
- [30] Rogers, E. (1983). *Diffusion of Innovations*. Recuperado el 20 de 01 de 2014, de http://www.valuebasedmanagement.net/methods_rogers_innovation_adoption_curve.html
- [31] Shipp, S. S. (2008). *Measuring Innovation and Intangibles: A Business Perspective*. IDA Document D-3704. USA: Institute for Defense Analyses Science & Technology Policy Institute.
- [32] Smith, L., & Leydesdorff, L. (20 de FEB de 2010). *The Triple Helix in the context of global change: dynamics and challenges*. Recuperado el 20 de FEB de 2014, de The Triple Helix in the context of global change: dynamics and challenges: <http://www.leydesdorff.net/th11/th11.pdf>
- [33] White, M., & Bruton, G. (2011). *The Management of Technology and Innovation*. Mason, OH: OUTH-WESTERN CENGAGE Learning.
- [34] World Economic Forum. (2013). *The Global Competitiveness Report 2012-2013*. Geneve: World Economic Forum.

**The Effect Of Visual Layout Of Assortment Breadth And Depth On Individual Perceptions
Of Assortment Size And Evaluations**

Gabriele Pizzi, gabriele.pizzi @unibo.it
Daniele Scarpi, daniele.scarpi@unibo.it
University of Bologna, Italy

The Effect Of Visual Layout Of Assortment Breadth And Depth On Individual Perceptions Of Assortment Size And Evaluations

Abstract

The aim of the present research is to relate the shelf visual layout, perceived (and not just actual) assortment size, and post-choice consumer evaluations. To this purpose, two experimental studies will be presented. Study 1 shows how different visual layouts affect the perceptions of assortment size and consumers' post-choice evaluations. When assortment breadth (i.e. the number of brands) is displayed horizontally on shelves, the same number and type of products is perceived as being more satisfying and numerically larger than when it is assortment depth (i.e. the number of alternative within each brand) to be displayed horizontally. The second study aims to isolating the underlying causal mechanisms, thus ruling out alternative explanations and linking the effects observed in the first study to the mere effect of the visual layout strategy adopted by the retailer to display the same amount of SKUs.

Introduction

Imagine going shopping at your local grocery store for some *pasta*, to cook a nice meal for yourself or your family and friends. You could already have your favorite kind of *pasta* in mind, being a *pasta* addict as one of the authors, or you could be clueless about *pasta* as the other author, and therefore assess in store what kind of pasta appears to be the best one for you. The literature refers to these two different kinds of customers as “preference matchers” and “preference constructors”: matchers have an articulated ideal point in mind, builders do not (Chernev, 2003). Previous studies have already documented that matchers and builders can differ in the degree of selectiveness in processing information, in the likelihood of adopting a comparative rather than confirmatory approach, and ultimately in their final choices (Mogilner, Rudnick and Iyengar, 2008).

To slightly complicate the picture, the store you shop into, could have a large or a small assortment of pasta. To these regards, previous literature has investigated the impact of assortment size on consumer satisfaction and found that it is moderated by the extent to which consumers have articulated attribute preferences. Furthermore, the literature has shown that the perception about the assortment's size can be as relevant as –or more relevant than- its actual size (Mogilner et al., 2008). However, while there is agreement that matchers and builders react differently to comparable levels of assortment, previous studies disagree as to the magnitude and the direction of the effect.

Different –often separate- streams of literature appear to lap at the shore of assortment management. To guide the navigation amidst this turbulent confluence of different research streams, we present two empirical studies that put together assortment layout, assortment size, consumers' perceptions and choices. Study 1 demonstrates that the same assortment is perceived as having different sizes according to the visual layout adopted to display the product on the shelves. More precisely, the study addresses horizontal and vertical layouts: a horizontal layout can be defined as displaying assortment breadth by row and assortment depth by column; conversely, a vertical layout can be defined as displaying assortment depth by row and assortment breadth by column.

Study 2 explores the relationship between preference articulation and visual layout, ruling out that the effects emerging from Study 1 are due to different levels of preference articulation (i.e. consumers having a well defined preference structure vs. consumers assessing their preferences from contextual cues), or due to the different levels of task complexity (i.e. the amount of time needed to complete the choice task) induced by visual layout.

Theoretical background

Shelf Visual Layout

Recent studies have highlighted the different impact exerted by attribute- and benefit-based merchandise display on consumer choices and decision satisfaction (Lamberton and Diehl, 2013), and have found asymmetric effects of horizontal versus vertical shelf layouts. More specifically, a benefit-based architecture is more likely to favor sales of

the lower-priced items, to reduce the perceived variety through the enhancement of perceived similarity among the alternatives, and to increase decision satisfaction. While insightful, the focus of this body of literature has not provided meaningful indications about the visual layout that best suits the grouping logic adopted by customers in their in-store evaluations and about how the grouping logic should be translated into shelf layout. With these regards, a different stream of studies has focused on the physical location of the items on the shelves finding that search patterns might be influenced by the position of the products on the shelves (Reutskaja, Nagel, Camerer, and Rangel, 2011). However, those studies have relatively neglected the underlying grouping logic, focusing instead on how much space should be allocated to each SKU (Murray, Talukdar and Gosavi 2010), and the effect of shelf orientation on sales (Chandon et al., 2009).

It has been found that consumers develop different assortment perceptions according to the different levels of complexity in the evaluation task rather than to differences in the actual assortment size (Mogilner et al. 2008) as a function of the way assortment is organized and displayed (Kahn and Wansink 2004). Indeed, consumer perceptions about the assortment could be influenced by the extent to which the visual layout of the shelf (i.e. the physical ordering of the products) adheres to the set of consumers' information acquisition structures (i.e. horizontal versus vertical). Similarly, also consumer satisfaction could be influenced by the visual layout of the shelf, with some physical ordering of the products reducing the difficulty of the choice task.

Decision Satisfaction

Satisfaction captures the post-decisional evaluation of a product or of an experience (Oliver 1997) and these post-choice evaluations affect a company's long term relationship with a customer. However, factors affecting switching or choice deferral (Chernev 2006) cannot be automatically assumed to be identical to factors affecting satisfaction with the choice made (Gregoire and Fisher 2006).

Analyzing the effect of larger assortments on satisfaction increases the understanding of the psychological processes and the managerial implications associated with assortments. Decision satisfaction is a cognitive and affective state in which the individual experiences satisfaction with the process made in selecting the preferred product (Gregoire and Fisher 2006); it is a personal evaluation of the choice experience, closely connected to the context where the choice took place, rather than to (expectations about) the product that has eventually been purchased.

Decision satisfaction is important as it leads consumers to specific intentions and behaviors that in turn have consequences for retailers. If decision satisfaction is low—for example, because consumers are anxious or uncertain—this could lead to negative word-of-mouth for the store and lower repatronage intention for the store (Fitzsimons, 2000).

Preference-matching and preference-building

The conditions for making decisions can be divided into two types: certainty and uncertainty. Certainty is the case when consumers have strong existing preferences so that they know beforehand which product they are would like to buy. Uncertainty is the case when consumers have no strong pre-existing preferences, and decide within the store which alternative to buy. In the first case, the consumers are preference matchers: they have to assess the best match between the product in their mind and the products in the store. In the second case, the consumers are preference builders: they have to construct their preferences and make a context-dependent choice.

In rational-choice models, individual preferences are taken to be given beforehand, rather than constructed and revised through on-going social processes, but a great deal of literature has already shown that this is not how things usually work in reality nor how the human brain usually operates choices (Bettman, Luce and Payne 2008). A huge deal of work has been done in the last decades to understand the limits of rational-choice theory's operating parameters, especially in real-world situations where individuals face decisions in circumstances far different from the classic ideal. Nowadays, decision theorists recognize the importance of the context for guiding choice, and consider the presence of strong pre-existing preferences as exceptional in real life.

Some relevant analyses dealing with the effects of assortment size have directly or indirectly dealt with this issue. For instance, Chernev (2003) directly tests the effects of pre-existing preferences, and Mogilner and colleagues (2008) compare consumers who are unfamiliar with a product category (and therefore less able to form preferences prior to exposure to the assortment) with consumer familiar with a product category.

In line with these studies, this work studies the effect of pre-existing preferences and lack thereof, on how people react towards large and small assortments. Adding the consideration of context-dependent choices, instead of focusing on pre-existing preferences or pre-existing preference compositions (Briesch, Chintagunta, and Fox 2009; Diehl and Poynor 2010), adds in this specific case to the realism of the analysis and allows for a broader generalization of the outcomes of the present study.

Empirical Analyses

Study 1

The purpose of Study 1 is to determine if the same levels of assortment are perceived as having different sizes (small versus large) as a function of the visual layout (horizontal versus vertical) adopted to display the products on the shelves.

Sample

To recruit participants in this study, an invitation email was circulated to a list of 100 consumers randomly picked from a panel owned by the authors. Participants were told that their task was to simulate the purchase of a product (pasta pack) as if they were taking their decision in front of the shelf. A total of 61 responses was gathered (response rate 61%); participants' age ranged from 18 to 61 (mean = 27), and 48.8% were females. The invitation email included a link to the webpage with the simulation.

Experimental Stimuli

Participants were asked to choose a pasta pack from a simulated shelf. The pasta packs displayed on the shelves were real products marketed by existing brands and differed in brand and format (e.g. macaroni, spaghetti, etc.). The brands were identified on the basis of a pretest with a pilot sample of 20 respondents not included in the main study. Participants in the pre-test were asked to list the names of the brands and formats of pasta in the order those brands and formats came to their mind, and to state which one they preferred. Results from the pre-test ensure a selection of 5 brands that are comparable in brand image, brand knowledge and that were ranked as "top of the mind" by the respondents. Similarly, this procedure allowed the selection of 5 formats that are almost equally familiar to respondents.

Experimental Procedure

Participants were randomly assigned either to the horizontal or vertical visual layout experimental condition. Visual layout was manipulated between subjects. Respondents were exposed to the same set of 25 pasta packs (5 brands \times 5 formats): what changed was the way the products were arranged on the shelves. In the horizontal layout experimental condition, the products were ordered so that each brand occupied a single horizontal line of the shelf, with the formats ordered vertically across the shelves (i.e. row = brand; column = format). Conversely, in the vertical layout experimental condition, the products were ordered so that each format occupied a single horizontal line of the shelf, with the brands ordered vertically across the shelves (i.e. row = format; column = brand).

First, respondents were exposed to the shelf. Then, respondents were asked to choose one of the pasta packs, and to rate their decision satisfaction on a 5-point scale. Finally, participants were asked to assess their perceptions of the size of the assortment by means of a bipolar 5-point scale "*This store offers a 1= very small selection and 5= very large selection*".

Results

No significant differences emerge in the choice shares of the product alternatives between the two conditions: the manipulation of the visual layout alone is not capable of switching consumer preferences ($\chi^2(16, N = 61) = 15.140, p = .514$). Significant differences emerge instead on the perceived assortment size. While the number of SKUs is the same between the experimental conditions, respondents perceive a larger selection when breadth is displayed horizontally and assortment depth vertically ($M_{\text{horizontal}} = 3.32$) than in the opposite case ($M_{\text{vertical}} = 2.34; F(1, 59) = 47.967, p < .001, \eta^2 = .45$).

Results also show that the effects by visual layout encompass also the levels of decision satisfaction: respondents are more satisfied when assortment breadth is displayed horizontally and assortment depth vertically ($M_{\text{horizontal}} = 4.07$) than when assortment breadth is displayed vertically and assortment depth horizontally ($M_{\text{vertical}} = 2.77$; $F(1, 59) = 55.07$, $p < .001$, $\eta^2 = .48$).

In summary, the way assortment breadth and depth are displayed (i.e. vertically vs. horizontally) appears to affect how large the assortment is perceived to be. Differences in perceived assortment size are not only relevant per se, but especially because they lead to different levels of decision satisfaction. However, the findings reported in this study could be explained also differently: the literature has shown that different levels of decision satisfaction can stem from different degrees of preference articulation (Mogilner et al., 2008). Furthermore, also the perceived complexity of the choice task, as reflected by the time needed to master it, has also been found to affect decision satisfaction (Iyengar and Lepper, 2000).

Study 2

The purpose of Study 2 is to rule out that the individual reactions to the different assortment visual displays that were observed in Study 1 are due to preference articulation, or task complexity. In fact, different levels of preference articulation have been shown on one hand to lead individuals to react differently to assortments of different actual size (Chernev, 2003), and on the other hand to moderate individuals' perceptions of the same assortment (Mogilner et al., 2008). More specifically, preference matchers have been found to prefer to choose from larger assortments (Chernev, 2003). Instead, actual assortment size being equal, preference constructors are more satisfied when they are confronted with a larger number of categories and perceive the assortment to be larger, while preference matchers are unaffected by categorization (Mogilner et al., 2008). Study 2 aims at ruling out that the differences in perceived assortment size assessed by Study 1 are due respondents' level of preference articulation rather than to the horizontal and vertical visual display.

Finally, complexity of a task leads to more time being needed for the task completion (Iyengar and Lepper, 2000). Thus, if the horizontal and vertical visual layouts considered in Study 1 had different levels of complexity, then one would observe a different amount of response times across the different experimental conditions.

Therefore, Study 2 replicates the structure of Study 1 but extends it along two directions: 1- it adds the experimental manipulation of preference articulation; 2- it includes the time needed to complete the choice task in the dependent measures.

Sample

Participants in Study 2 were recruited from the same panel used in Study 1, by excluding those who had already been contacted for the previous study. A total of 86 responses was gathered (response rate 86%); participants' age ranged from 18 to 59 (mean = 26.9), and 47.7% were females.

Experimental Procedure

The respondents were randomly assigned to a 2 (preference matchers vs. constructors) \times 2 (vertical vs. horizontal visual layout) between-subjects experimental design. As in Study 1, the actual size of the assortment was kept constant across all the experimental conditions: respondents were presented the same set of 25 pasta packs (5 brands \times 5 formats) as in Study 1. Visual layout was manipulated similarly to Study 1 by randomly displaying brands (vs. formats) horizontally (vs. vertically); furthermore, the order in which each brand/format appeared was randomized by the software to avoid sequence effects. Prior to the evaluation and choice task from the virtual shelf, similarly to Chernev (2003), participants were exposed to a preference articulation task that served as experimental manipulation for preference matching versus constructing. Participants assigned to the preference matching condition were asked to describe their ideal pasta pack along four key attributes each with five levels. The four attributes were: cooking time (5 – 7 – 9 – 11 – 13 minutes), format (spaghetti, macaroni, farfalle, rotini, penne), brand (Brand A, Brand B, Brand C, Brand D, Brand E¹), and price (50 € cents, 75 € cents, 1€, 1.25€, 1.50€). The remaining part of respondents were assigned to the preference construction condition and read the description of the products along the same four attributes

¹ The five brands presented in the preference elicitation task were the same as in Study 1.

and levels, but without being asked to state any a priori preference. Next, respondents were exposed to a screen with the representation of one of the possible virtual shelf layouts (vertical vs. horizontal) and asked to choose one of the products. The software recorded the time spent to complete the choice task. Finally, respondents were asked to rate their satisfaction with their choice and perceptions of assortment size by using the same scales as in Study 1.

Results

Consistently with the results of Study 1, no significant differences in the choice shares emerge across the four experimental conditions, $\chi^2(66, N = 86) = 59.658, p = .696$. This evidence supports the notion that visual layout together with preference articulation are not capable of shifting individual choices.

Consistently with Study 1, the data reveal a multivariate effect of visual layout (Wilks $\lambda = .746, F = 17.11, df = 3; 95, p < .001, \eta^2 = .25$) on the perceived assortment size, decision satisfaction and time to complete the choice task. Univariate analysis of variance yields significant differences in the levels of assortment perceived by respondents exposed to a vertical ($M_{\text{vertical}} = 2.30$) and an horizontal layout ($M_{\text{horizontal}} = 3.07, F = 25.371, p < .001; df = 1;97; \eta^2 = .21$), and in the levels of decision satisfaction as a function of visual display ($M_{\text{vertical}} = 3.30, M_{\text{horizontal}} = 4.02, F = 14.201, p < .001; df = 1;97; \eta^2 = .13$). In other words, when assortment breadth is displayed horizontally individuals tend to perceive the assortment as being larger and to be more satisfied with their choice than when assortment breadth is displayed vertically.

Instead, no differences emerge in the average time (in seconds) needed to complete the choice task as a function of visual layout ($M_{\text{vertical}} = 212.28, M_{\text{horizontal}} = 50.71, F = .806, p < .001; df = 1;97; \eta^2 = .008$). This evidence rules out the possibility that different levels of difficulty in the choice task emerge as a function of visual display, since respondents did not need significantly more or less time to reach a final choice whether they were confronted with a horizontal or vertical display.

No significant differences also emerge in the levels of perceived assortment size and decision satisfaction as a function of different levels of preference articulation (Wilks $\lambda = .980, F = .642, df = 3; 95, p = .59, \eta^2 = .02$). Moreover, preference articulation does not significantly interact with visual layout in shaping individuals' perceptions of assortment size and decision satisfaction (Wilks $\lambda = .961, F = 1.299, df = 3; 95, p = .279, \eta^2 = .04$). This evidence rules out the possibility that the effect played by visual layout on perceived assortment and decision satisfaction, that was found in Study 1 and confirmed by Study 2, can be ascribed to different levels of preference articulation. These results do not contradict previous researches that found differences in satisfaction between preference matchers and preference constructors when confronted with large versus small assortments (Chernev, 2003; Diehl and Poynor, 2010). Instead, Study 2 integrates the findings reported in the extant literature as it investigates differences in the perceived, rather than actual, assortment size by keeping actual assortment breadth and depth constant across the experimental conditions.

General Discussion

The literature has traditionally focused on the analysis of the effects of the actual size of the set on consumer choices. At the same time, some studies have suggested that the way in which the assortment is placed on the shelf influences consumer perceptions. This work contributes to the literature as it considers how and when the same assortment, whose actual size remains constant, is perceived as larger or smaller depending on how the products are arranged on the shelf, empirically isolating the effects of the shelf display from that of the assortment size.

The managerial implications from the results presented in this analysis are of simple and immediate applicability. Two experiments showed that a display with brands in rows and products in column leads consumers to perceive a larger assortment and increases decision satisfaction. These results hold regardless of the structure of consumer preferences, that is, both for those who already have a clear idea of which product to buy, and for those who mature preferences inside the store by looking at the different options on the shelf. Furthermore, our analysis rules out that the effects we find on decision satisfaction and perceived assortment size are not due to the degree of articulation of consumers' preference structure, but are only due to a different visual layout of the same SKUs on shelf.

References

- [1] Bettman, J. R., Luce, M. F., & Payne, J. W. (2008). Preference construction and preference stability: Putting the pillow to rest. *Journal of Consumer Psychology, 18*(3), 170-174.
- [2] Briesch, R. A., Chintagunta, P. K., & Fox, E. J. (2009). How does assortment affect grocery store choice?. *Journal of Marketing Research, 46*(2), 176-189.
- [3] Chandon, P., Hutchinson, J. W., Bradlow, E. T., & Young, S. H. (2009). Does in-store marketing work? Effects of the number and position of shelf facings on brand attention and evaluation at the point of purchase. *Journal of Marketing, 73*(6), 1-17
- [4] Chernev, A. (2003). Product assortment and individual decision processes. *Journal of Personality and Social Psychology, 85*(1), 151.
- [5] Chernev, A. (2006). Decision focus and consumer choice among assortments. *Journal of Consumer Research, 33*(1), 50-59.
- [6] Diehl, K., & Poynor, C. (2010). Great expectations?! Assortment size, expectations, and satisfaction. *Journal of Marketing Research, 47*(2), 312-322.
- [7] Grégoire, Y., & Fisher, R. J. (2006). The effects of relationship quality on customer retaliation. *Marketing Letters, 17*(1), 31-46.
- [8] Fitzsimons, G. J. (2000). Consumer response to stockouts. *Journal of Consumer Research, 27*(2), 249-266.
- [9] Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing?. *Journal of personality and social psychology, 79*(6), 995.
- [10] Kahn, B. E., & Wansink, B. (2004). The influence of assortment structure on perceived variety and consumption quantities. *Journal of Consumer Research, 30*(4), 519-533.
- [11] Lambertson, C. P., & Diehl, K. (2013). Retail choice architecture: The effects of benefit-and attribute-based assortment organization on consumer perceptions and choice. *Journal of Consumer Research, 40*(3), 393-411.
- [12] Mogilner, C., Rudnick, T., & Iyengar, S. S. (2008). The mere categorization effect: How the presence of categories increases choosers' perceptions of assortment variety and outcome satisfaction. *Journal of Consumer Research, 35*(2), 202-215.
- [13] Murray, C. C., Talukdar, D., & Gosavi, A. (2010). Joint optimization of product price, display orientation and shelf-space allocation in retail category management. *Journal of Retailing, 86*(2), 125-136.
- [14] Oliver, R. L. (1997), *Satisfaction. A Behavioral Perspective on the Consumer* (2nd ed.). New York, NY: McGraw-Hill.
- [15] Reutskaja, E., Nagel, R., Camerer, C. F., & Rangel, A. (2011). Search dynamics in consumer choice under time pressure: An eye-tracking study. *The American Economic Review, 101*(2), 900-926.

Internet of Things and value co-creation in the cultural industry towards Service Dominant logic perspective

Aurelio Tommasetti, rettore@unisa.it,

Massimiliano Vesce, mvesce@unisa.it,

Carmela Tuccillo, ctuccillo@unisa.it,

Orlando Troisi, otroisi@unisa.it,

Department of Management & Information Technology, University of Salerno, Italy

Internet of Things and value co-creation in the cultural industry towards Service Dominant logic perspective

Abstract

In the new Era of connectivity for anything, there is a growing interest in the Internet of Things (IoT). New forms of communication are, in fact, realized in the Internet between human and things that interact within social and environment contexts in a continuous process of value co-creation. The paper aims to understand the IoT paradigm, its role and impact in the co-creation of value drawing from the Service-Dominant (S-D) Logic perspective. The study provides a better understanding of how value is collaboratively created (co-created) in the cultural industry through an examination of two projects (QRator and the “O”). As this paper demonstrates, IoT can be conceptualized as an operant resource capable of acting on other resources to create value, and for value co-creation. The study could be considered a first step in a stream of research on different aspects of IoT and value co-creation which are yet unexplored.

Key words: Internet of Things, value co-creation; S-D logic, cultural industry

1. Introduction

In the last decade, the radical evolution of the current Internet into a network of interconnected objects reveals the growing of an emerging paradigm called the Internet of Things (IoT) that led to the possibility of seamlessly merging the real and the virtual world (Tan and Wang, 2010; Vermesan et al., 2011; Gubbi et al., 2013; Mahalle et al., 2013). This innovative phenomenon is growing in importance and its pervasive presence has an high impact on several aspects of everyday-life, allowing potential users to interact with each other to reach common goals (Atzori et al., 2010). Thus, IoT opens up new opportunities in terms of a potentially dissemination of digital content in order to reach and engage users in a collaborative way that facilitate the value co-creation. This paper aims to understand this phenomenon with an analysis of how value is collaboratively created (co-created) in the cultural sector through the lens of Service-Dominant (S-D) logic perspective.

2. Conceptual background and research questions

2.1. The concept of IoT in literature: principles and definitions

In recent years, a new phenomenon called the Internet of Things (IoT) has emerged as one of the most important paradigm with regards of the future state of Internet, in which any object will be interconnected and based on interoperable communication protocols (Tan and Wang, 2010; Vermesan et al., 2011; Gubbi et al., 2013; Mahalle et al., 2013). Undoubtedly, the term Internet of Things was used for the first time in early 1990s in the area of ubiquitous and pervasive computing (Ashton, 2009). Later on, this concept became popular through the market analysts publications at Massachusetts Institute of Technology (MIT). One of the first definition was attributed to the Auto-ID Labs, (a world-wide network of academic research laboratories) according to the “things oriented” perspective that consider things as very simple items (for example Radio-Frequency IDentification tags). In the field of computing and communication, the IoT is considered a technological revolution based on the concept of anytime, anyplace connectivity for anything. According to this vision, the physical and virtual objects have identities, attributes, and virtual personalities being connected in everyday life through the Internet in effective, practical, and inexpensive ways using intelligent interfaces in dynamic global network infrastructure (CERP-IoT, 2009). The spread of this paradigm has grown considerably and opens up new interesting directions for both research and business. As emerged from literature review, Scholars, made different definitions of IoT in the time. Starting from these, we identify the primary components of each definition, as summarized in the table 1.

TABLE 1: DEFINITIONS AND PRIMARY COMPONENTS OF IOT

Primary components	Definitions
- identifiable objects - virtual representations	<i>IoT refers to uniquely identifiable objects (things) and their virtual representations in an Internet-like structure (Ashton, 1999).</i>
- virtual things	<i>The basic idea of the IoT is that virtually every physical thing in this world can also become a computer that is connected to the Internet (ITU, 2005).</i>
- universality of communication - integration of data and content - unique identification	<i>A “metaphor for the universality of communication processes, for the integration of any kind of digital data and content, for the unique identification of real or virtual objects and for architectures that provide the communicative glue among these components” (CASAGRAS, 2008).</i>
- things with identities - smart spaces - intelligent interfaces	<i>“Things having identities and virtual personalities operating in smart spaces using intelligent interfaces to connect and communicate within social, environmental, and user contexts” (Eposs, 2008).</i>
- active participation of objects - smart objects - information network	<i>“A world where physical objects are seamlessly integrated into the information network, and where the physical objects can become active participants in business processes. Services are available to interact with these smart objects over the Internet, query their state and any information associated with them, taking into account security and privacy issues” (Haller et al., 2009).</i>
- interoperable communication - virtual things with identities - intelligent interfaces - information network	<i>“IoT is an integrated part of future Internet and could be defined as a dynamic global network infrastructure with self-configuring capabilities based on standard and interoperable communication protocols where physical and virtual ‘things’ have identities, physical attributes, and virtual personalities and use intelligent interfaces, and are seamlessly integrated into the information network” (CERP-IoT, 2009).</i>
- pervasive presence - unique addressing schemes - cooperation - common goals	<i>The basic idea of this concept is the pervasive presence around us of a variety of things or objects – such as Radio-Frequency IDentification (RFID) tags, sensors, actuators, mobile phones, etc. – which, through unique addressing schemes, are able to interact with each other and cooperate with their neighbors to reach common goals (Giusto et al., 2010).</i>
- unique identification - accessibility - combination of digital and physical world	<i>The “Internet of Things” describes a vision where objects become part of the Internet: where every object is uniquely identified, and accessible to the network, its position and status known, where services and intelligence are added to this expanded Internet, fusing the digital and physical world, ultimately impacting on our professional, personal and social environments” (Coetzee and Eksteen, 2011).</i>
- virtual word - ICT	<i>It is a concept in which the virtual world of information technology integrates seamlessly with the real world of things (Uckelman et al., 2011).</i>
- technologies - real world objects	<i>The term Internet of Things (IoT) is a concept that encompasses a variety of technologies and research areas that aim to extend the existing Internet to real world objects (Sánchez López et al., 2012).</i>

Source: our elaboration

Initially, starting from the 1990s, the subject of many definitions was the relation between IoT and every physical thing in the world, for example “virtual things”, “identifiable objects”, “cyber-physical systems” (Ashton, 1999; ITU, 2005; Casagras, 2008). Later on, starting from the 2000s, the emergence of the relation between IoT and the interoperable communication process was noted, but only in the recent years has become an important issue (Eposs, 2008; Haller et al., 2009; CERP-IoT, 2009; Giusto et al., 2010; Coetzee and Eksteen, 2011; Sánchez López et al., 2012). Currently, “active participation”, “accessibility”, “virtual word”, “intelligence interfaces” are mainly associated with the concept of IoT. Moving the locus of IoT from technicality (things) to use (process), means transforming our understanding of value from one based on units to one based on processes that integrate resources.

Finally, Scholars have identified the main system-level characteristics of the Internet of Things (Miorandi *et al.*, 2012): 1) communication for anything: things have the ability to communicate with each other in an interconnected

network of objects; 2) identification for anything: things are identified with an unique address in the digital domain; 3) interaction for anything: things can interact with the local environment through sensing and actuation capabilities.

Despite the widely recognized importance of the IoT, limited studies have analysed the impact of the IoT in order to help people in the process of value co-creation. To reach this aim, this paper analyse this process in the cultural industry according to the S-D logic perspective. The forthcoming conceptual sections of this article attempt to address this limitation through the following research questions:

RQ1. What is the contribution of IoT in the value co-creation process (in the cultural sector)?

RQ2. Can be IoT conceptualize as an operant resource in the process of value co-creation?

2.2 Service Dominant Logic and value co-creation

In the literature, Service-dominant logic (S-D logic) is a growing perspective which differ from the traditional, goods-dominant (G-D) logic paradigm (Vargo and Lusch 2004, 2008; Vargo, 2008). According to the G-D logic, value is created by the firm and distributed in the market in the form of a good through exchange of money. From this perspective, the firm's production process creates value for customers and the roles of producers and consumers are distinct. On the contrary, in the S-D logic view, value is always co-created through the integration of resources and competences of producers and consumers that are not distinct. The first important difference between service-dominant and goods-dominant logic lies in the basis of exchange, in fact, in a S-D logic, value is stated in use, while in a G-D logic, value is stated in exchange (Vargo et al., 2008). S-D logic focuses on the action of operant resources whereas G-D logic focuses on the exchange of operand resources (Constantin and Lusch 1994; Vargo and Lusch, 2004). In the S-D logic views, all exchange are based on service and "when goods are involved, they are tools for the delivery and application of resources" (Vargo et al., 2006, p. 40). Value is at all times co-created with the client, and comes from the favourable use of operant resources (Vargo and Lusch, 2008; Vargo and Lusch, 2004). Thus, from S-D logic view, value is co-created by the mutual effort of all stakeholders (Vargo et al., 2008). In contrast with this perspective, G-D logic states that value is embedded during the company's production process and the economic exchange is based on the creation and delivering of objects to be sold. S-D logic perspective stated that value is constantly co-created and must be established in use, from the customers point of view with a transformation of the position of value creation from exchange to use (Vargo et al., 2008). Following S-D logic, the concept of value co-creation differs from the traditional and suggests a value system where producer and customer generate value in an interactive system through the integration of their resources (Lusch, 2011). From this view, co-creation implies that value is recognized and determined by the client in use. As noted, in the S-D logic view all exchange is based on service that is considered "the application of competences (such as knowledge and skills) by one party for the benefit of another" (Vargo et al., 2008, p. 145). Moreover, the basic unit of analysis for service-for-service exchange is the service system, which is a configuration of resources, including people, information, and technology, connected to other systems by value propositions (Vargo et al., 2008). In this context, service science is the study of service systems and of the co-creation of value within complex configurations of resources and competences. "When value creation is seen from a service systems perspective, the producer-consumer distinction disappears and all participants contribute to the creation of value for themselves and for others" (Vargo et al., 2008, p. 149). To sum up, service system is considered as "an open system (1) capable of improving the state of another system through sharing or applying its resources (i.e., the other system determines and agrees that the interaction has value), and (2) capable of improving its own state by acquiring external resources (i.e., the system itself sees value in its interaction with other systems). Service systems are dynamic configurations of resources, both operant resources that perform actions on other resources and operand resources that are operated on. In this context, economic exchange depends on voluntary, reciprocal value creation between service systems (each system must willingly interact, and both systems must be improved)" (Maglio et al., 2009, p. 149). Thus, "a service system is an arrangement of resources (including people, technology, information, etc.) connected to other systems by value propositions. A service system's function is to make use of its own resources and the resources of others to improve its circumstance and that of others" (Vargo et al., 2008, p. 149). The capability of the service systems to co-create value, effectively depending on the resources of others in terms of interdependence of service-for-service exchange and resource integration. Value co-creation occurs through the integration of existing resources with those available from a variety of service systems that can contribute to system well-being as determined by the system's environmental context. "Service systems interact through mutual

service exchange relationships, improving the adaptability and survivability of all service systems engaged in exchange, by allowing integration of resources that are mutually beneficial” (Lusch and Vargo, 2006; Vargo et al., 2008, p. 145). It emerges that value co-creation is one of the key components of service systems, which has been conceptualized by Service-Dominant (S-D) logic perspective as a phenomenon that spread from customer’s involvement in production, design, customization or association process (Vargo and Lusch, 2008; Vargo, 2008; Gummesson *et al.*, 2010). This perspective has been used to emphasize the customer’s collaborative role in value creation, in fact, the customer is always a co-producer (Vargo and Lusch, 2004) and an active part of the system. This implies the evolution of value creation from a solely company-centric approach towards one with more interaction with the customer (Hribernik et al., 2011). In this optic, “co-creation is the process by which products, services, and experiences are developed jointly by companies and their stakeholders, opening up a whole new world of value. Firms must stop thinking of individuals as mere passive recipients of value, to whom they have traditionally delivered goods, services, and experiences. Instead, firms must seek to engage people as active co-creators of value everywhere in the system” (Ramaswamy, 2009, p. 11). On the basis of this concept, “all participants in the value-creation process be viewed as dynamic operant resources. Accordingly, they should be viewed as the primary source of firm and national innovation and value creation. “The terms “co-creation”, “co-production”, and “prosumption” refer to situations in which consumers collaborate with companies or with other consumers to produce things of value” (Humphreys and Grayson, 2008, p. 963). In contrast with the traditional models of value creation, which suggest that value is created by firms (Normann, 2001), this new perspective suggests that customers are active participants in the process of creation of value (Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004, 2008; Vargo et al., 2008). The literature regarding S-D logic emphasizes the primacy of operant resources, who are capable of acting on other resources to contribute to value creation (Constantin and Lusch 1994; Vargo and Lusch 2004). The study attributes importance to the value-creating processes that involve the customer as a co-creator of value (Lusch and Vargo 2006, p. 181), but relatively little is known about how value is collaboratively created (co-created) in the cultural sector. To fill this gap, the next section contribute to a deeper understanding of this topic through the lens of S-D logic perspective. Finally, two initiatives (QRator and The “O”) concerned with the given phenomenon are analyzed according to the S-D logic in order to explore the nature of the value co-creation process.

2.3 Internet of Things and value co-creation in the cultural sector according to the S-D Logic

In the cultural industry, value co-creation is an emerging concept associated with the opportunity to gain competitive advantage aiming at better satisfying customers’ demands for personalized products, services and experiences (Prahalad and Ramaswamy, 2004). Compared to past, when cultural institutions (museums, theatres, libraries etc.), decide the services they will produce, and visitors have little or no role in value creation; today, in the vision of an increasing number of cultural institutions, the customer becomes a co-creator of value. The Internet of Things and its embedded devices are making possible new and more effective ways for producers and consumers to collaborate, in the co-production and co-creation of value (Bogers *et al.*, 2010; Greer and Lei, 2012). In particular, in the cultural organizations that mainly produce symbolic goods whose value arises from their ability to bring forth an emotional response from consumers (O’Connor, 2000), value co-creation arises less from producing tangible benefits for consumers and more from increasing symbolic and emotional value. Consequently, customers’ knowledge and skills can become a valuable resource for firms, allowing them to gain the flexibility needed to adapt to the rapidly-changing business environment (Prahalad and Ramaswamy, 2000). These concepts share the idea that passive consumers/audiences have become active value creators. In fact, “a digital environment promoting interactivity has fostered a greater capacity and a greater interest by audiences to change, alter and manipulate a text or a textual narrative, to seek co-participation in authorship, and to thus redefine the traditional author– text–audience relationship” (Cover, 2006, p.140). According to the S-D Logic perspective, IoT can be conceptualized as an operant resource that can act on other resources (including other operant resources) to create change.

The choice to study the value-co creation in the cultural sector is motivated by the fact that the cultural industries, in economic terms, is one of the fastest growing sectors of the world economy. This growth is accounted for by rapid techno-economic change in products, distribution and marketing that allows for easier production, distribution, consumption as well as co-creation of cultural products and services.

3. Research methodology

The objective of the paper is to explore issues relating to value co-creation in the IoT era. In particular the work intends to focus that issues in the field of cultural institutions. The methodology used to investigate value co-creation in the cross section field of IoT and cultural institutions is mainly qualitative which is well suited to exploratory investigations where the objective is not to validate a research proposition but to explore and develop a proposition (Miles and Huberman, 1994). The research, essentially exploratory in nature, was developed using a case study methodology (Yin, 1994, 2003). The case study approach, as suggested in the literature has the dual aim of “grasping in detail the main characteristics of phenomena being studied” and of understanding the dynamics of a given process (Ryan *et al.*, 2002). Thus, the paper proposes an analysis of two initiatives. Each initiatives was analyzed according to the S-D logic perspective in order to understand the role of all participants in the co-creation of value. The study has been conducted on the basis of the following items: 1. configuration of resources; 2. at least one operant resources; 3. service as the application of resources; 4. value is improvement in a system (ability to adapt to an environment); 4.1 value in use (value driver); 5. economic exchange on a voluntary basis; 6. value creators; 7. process of (co-)creation; 8. purpose of value; 9. role of good (operant resources). All of these elements derived from the S-D Logic theoretical framework explained in the previous sections. One of these is the QRator project at the Grant Museum of Zoology and at the Museum of the Brands in London. The other is the “O” at the Museum of Old and New Art in New Zealand. These projects are interesting because, in both cases, visitors contribute in the creation of value.

4. The QRator project in the Grant Museum of Zoology and the Museum of the Brands in London

The QRator is a visitor engagement project, applied in the Grant Museum of Zoology and in the Museum of the Brands in London with the aim to actively engage visitors in the co-creation of their own interpretations of museum collections with the adoption of IoT devices such as QR Code, iPhone, iPad and Android apps. It is a collaborative initiative between the UCL Centre for Digital Humanities (UCLDH), UCL Centre for Advanced Spatial Analysis (CASA), and UCL Museums and Collections, to develop new kinds of content, co-curated by the public, museum curators, and academic researchers, to enhance museum interpretation, community engagement and establish new connections to museum exhibit content. In line with the S-D logic perspective, this initiative is based on the idea to give the visitor the opportunity to become a co-curator while interpreting and commenting on exhibition content in an individual way. In fact, “through this approach visitors thoughts become part of the museum object’s history and its display, creating digital living labels which subsequent visitors can read and respond to in real time” (Claire Ross, UCL DH). This project is based around the technology behind “Tales of Things” (<http://www.talesofthings.com>) which “has developed a method for cataloguing physical objects online, which could make museums and galleries a more interactive experience” (Giles, 2010). At various stages, throughout mobile phone application or direct via the iPad’s keyboard, users are invited to interact with the device and contribute to the continuing conversation and co-creation of value. The system interlinks with Tales of Things and distributes the information to an accompanying website (<http://www.qrator.org>). According to the S-D logic propositions, QRator aims rethink museums as a place not only for a passive experience, but also for conversation – a cultural laboratory for the meeting of minds and a place of experimentation, dialogue and debate.

5. The “O” at the Museum of Old and New Art in New Zealand

The Museum of Old and New Art in New Zealand, better known as MONA is the most visited single attraction in Tasmania. When visitors enter MONA they are each equipped with the “O” device: an iPod Touch loaded with an app that draws on ubiquitous wi-fi and active RFID technology to deliver interpretation about nearby artworks. This not only creates a seamless experience for visitors but provides the museum with data on how many people have viewed which works (and how many times), how users remix the provided information to create their own tours, and what

they choose to “love” or “hate” about the museum. The “O” application, according with the S-D logic perspective, delivers information in a way that enhances the visitor’s experience of the gallery, facilitating access to engaging multimedia via a highly usable interface in a continuous process of value creation. Delivered on an iPod Touch, the “O” uses an internal positioning system to locate visitors when they request information about nearby artworks. Visitors are provided with various types of content (written, audio and video) and are invited to love or hate the works they view on the device. Given the option to save their tour, visitors can log in to the MONA website at a later date and view a 3D model of their tour through the museum and investigate all the information made available on the device (even for the artworks they missed).

6. Discussion

In this section we discuss the QRator and the “O” projects according to the S-D logic in order to better understand how value is collaboratively co-created in the cultural industry. In particular, we individualize the presence or not of nine S-D logic items concerning value (see table 4). Starting from the first item, “configurations of resources”, each project include people, information, and technology. For this reason, the first assumption is validated for both. In particular, the QRator project is based around the technology behind “Tales of Things”. Continuing with the second assumption, the role of operant resources is fundamental to enable access to benefits of firm competences. In the QRator project, information technology is considered as an operant resource whereas in the “O”, the IoT should be understood as an operant resource and “as a set of practices and processes, as well as symbols, that contribute to value creation or fulfill a human need” (Akaka and Vargo, 2013). According with the definition of service as “the application of resources, including competences, skills, and knowledge, to make changes that have value for another (system)”, it is clear that, these two projects describe the process of value co-creation through interaction and integration of resources within and among service systems. Thus, these systems interact through mutual service exchange relationships, improving the adaptability and survivability of all service systems engaged in exchange, by allowing integration of resources that are mutually beneficial. In this context, value is improvement in a system, as determined by the system or by the system’s ability to adapt to an environment. Value is fundamentally derived and determined in use. Certainly, customers are value creators. In fact, in the QRator project visitors are engaged in the co-creation of their own interpretations of museum collections with the adoption of IoT devices with a little contribution cause of a predefined way of interaction. In the “O”, they deliver interpretation about nearby artworks with a great possibilities of content combination. In each project museum propose value through market offerings, customers continue value-creation process through use. Customers co-create value through the integration of firm-provided resources with other private and public resources. The purpose of value increase adaptability, survivability, and system wellbeing through service (applied knowledge and skills) of others.

TABLE 4: COMPARISON BETWEEN QRATOR AND THE “O”

S-D logic	QRator	The O
1. Configuration of resources	Yes	Yes
2. At least one operant resources	Information Technology	Internet of Things
3. Service as the application of resources	Yes	Yes
4. Value is improvement in a system (ability to adapt to an environment)	Yes	Yes with increasing possibilities of choice
4.1. Value in use (value driver)	Yes	Yes
5. Economic exchange on a voluntary basis	Yes	Yes
6. Value creators	Yes: human and IT (little)	Yes: human and IoT (more)
7. Process of (co-)creation	Yes with a little contribution cause of a predefined way of interaction	Yes with a great possibilities of content combination

Source: our elaboration.

7. Implications and Conclusions

According to the S-D logic perspective, customers are active players and co-creators of knowledge contributing in the development of value creation processes according to the S-D logic perspective. As this paper shows, IoT can be conceptualized as an operant resource - one that is capable of acting on other resources to create value - and, thus, becomes a critical resource for value co-creation, service innovation and systems (re)formation. To sum up, Internet of Things, is a new revolution of the Internet because objects can get an active role in the communication process. They, in fact, can communicate information about themselves and can access to the information created by other things (see fig. 1).

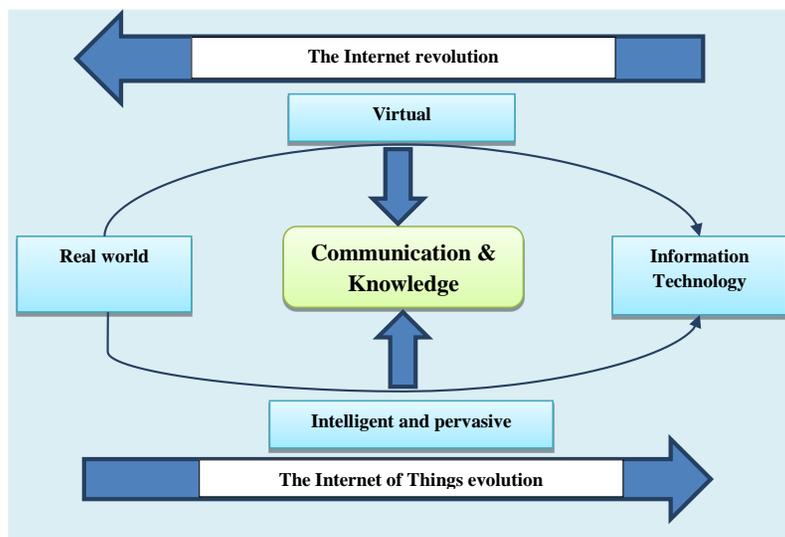


FIG. 1: THE INTERNET REVOLUTION VS THE INTERNET OF THINGS EVOLUTION

Source: our elaboration

The Internet revolution had transformed the real world into a cybernetic world in which, all the computers connected can talk to each other and every knowledge is virtual. Then, with the Internet of Things there is an evolution of this Internet to all the things in the world. This change refers to a world where humans and things communicate and interact with each other in the same space and time (see fig. 2). In fact, people with the IoT, are able to access, adapt, select, and integrate resources in a continuous value co-creation process.

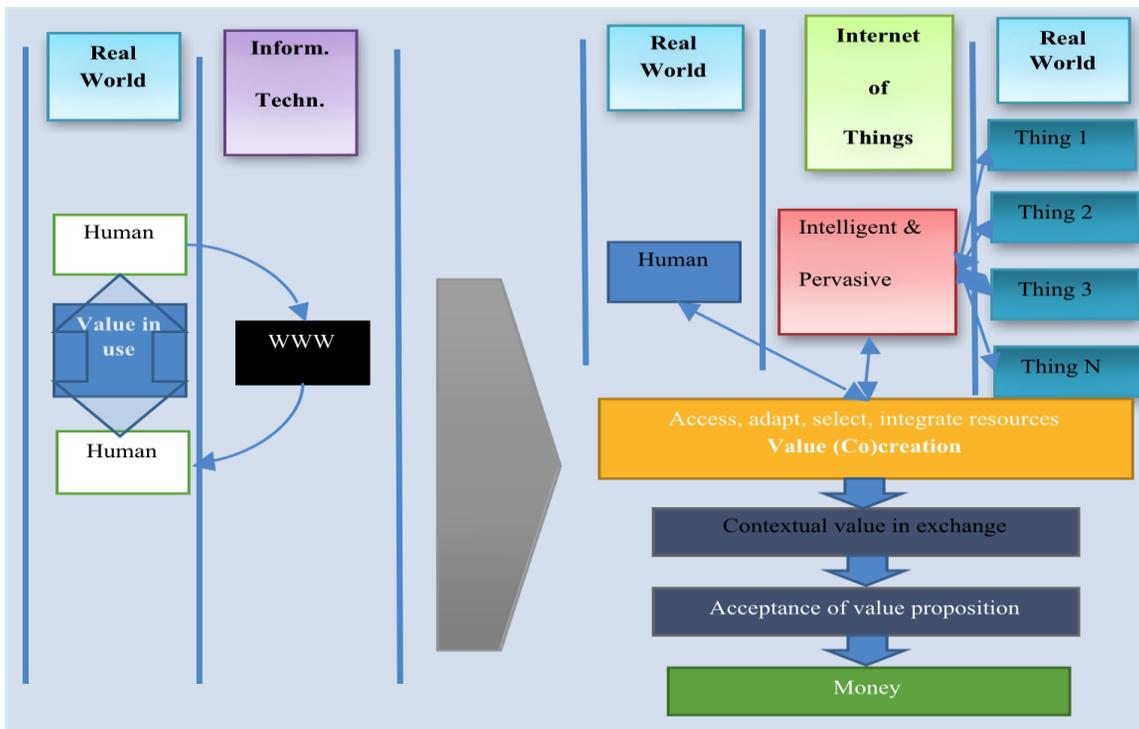


FIG. 2: FROM INTERNET OF PEOPLE TO INTERNET OF THINGS

Source: our elaboration

This study could be considered a first step in a stream of research on some unexplored aspects of IoT. This may involve in future, quantitative surveys, new practices and research challenges concerning Internet of Things and value co-creation in a service dominant logic perspective.

References

- [1] Akaka, M. A., & Vargo, S. L. (2013). Technology as an operant resource in service (eco) systems. *Information Systems and e-Business Management*, 1-18.
- [2] Ashton, K. (2009). "That 'internet of things' thing". *RFiD Journal*, 22, 97-114.
- [3] Atzori, L., Iera, A., & Morabito, G. (2010). The internet of things: A survey. *Computer networks*, 54(15), 2787-2805.
- [4] Bogers, M., Afuah, A. & Bastian, B. (2010) 'Users as innovators: a review, critique, and future research directions', *Journal of Management* 36(4), 857–75.
- [5] CASAGRAS/Coordination and Support Action for Global RFID-related Activities and Standardization (2008, September), Interim report. Available: <http://www.rfidglobal.eu/userfiles/documents/FinalReport.pdf>. Accessed 1 April 2014.
- [6] CERP-IoT. (2009). *Internet of Things Strategic Research Roadmap*. Available: <http://www.grifsmooring.pdf>. Accessed 5 April 2014.
- [7] Coetzee, L., & Eksteen, J. (2011, May). The Internet of Things-promise for the future? An introduction. In *IST-Africa Conference Proceedings, 2011* (pp. 1-9). IEEE.
- [8] Constantin, J. A., & Lusch, R. F. (1994). *Understanding resource management*. Burr Ridge, IL: Irwin Professional.
- [9] Cover, R. (2006). "Audience inter/active: interactive media, narrative control and reconceiving audience history". *New Media and Society*, 8(1), 139–58.
- [10] EpoSS. (2008). *Internet of Things in 2020: Roadmap for the Future*.
- [11] Giusto, D., Lera, A., Morabito, G., & Atzori, L. (2010). *The Internet of Things*. Berlin/Heidelberg, Germany: Springer.
- [12] Greer, C. and Lei, D. (2012). "Collaborative innovation with customers: a review of the literature and suggestions for future research". *International Journal of Management Reviews* 14(1), 63–84.
- [13] Gubbi, J., Buyya, R., Marusic, S., & Palaniswami, M. (2013). "Internet of Things (IoT): A vision, architectural elements, and future directions". *Future Generation Computer Systems* 29(7), 1645-1660.
- [14] Gummesson, E., Lusch, R.F. & Vargo, S.L. (2010), "Transitioning from service management to service-dominant logic: observations and recommendations". *International Journal of Quality and Service Sciences* 2(1), 8-22.
- [15] Haller, S., Karnouskos, S., & Schroth, C. (2009). *The internet of things in an enterprise context*. In *Future Internet-FIS 2008* (pp. 14-28). Springer Berlin Heidelberg.
- [16] Hribernik, K. A., Ghairi, Z., Hans, C., & Thoben, K. D. (2011, June). Co-creating the Internet of Things—First experiences in the participatory design of Intelligent Products with Arduino. In *Concurrent Enterprising (ICE), 2011 17th International Conference on* (pp. 1-9). IEEE.
- [17] IoT, C.E.R.P. (2009). *Internet of Things Strategic Research Roadmap* [OL].
- [18] ITU (2005). "The internet of things". *ITU Report*, Geneva: International Telecommunication Union.
- [19] Vargo, S.L., & Lusch, R.F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of marketing Science*, 36(1), 1-10.
- [22] Lusch, R.F., and Vargo, S.L. (2006). Service-dominant logic: reactions, reflections and refinements. *Marketing theory* 6(3), 281-288.
- [21] Maglio, P. P., Vargo, S. L., Caswell, N., & Spohrer, J. (2009). The service system is the basic abstraction of service science. *Information Systems and e-business Management*, 7(4), 395-406.
- [22] Mahalle, P. N., Anggorojati, B., Prasad, N. R., & Prasad, R. (2013). Identity Authentication and Capability Based Access Control (IACAC) for the Internet of Things. *Journal of Cyber Security and Mobility* 1(4), 309-348.
- [23] Miles, M.B., & Huberman, M.A. (1994), *Qualitative Data Analysis*, Thousand Oaks, CA: Sage.
- [24] Miorandi, D., Sicari, S., De Pellegrini, F., & Chlamtac, I. (2012). "Internet of things: Vision, applications and research challenges". *Ad Hoc Networks* 10(7), 1497-1516.
- [25] Normann, R. (2001). *Reframing business: When the map changes the landscape*. New York: Wiley.

- [26] O'Connor, J. (2000). "The definition of the "cultural industries". *The European Journal of Arts Education*, 2, 3, pp.15–27.
- [27] Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of interactive marketing*, 18(3), 5-14.
- [28] Prahalad, C. K., & Ramaswamy, V. (2000). Co-opting customer competence. *Harvard business review*, 78(1), 79-90.
- [29] Ramaswamy, V. (2009). Leading the transformation to co-creation of value. *Strategy & Leadership*, 37(2), 32-37.
- [30] Ryan, B., Scapens, R. &Theobald, M. (2002), *Research Method and Methodology in Finance and Accounting*, 2nd ed., Thomson, London.
- [31] Sánchez López, T., Ransinghe, D. C., Harrison, M., & McFarlane, D. (2011). Adding sense to the Internet of Things-An architecture framework for Smart Object systems. *Personal and Ubiquitous Computing*, 1-18.
- [32] Tan, L., & Wang, N. (2010, August). Future internet: The internet of things. In *Advanced Computer Theory and Engineering (ICACTE), 2010 3rd International Conference on* (Vol. 5, pp. V5-376). IEEE.
- [33] Uckelmann, D., Harrison, M., & Michahelles, F. (2011). An architectural approach towards the future internet of things. In *Architecting the Internet of Things* (pp. 1-24). Springer Berlin Heidelberg.
- [34] Vargo, S. L. (2008). "Customer Integration and Value Creation: Paradigmatic Traps and Perspectives". *Journal Of Service Research*, 11 (2), 211–215.
- [35] Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of marketing*, 68(1), 1-17.
- [36] Vargo, S. L., Lusch, R. F., & Morgan, F. W. (2006). Historical perspectives on service-dominant logic. *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, ME Sharpe, Armonk, NY, 29-42.
- [37] Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of marketing Science*, 36(1), 1-10.
- [38] Vargo, S. L., Maglio, P. P., & Akaka, M. A. (2008). On value and value co-creation: A service systems and service logic perspective. *European management journal*, 26(3), 145-152.
- [39] Vermesan, O., Friess, P., Guillemin, P., Gusmeroli, S., Sundmaeker, H., Bassi, A., Soler Jubert, I., Mazura, M., Harrison, M., Eisenhauer, H., & Doody, P. (2011). Internet of things strategic research roadmap. *Internet of Things-Global Technological and Societal Trends*, 9-52.
- [40] Yin, R.K. (1994), *Case Study Research*, 2nd ed., Sage Publications, London.
- [41] Yin, R.K. (2003), *Case Study Research: Design and Methods*, 2nd ed., Sage Publications, Thousand Oaks, CA.

**The Impact of Information technology, Information and
Communication Flow and Storage Control**

*Filip Petrínek, filip.petrínek@fm.uniba.sk
Michal Greguš, michal.greguš.ml@fm.uniba.sk,
Faculty of Management, Comenius University in Bratislava, Slovakia*

The Impact of Information technology, Information and Communication Flow and Storage Control

Abstract

Governance bodies and management need to be cognizant of various impacts of information technology (IT). The paper deals with the topic of the right to control the flow of data including the storage of communication. The authors are focusing on the issue of executing this right in the right of the Slovak Electronic Communications Act. The main point of the paper is tracking a probable realization of the constitutional-law violation of this kind of data retention in relation to the right for personal privacy. Since this interstate act was a result of implementation of the EU Directive 2006/24/EC on the retention of data generated or processed in connection with the provision of publicly available electronic communications services or of public communications networks this topic is gaining a kind of global dimension.

Wide range of communication possibilities as well as the mobility of communication devices led the legislation to the state that is reaction of the law to the development of communication devices, media and related to this, methods of communication. It is the diversity of technical communication presented not only by the plurality of devices, but also by a wide range of communication interfaces and a multitude of operators that became a base for the necessity to deal with issues connected to communication and its operation in the legislation itself.

Compared to previous decades, where the exchange of information has been carried out by conventional means, such as in particular the telephone (landline) or post, we are now faced with technically almost unlimited possibilities of transmission of the information, which in addition to the plurality of communication devices cannot be watched over, but even their range of use cannot be defined in advance. In the case of exchange of information we cannot be talking about some kind of evolution similar to the development of technical means of communication. Whether we are talking about the era of antiquity, modernity, or the present day, the content of communication between people is categorically the same information. Thus, we are talking about the content of the communication, which in principle is not a subject to evolutionary development. Despite the 'cosmetic changes' of a certain era in which communication between people has been taking place, we are always talking about categorically the same content of the communication (business communication, personal life, arranging meetings, etc.). New Era presented mainly by the developments over the last 15 years, however, has led to almost revolutionary changes in the way we communicate. Here we should pay attention especially to the wording "*the Method of communication.*" The method is defined primarily by the form in which the above-mentioned content of the communication takes place. The primary means of communication presented by gestured characters through inception of speech, the transfer of information in the written form, later the transport of information via couriers, mail, telegram, telephone and now the internet are cross-linked by a common endeavor towards a simpler and immediate transmission of information. This phenomenon has reached its greatest expression in the current times, when the means of communication meet the most numerous choices in which the exchange of information can take place.

Coupled with a wide range of communication options, comes a possibility of misuse of these means of communication for the exchange of information, carrying along an unlawful content. A significant element of modern communications that is the capability for immediate exchange of information has become the focus of criminals as a possible direct assistance to reach a more flexible fulfillment of their goals. As well as the communication itself, also the attainment of an unlawful result has become more easily achievable and the process of its execution became more coordinated. The shady side of the evolving phenomenon of modern communication has not escaped the attention of the competent authorities that have decided to monitor the exchange of information related to the illegal conduct.

Circumstances that stood behind the early initiative of observing the information communication, has not been only committed illegal activities, but also the importance of the data from the traffic presented as information with a neutral value is leading us to the conclusion of the fundamental importance of such data and their potential value. Reflecting on the circumstances that led state authorities to justify this kind of initiative, raises the questions, that are as significant in itself as the answers to them.

The reason for monitoring

As we already mentioned above, wide scale of communication capabilities offer in addition to the positive side based on flexible exchange of information also some negatives related to the transmission of information useful during criminal activities. The coordination of an offender with other offenders during committing a criminal act or coordination of a group of people involved in the crime is one of the most important factors in the process of the preparation of offence and its execution. This factor has one of the key positions in the successful accomplishment of the crime. This factor has become one of the essential facts among the reasons in justifying the necessity to adopt such articles into the legislation allowing and permitting monitoring of the communication traffic.

Mentioned circumstances suggest a classical reasoning process of new legislation in the national legislative process. In the case of the act we are talking about in this article however we cannot speak about the classical way of passing this legislation. Monitoring of the communication service has been initiated into the legal systems of the EU member states by the Directive No. 2006/24/EC. Since this is a secondary act of EU law with an indirect effect, it was necessary to incorporate the text into a national law. The implementation process was carried out in the Slovak Republic by adopting a new law called Act. No. 351/2011: Act on Electronic Communications. The main scope of this directive is stating conditions for providing and use of electronic communications networks, the rights and obligations of business subjects and users, as well as privacy, processing of personal data and competence of state administration in the field of electronic communications.

Basically we are talking about a relatively wide scope of the Directive, which by their nature resembles an area that should be regulated by regulations with national origin. In this case, however, the content is mostly taken from the above-mentioned Directive of the European Parliament and the Council. In order to clarify the origin of this initiative we pay particular attention to the reasons why was this Directive from the initiative of the EU bodies created.

Modern era beside all the inventions, cosmopolitanism and international interactions has also introduced certain negative aspects that bear similarities to those already mentioned. Conflicts of interest and clashes that accompanied the evolution of humanity right from the beginning itself adapted their character to the character of this modern era. These circumstances have become one of the reasons for the adoption of legislation constituting the collection of communication data. The large-scale terrorist attacks in the United States were the reason that initiated the idea of retention of communications data. Even better said, it was not only the justification of the need for such treatment of the private rights, but rather a kind of regret of the necessity in its intervention into private integrity of the monitored individuals.

History

Although we talk about monitoring of communication devices, it should be noted that in this case that the devices are not so relevant in itself, rather than the *user*. Therefore we are talking about a subject who carries certain identifiable characteristics. Despite the fact that the given individual is an entity that carries personal integrity and therefore, the rights and obligations, it is necessary to note that with respect to the effects of the Slovak law and even with respect to the effect of the Directive this natural person becomes the object of the monitoring and also of the automated analysis of the individual identifiers- *personal data*.

Regarding the evaluation of the development of the area of monitoring, we must note that it is *the protection of personal data* which will take in this sense one of the dominant positions. End of nineties in the EU showed a trend towards maximum protection of privacy and personal data of citizens in the field of electronic communications. Directive on the protection of privacy in the telecommunications¹, adopted in 1997 strengthened the privacy of phone users, mobile phones users, digital television users and users of other telecommunications devices. It is especially worth mentioning the duty of the mobile operators to erase all of the data after the call has ended, as well as substantially reducing the possibility for private companies to use their customer data for marketing purposes. This trend in protection of privacy and personal data continued to evolving of the next Directive in 2000. Here, however,

¹ **Directive 97/66/EC of the European Parliament and of the Council of 15 December 1997 concerning the processing of personal data and the protection of privacy in the telecommunications sector**

took place an initiative of the Council, which was focused on the effort to include the obligations of Internet and mobile operators to retain data on telecommunications for use by security, police and judicial authorities to the draft of the directive. This initiative resulted in the response of the Committee on Civil Liberties, Justice and Home Affairs (LIBE), which rejected the proposal, arguing that the proposed measures would expose citizens *an unacceptable level of a very intensive supervision*. The Committee likened this draft to a legislation known as the *American Patriot act*. It is this Act and the original initiative of its adoption in the U.S. which has become a model for the introduction of similar arrangements in the EU Community law. The terrorist attacks of 11 September as well as U.S. political pressure reinforced supporting some EU states² increased attention to "data retention". Thus there was subsequently adopted Directive on privacy and electronic communications³, which in Art. 15 (1), entitled "Application of certain provisions of the Directive No. 95/46/EC "establishes the right of Member States to adopt legislative measures to *restrict the scope of rights and obligations* regarding the handling of personal data when such restriction *constitutes a necessary, appropriate and proportionate* measure within a democratic society to safeguard national security (ie State security), defense , public security and the prevention, investigation, detection and prosecution of criminal offenses. To this purpose, Member States may, adopt legislative measures providing the retention of data for a limited period justified on the grounds laid down in this paragraph. This general clause presented a major breakthrough in the regulation of privacy and personal data in the given period.

Later terrorist bomb attacks in Madrid in 2004, created a reliable base for the adoption of rules to guarantee the availability of traffic and location data for counterterrorism purposes in the Member States of the Union. These facts were reflected in legal reality by the European Council Declaration on Combating Terrorism of 25 March 2004⁴. This document presents the European Council instructed the Council to consider "proposals for establishing rules on the retention of communication traffic services" with a view to adoption in 2005. This priority was confirmed in the Conclusions of the European Council of 16th-17th June and also at the extraordinary meeting of the Justice of the terrorist attacks and Home Affairs on 13 July 2005 in London⁵. Noteworthy is the fact that at the time when the Directive was evolving, the chair of the Council was held by Great Britain, which developed an enormous pressure for the adoption of the Directive, which is known by an abnormal except by legislative process, also reflected an unprecedented hearing the shortest time of approval in the history of the EU. The time between the presentations of the Commission's proposal in its adoption by the European Parliament lasted only three months instead of the usual legislative developments take years. The mood during the pending before the legislative approval wasn't quite monotonous. Against the approving the proposal stood wave of resistance, mainly by Working Party 29, the European Confederation of police EuroCOP and European Personal Data Protection Supervisor Peter Hustinx. The largest response of disagreement, was however, echoed by two of the largest and most important European organizations to protect privacy: European Digital Rights (EDRi) and Privacy International⁶, as well as by the European consumer organization BEUC⁷. Despite the public initiative of over 50,000 Europeans signed against the adoption of the Directive, the Directive was in March 2006 finally adopted. The single statements of retention of communications data should be under this Directive harmonized by the laws of the Member States. Providers of publicly available electronic communications services are so obligatory acquired to keep them preventative generated or processed traffic

² United Kingdom and Spain

³ **Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications).**

⁴ European Council Declaration on Combating Terrorism, 7906/04, at 5 (Mar. 25, 2004).

⁵ Proposal for a Directive of the European Parliament and of the Council on the retention of data processed in connection with the provision of public electronic communication services and amending Directive 2002/58/EC, COM (2005) 438 final (21.9.2005)

⁶ <https://www.privacyinternational.org/blog/pi-forges-coalition-to-call-on-european-parliament-to-reject-data-retention>.

⁷ BEUC brings together 44 independent consumer associations from 31 European countries. For more see: <http://www.beuc.org>.

and location data in the specified range for some time with the obligation to disclose to them to a legitimate authority of the Member State.

Impact on the constitutionality

Although in this case we are talking about the legislative system of the Slovak Republic, we must remember that the Constitution of the Slovak Republic, as well as other constitutional majority of EU member states, is based on the same principles. The origin of these principles is hidden in the historical development of free and democratic societies based on respect of dividing the public power and maintaining the civil rights. It is for this reason that the constitutional fate of this Directive is in many member states the same. Its provisions have run into legal principles that have law-natural character which is not limited by state borders principle.

Before we move on to questions of constitutionality, we must define what the monitoring actually means. Directive brought the notion of monitoring in Articles 4 to 8. Article 4 of the Directive provides that "*Member States shall take measures to ensure that the data specified in Article 5 of this Directive shall be kept in accordance with its provisions, to the extent that they are generated or processed by providers of publicly communication services or of public communications network within their platform in the process of supplying the communications services.*" This provision thus symbolized a **key title for the retention of communications data** and their subsequent use. The Article 5 defines the categories of data which are subject to retention:

- a) Data necessary to trace and identify the **source**,
- b) Data necessary to trace and identify the **respondent**
- c) Data necessary to identify the **date, time and duration**
- d) Data necessary to identify the **type**
- e) Data necessary to identify **users** of a communication device or alleged device
and
- f) Data necessary to identify the **location** of mobile communication equipment.

Directive in this article points out, that it does not serve as a tracking tool and states that "in accordance with this Directive shall not retain any data revealing the **content** of the communication." Legislative bodies of the EU wanted to give this provision clear that monitoring communications **should not be confused** as a force into the integrity of the person to such as is known as a common practice in criminal proceedings against the suspects.

However, the question stands: "was this goal fully filled?"

One of the fundamental constitutional rights, is the right to secure the confidence of the correspondence. This right defines the Constitution of the Slovak republic in Art. 22 together with the personal data protection as guaranteed by the words "no one may violate the secrecy of letters and other written records, which are kept in private, or sent by mail or otherwise, except the cases provided and stated by law." "Similarly, is guaranteed the secrecy of communications provided by telephone, telegraph, or other similar device." It follows that the main subject in this context is **all custom content** of the communication. The European Court of Human Rights in its cases, however, indicates that such breach to the private life must be understood despite checking the contents of mail and telephone calls⁸ also in sense of checking the caller identification numbers⁹ of people, or storing information that the person made a phone call with somebody¹⁰. It makes no difference whether the data were somehow used or disclosed¹¹. In

⁸ ECHR judgment in the matter Klaas vs Germany, 22 9th 1993, no complaint. 15473/89.

⁹ ECHR judgment in the matter P.G. and J.H. vs United Kingdom, 25 9th 2001, no complaint. 44787/98 and ECHR Judgment, Malone vs United Kingdom, 2 8th 1984, no complaint. 8691/79

¹⁰ ECHR judgment in the matter Man vs. Switzerland, 16 Second 2000, no complaint. 327798/95.

¹¹ ECHR judgment in the matter of Copland vs UK, 3 4th 2007, no complaint. 62617/00, ECHR Judgment in the case Rotar vs Romania, 4 5th 2000, no. 28341/95

literature we find also that "interference with the fundamental rights and breaching the private life means not only immediate intervention, but also measures of state authorities, which *can predict the effect the restriction* of fundamental rights and freedoms."¹²

Although the constitutional right to protection of confidentiality of correspondence speaks primarily to ensure proper content of the communication, the legal practice states that this content should not be *the only subject* to protection under the substantive law. In the case of data relating to communications and especially data on the course and method of operation therefore we are not talking only about the *content* of communication as such, but also about the data which were during making the communication response created. These data figures *actually part of the content* of the communication, whereas they are inextricably linked to the main content of the communication. This is the main reason why we have to consider this kind of "side information" to have an appropriate form of protection as the content itself. These data represent a kind of "metadata" of the main communication and have a comparable value of informative worth as the content itself. Ultimately, their private character is as though they are a separate entity but operating as a single unit in-time with the main content. Therefore they are a genuine part.

The Act established for the saving of these communication data duration based on the Directive itself, divided into 6 months of communicating via the Internet, and 12 months for other types of communication. This duration, however presents a latent danger of further intervention by public authorities. This risk is increased by the fact that deposit of the data itself is entrusted to *the communication services operator, which is a private person*. It is a known fact that the interests of private entrepreneurs are to reduce costs to a minimum. Together with the fact that the data is maintained by many employees of the provider also contributes to the increased risk that deposit of these data wont be taken by a such care that could be called as a fully *secured storage*.

Communication data

As mentioned above, under the notion of "*data communication*" is in the course of monitoring understood the *operational data, location data* and an indication of *communicating parties*. The significance of these data can apparently sound like a formal statement of provided communication without any actual content. But the opposite is true. The essence which these communications data have with the pure content in common is their information value. Not just the content itself may have for monitoring an information value, but often it is just this "metadata" information, which is capable of many important clues about an individual's profile and its behavioral side. Based on these data, it is possible to compile a comprehensive profile of the individual for his *personality, communication* and *physical* side. It is possible from these data to compile such as group of contacts of the concerned person, her private life as well as the intensity of the social and interpersonal relationships. Any information obtained may be meaningful to the private site of the person who has a very sensitive nature. The collection of the communication data may finally testify a personal life of a person (such as calling in the night a nightclub may point that this person is single and live a rich social life), some psychological methods are eligible to determine of concentrated communication data either a sexual orientation of the person. Combining different communication data in the internet traffic may testify many about the very probable content of the communication. The nature of the recipient, the e-mail address can be as *alcoholic@sanatorium.com* or *marriage_affairs@consultant.com* clearly tells not only about the pure fact that a communication was made between these recipients, but it also testifies for personal status of certain person. In this way the data communication shall gain even higher value of the information meaning than just providers. Based on the logical interpretation of the real (interpersonal) environment, this blunt data is talking also about an indication of the activities of man, as well as about the range of his personal life and problems. Even the telephone communication is analogous to that question. In the case when comparing two respondents of communication that communicate regularly and for some time they change location to a location that is right for them common at the same time, this fact suggests that these people were together at the same time and in the same place outside the place where they normally reside. On basis of this profile, it is possible to predict the behavior of the individual.¹³

¹² Windthorst, K. Verfassungsrecht I. Grundlagen, 1st vydanie, Munich, 1994, p. 295, ISBN 9783406385360.

¹³ More on: <http://reality.media.mit.edu/dyads.php>.

Despite the fact that the communication data does not include a statement about the actual content, its character is significant with regard to its information value. It isn't necessary to build a collage of communication data to give a comprehensive profile of each individual, just that single communication data contains information about a particular a time, location and the respondents involved to the communication. This fact also supports the very notion of the importance of the value of this information to the content of communication itself, which is explicitly protected by the communications secret.

Reflecting on the nature of the communication data also leads us to conclude that the *identification value* of the so-called simple data of the providing of the communication. This value is increased by the fact that the operating data may earn such status as the personal data itself. Personal data is in the virtue of the Slovak law defined as "data related to an *identified* or identifiable natural person who *can be identified, directly or indirectly*, in particular by the general identifier or *to one or more factors* specific to his physical, physiological, mental, economic, cultural or social *identity*."

Above mentioned facts lead us to conclude that communication data, especially in conjunction with the first and last name, respectively the phone number itself, can fulfill the nature comparable to the nature of the personal data.

Specific situation is the case of collecting the communication data of the person who has a specific status. In particular, we recognize the cases of lawyers, doctors and journalists specially protected by the right of confidentiality of communications. This specific nature of their activities leads them to the obligation to maintain the secrecy among their professional affairs¹⁴. The content of the communication data is in the case of these persons confident information regarded to the area of their clients as well as the frequency and intensity of their communication.

The Slovak Act on advocacy in its § 23 stipulates the direct duty secrecy by the advocates profession "of all the facts they *learned in relation to the practice of law*, must be kept by the obligation of maintaining the secrecy." It is also provided that "deprives the lawyer confidentiality obligations is possible only by the decision of his client and after the client's death or termination of a client just his successor. If the client has more successors, effectively depriving the lawyer confidentiality obligation requires expression of will of all successors client. The act must be done in written form only" In a similar vein, the duty of confidentiality to his client is formulated in any other professions. At this point, therefore arises a question concerning the observance of confidentiality, in the event that they have a liable entity communicating with them via the form that is monitored. Definite answer can be derived from logical reasoning on this issue, namely, that monitoring of the communication is directly leading to the information involving the area of the clients themselves. This view is either supported by § 9 (1) of the Lawyers code of the Slovak Advocates Chamber¹⁵, which states that: "A lawyer shall keep confidential all matters on which he learned during his profession (§ 23 of the Act on advocacy), as well as *personal data* protected by special law. "This rule extends or rather said specify the area involving the duty of confidentiality on the personal information of clients and individuals included in the pending legal matters. Given that the Act on Electronic Communications (Directive and therefore itself) are stating a cross board and non-addressed monitoring, this power gets into conflict with the sovereign right of the client and the responsibility of the individual professions for keeping the confidentiality of concerned data. Regardless of the formulating the obligation of confidentiality to the beneficiary, it must be emphasized that this confidentiality is dedicated to a concrete area of a concrete persons. So if we talk about secrecy as such, we are talking primarily about identifying the entities that are required to maintain the confidentiality of all facts on which they learned during their professional relations. Although the point of secrecy is based on the protection of the content and common relationship, it has to be stressed that this relations are based on the concrete subjects that are identifiable by their identification data. It is undisputed that by the monitoring of the communication is processed by the gaining and storing the data of the respondents. This fact leads us to conclusion that this process is threatening the very pure point of keeping the secrecy and confidence of the respondents involved in the communication. As is known in the democratic and transparent societies custom provisions protecting fundamental rights and transparency before the public authorities are also applied in the Slovak law. One of the most important breach in the private life is

¹⁴ For example: § 80 Act no. 578/2004 Z.z., § 23 Act. No. 586/2003 Z.z

¹⁵ https://www.sak.sk/blox/cms/sk/sak/doc/37/42/___docList___/rows/123/attr/name/preview; 18.2.2013

the interception performance. This competence is in Slovak law involved in the Code of Criminal Procedure, where its performance is a subject to strict oversight and approval responsibilities. The Criminal Procedure defines monitoring as "the collection of information on the movement and activities of people or things moving, which is done as a classified manner" This power is not absolute and it is a subject to an approval by the competent authority. The formal title for the implementation of monitoring is the "command" which is issued in written form. Before starting the prosecution it is issued by the chairman of the court senate, and after the criminal prosecution (pre-trial) is the state attorney (prosecutor) the reliable person. As can be seen, the mutual relation of competence, to carry a criminal tracking information is comparable to the information based on the data from the processed communication. In both cases, we are talking about obtaining the same category of information about the monitored person, who may have the same meaning during their evaluation.

In this connection it should be noted the position of an advocate in criminal proceedings. In obtaining information for criminal proceedings in the form of tracking a person's is said that "If during the interception and recording of the telecommunication process is noted that accused person is talking to his defender, this cannot be used for law enforcement purposes and must be immediately erased"¹⁶ Similar statement to already mentioned isn't in the Act on Electronic Communications even in the Directive even stated.

We can therefore conclude that the power to obtain information about persons and their relations movement is in the case of the *simultaneous existence* of two nearly identical regulations about the governing powers of state authorities *dealt with a different approach* to the protection of a fundamental constitutional rights and professional obligations of persons involved in the communication.

As an individual group in this context stands the group of journalists. Monitoring of the communications of a person engaged in the profession of journalism is a restriction on freedom of expression and freedom of the press (Article 26 of the Constitution). By tracking the respondents included in communications with journalists is also a direct violation of the Press Law¹⁷, which about the protection of sources and content says: "Publishers of periodicals and press agencies must not disclose the source of their information obtained for the publication so that it cannot determine the identity of the source, when the source ask for keeping this information in secrecy."

In the interest of full secrecy and protection of subjects and places where communication is made, there is no other way to search for alternative options of communication which is not subject to monitoring by virtue of the Act on Electronic Communications. It should be noted, however, that these alternative routes do not meet the essence of practicality and flexibility.

Procedural issues of the using communication data

In the case of the obligation of the communication provider to retain the data, is a necessity to give a few words about the protection and the guaranties against the misuse of these data.

In order to maintain the confidentiality and security of the communication data related to a particular person is required to establish legislation on a highest possible level of safety equivalent to the current state of knowledge in this area which will be independent on the discretion of private providers, who will primarily reflect mainly economic perspective¹⁸. Slovak legislation is solving the essence of safety in the fifth part of the Electronic Communications Act, entitled "Protection of networks and devices" and "the integrity and safety of networks and services." The Act solves these issues in a very general way and addresses the duty to take an appropriate technical and organizational measures to the liability of providers of communications services. Legislative solution of the processing and storage of communication data enters into circumstances, when state receives the benefit of their retention, but the responsibility for the storage, as well as a guarantee of confidentiality, in our opinion, quite unjustifiably left to the responsibility of the private entity. The state should, in this respect at least establish a legal framework corresponding

¹⁶ Act. No. 301/2005 Z.z. Art. No. 115 (1) tiež Art. No. 113 (3)

¹⁷ Art. No. 4 (1) of the Act no. 167/2008 Coll (Press Act)

¹⁸ Judgment of the German Federal Constitutional Court dated 2.3.2010, 1 BvR 256/08, 1 BvR 586/08

to internationally recognized criteria for data protection in storage of the providers and indirectly to guarantee surveillance on the compliance with the provisions of the safety parameters and monitoring by its authority. Otherwise will the *legally vague terms* such as "*appropriate technical and organizational measures to protect the security of networks and services*" or "*state of the technique providing the level of security that is appropriate to the risk*" become only a the subject of subjective interpretation by the private provider. It is worth to say either about the potential risk of misuse of data stored on the provider, especially for the purpose of marketing their services. The issue of insurance of the personal data is a sensitive issue in Europe. According to Ponemom institute, which conducted a survey in 785 British companies focused on information technology, has been granted a 55% loss of data in these companies, 49% had experienced more than two cases in the last two years¹⁹. Currently, when the IT business has become one of the fastest growing and most prevalent type of business can be drawn an issue on security of data stored in repositories of such companies. With respect to the economic side of security and technical demands on their protection is therefore appropriate to consider *the necessity of keeping some data* in information systems. Consideration of this issue is based mainly on the *purpose and necessity* of storing as well as the *effectiveness* of their further use.

The limitation of fundamental rights and freedoms can only occur if it is to achieve the intended objective *appropriate and necessary* and such action is not due to its intensity in *proportion* to the importance of the case and the injury caused to the persons concerned. In view of these facts it is therefore necessary to subject the obligation to retain data the proportionality test. This mean is a standardized legal instrument of European Constitutional Courts as well as the international ones used to determine the conflict in terms of the provisions of law relating to the protection of constitutionally guaranteed rights or public interest with another fundamental right or freedom.²⁰

This principle is processed on the basis of three criteria:

- Test examines whether the *legitimate aim* is not to achieve a legitimate aim
- Necessity test examines whether *such action is necessary* to achieve the objective of
- Test of proportionality *stricto sensu* determines *whether the injury* on the fundamental right *is not disproportionate to the intended objective*.

Ad.1 Test of the legitimate aim

Data retention is a tool used by the state to ensure national security, defense and public safety. It is thus an important social goal.

Ad. 2 Test of the necessity

At this point it should be assessed whether the retention of traffic and location data is really so necessary for the protection of the public interest in a democratic society. Furthermore, if the range of data stored and the retention period is required by criminological research to combat this type of crime. Also, whether there are less invasive and equally effective ways of combating a serious crime.

Ad. 3 Test of the proportionality in the narrow sense

The adequacy of the impact of these measures on the affected person must be taken into account in particular the effectiveness of this information in the fight against serious crime, the extent and severity of the interference with the constitutional right to privacy in respect of minor regulations, which the Act in fact is and also the assessment of the existence of adequate and sufficient safeguards against abuse stored data. At this point it should be noted the essence of who stood to justify the adoption of adjustment data retention. The underlying point of this action lies justifying the right to breach the privacy in respect of the protection of society and the state. This protection is specified as "*the right of criminal proceeding authorities, court and other state authorities to request the provision of data communication for the purpose of investigation, detection crimes and prosecution of criminal offenses related to*

¹⁹ Source: <http://securityworld.cz/securityworld/alarmujici-vyzkum-vice-nez-polovine-britskych-firem-jiz-unikla-data-251>; 10.2.2013.

²⁰ Volker und Markus Schecke GbR C-92/09 a C-93/09

terrorism, illicit trafficking, organized crime, evasion and compromise of classified information as criminal acts committed by a dangerous group.” It is thus an exercise of procedural rights during criminal proceedings. The very fact that the communication performance is monitored for these purposes and it is done cross board and in indirect way leads us to conclude that the conflict with the principle called “*praesumptio boni viri*” known as the **presumption of innocence**. This principle is an old law institute, whose roots go back to the germ of the rule of law and protection of essential civil and human rights. We’re talking mainly about the right to a fair trial, which is character by an accusation process where the nature of the trial is based on the dispute between the accusers and the accused (the defender). This process is the opposite process of evolutionary older Inquisition process, which did not apply the presumption of innocence and due to the defendant bears the burden of obligation to convince the trial he is innocent, because the actual allegations were held him guilty.

We see a similar comparison in the case of processing the communication data in order for their potential uses for the investigation of the above-mentioned crimes. Cross boarded monitoring as indicated by the fact that non-targeted and automated data collection leads to conclusion about **violating the presumption of innocence** to the citizens who are blameless in these cases.

Efficiency

One of the principal criminological studies in this area is the study of the Max Planck Institute entitled “Stuzlucken Wegfall der durch Vorratdatenspeicherung?”²¹. The results of the study point to the fact that collecting location data (probably for the reasons given above) does not at all comply a better detection of serious crime. In following it is arguable that from the nature of these types of crimes stipulates that the crime carrying the characteristic signs of a serious nature will be not easily detectable or implied. The offenders of these crimes, often acting in clusters have a reliable information only about the best committing their plan, but also a well knowledge of the methods of the crime detection an its investigation. In consideration of coordinating their joint action, as well as enforcement of a particular offender in the course of committing the offense is not expected that the criminal investigation of the relevant facts in this case will be built on reliable information, use of communications data.

Standalone issue is communicating via service provider of a third country and thus beside the validity of the Directive. The effectiveness of the Directive is limited by the territorial determinism of the states that have implemented the rules of Directive and therefore providers who do not have the territorial jurisdiction of the retention of communications data act are not obligated to store such a data.

Another example is communicating via the depository in an e-mail account. Information stored as a draft is not transported and thus not follow the sphere, which is under the control of monitoring.

It is worth mentioning the possibility of making the communication anonymous by The Onion Router (TOR) and the JAP (jondo). Commercial services offering anonymous actions are based largely on proxy servers.

The above mentioned facts suggest that there are many other ways either easier or more difficult to avoid monitoring the communication. It should be emphasized that the perpetrators of organized crime know much more sophisticated ways to avoid forensic analytical methods to track them. Based on these facts, we can therefore conclude that the ambitions of the legislature in this area to justify approval of the data retention are not likely to achieve the target resolutions.

Constitutional factors

Adoption of Directive 2006/24/EC was accompanied by legal turbulences in several EU member states. The amount of negative feedback on the unconstitutionality of this provision was reflected in the proceedings on the constitutional courts. It was mainly on the country where the directive declared unconstitutional between which they are mainly Germany, Czech Republic, Romania, Bulgaria and Cyprus. Germany, Czech Republic Romania haven’t adopted any

²¹ http://vds.brauchts.net/MPI_VDS_Studie.pdf.

statements related to the Directive which would replace the previous one. Romanian Constitutional Court explicitly rejected the constitutionality of *per se*. Some Member States have still not transposed the Directive because of its unconstitutionality.

By the virtue of the competence of the Court of the European union²², we could engage to the views of the unconstitutionality of articles of the Directive providing for the retention of the data itself, the extent and duration of storage. It is mainly a question of compliance with the provisions of the Charter of Fundamental Rights. Nor the pure fact that the EU acts as a secondary result of the legislative does not release these rules from doubts about their reliability and constitutionality. Therefore, it is also necessary for this regulation approach to the analytical evaluation of the site for legitimacy, proportionality and the protection guaranteed natural rights and freedoms. The Court in this regard says that *"it should be ascertained whether the Council of the European Union and the Commission held a balanced consideration of the interests of the Union in order to ensure the transparency of its actions and the optimal use of public funds on the one hand, and interference with the rights of the beneficiaries in their private life and the general specific protection of their personal data on the other. Exceptions and limitations of privacy must operate within what is strictly necessary."*

Constitutional court of the Slovak Republic, as constitutional courts of other Member States would therefore be in accordance with Article No. 276 of the Treaty on the Functioning of the European Union, request the Court of Justice of the European Union to assess compliance with the principle of retention of Articles 7, 8 and 52 paragraph 1 of the Charter of Fundamental Rights of the European Union. Also, it must be examined by the Council and the Commission, in adopting the Directive, and in particular with a view to considering the interests of the Union to ensure the protection society against serious crime and the interference with the rights of all citizens of the Union and interference in their private life and personal data on the other side.

Conclusion

Present times brought with them many changes of the course of events and social relations. This result demonstrates the need for the fast transfer of information for the purpose of fast communications and interoperability either for the better professional or the social life. These facts have led the majority of the population to using modern communication technologies to ensure the fulfillment of their interests. But the reality is that these technologies, contrary to the straightforward way of exchange of information, depend on a third party in this relationship that acts as an intermediary for the transfer of the contents of communication. Participants of the communication thus become increasingly dependent not only on their communications devices, but also on the way in which their communication takes place. Important in this regard is that in the very near future these forms of communication will spread not only in relation to the range of communications devices, but also in relation to the number of users of these devices. The essence of classical communication based on spatially closed parties is now being reshaped into the communication based on network access of the participants. This trend we could call the technical centralization of information exchange. Despite the fact that the outcome of these developments has brought to us a great deal of accessibility and convenience, It also has brought along better capability of committing crime. One has to consider the question whether the government intervention into confidentiality of our contacts and communication corresponds to a protection of a society, of which we ourselves are part of.

²² Decisions Scarlet Extended C-70/10, Volker und Markus Schecke Gbr C-92/09 and C-360/10 SABAM and C93/09.

References

- [1] Cunningham A., Reed Ch.; Caveat Consumer? – Consumer Protection and Cloud Computing Part 1 – Issues of Definition in the Cloud; Queen Mary University of London, School of Law; Queen Mary School of Law Legal Studies Research Paper No. 130/2013, London 2013
- [2] Greguš. M.; Elektronický obchod a informačné technológie ako strategická výhoda organizácie; In: Internet v riadení a obchode firmy- Zborník z medzinárodnej konferencie, Bratislava 1999
- [3] Cloud computing and EU data protection law; Part one: Understanding the international issues; <http://blogs.computerworlduk.com/cloud-vision/2011/09/cloud-computing-and-eu-data-protection-law/index.htm>
- [4] Hon W. K., Millard Ch. Walden I.; Who is Responsible for 'Personal Data' in Cloud Computing? The Cloud of Unknowing, Part 2; Queen Mary School of Law Legal Studies Research Paper No. 77/2011; London 2011
- [5] Gregušová, D., Petrínek, F.: Cloud Computing a jeho miesto v súčasnej informačnej spoločnosti. In: Procesno-právne predpisy a ich vplyv na efektivitu konania orgánov verejnej moci. Zborník z medzinárodnej konferencie. Sládkovičovo MMXII. VŠ v Sládkovičove 2012. ISBN 978-80-89267-89-7

Business Strategy

TQM firms, risks identification and the use of non-financial performance measures: an empirical investigation

Antonio Costantini, antonio.costantini@uniud.it
Filippo Zanin, filippo.zanin@uniud.it
University of Udine, Italy

TQM firms, risks identification and the use of non-financial performance measures: an empirical investigation

Abstract

Both total quality management (TQM) and risk management (RM) are concerned with the realization of strategy. Some authors have recently focused on the potential integration of quality management and RM, highlighting the need of combining information to improve decision making.

The exploratory study presented in this paper addresses the field of TQM and RM, to investigate the influence of the adoption of TQM on risk identification in a sample of large Italian firms. Further, drawing also special attention to the effects of the intangible resources, it examines differences on emphasis placed by firms on non-financial performance measures.

The results are based on a survey and non-parametric statistical data analysis is employed.

The sampled firms are divided in TQM firms and non-TQM firms, and comparisons are provided between the two groups of firms with reference to the importance placed on identification of strategic risks (Simons, 1999) and to the emphasis placed on non-financial performance measures.

Introduction

In a contemporary manufacturing environment characterized by the challenges of global competition, the search for competitive advantage has raised “the priority of quality and risks in industrial and business strategies” (Kenett and Tapiero, 2009). In international markets, consumers have increasingly required high quality products and services; advanced managerial and manufacturing practices, such as total quality management, have known a significant dissemination during the last decades. Risk management has also become an important topic in recent years, and the interest has intensified in the aftermath of the 2008 crisis and other corporate disasters (Mikes and Kaplan, 2013).

Quality, defined as “the consistent conformance to customers’ expectations” of products or services (Slack et al., 2001), has risen to a strategic competitive variable (Chenhall, 1997) and TQM has become a “pervasive strategic force in today’s industrial economy” (Powell, 1995). Thus, scholars have recognized total quality management (TQM) as a business level strategy (Reed et al., 2000) and have demonstrated the existence of a link between the use of TQM practices within organizations and the achievement of competitive advantages (Douglas and Judge, 2001). Other authors (e.g. Prajogo and Sohal, 2006; Yung et al., 2009) have recognized that TQM can support the implementation of a differentiation strategy, whereas the relationships between TQM and a cost leadership strategy are weaker. Since TQM requires firms to coordinate a wide range of intangible resources, the resource theory of the firm provides an appropriate perspective for analyzing the effects of the use of quality management practices on firm’s performance (Powell, 1995).

At the same time, many questions about risk need to be taken into account in formulating business strategies; risk may represent a threat to the ability of an enterprise to execute business processes effectively and to achieve strategic objectives (Baird and Thomas, 1985; O’Donnell, 2005). RM is the process whereby firms methodically address the risks relating to their activities (Dequae, 2007). The development of an integrated RM approach (commonly referred to as Enterprise Risk Management), in which all risks are viewed together within a coordinated and strategic framework, seeks to directly relate RM with business strategy and objective-setting (Power, 2007; CoSO, 2004; Arena et al., 2010). Several authors emphasize the role of RM as a critical tool in supporting strategic decision making (e.g. Nocco and Stulz, 2006; Frigo and Anderson, 2011).

The resource theory of the firm recognized that the central theme for explaining the achievement of a competitive advantage is the role of factors that are internal to the firm. Idiosyncratic resources contribute to create a superior market position allowing the firm to generate more valuable returns (Conner and Prahalad, 1996; Barney, 1996). Resources include: “assets, capabilities, organizational processes, firms attributes, information and knowledge” (Barney, 1991) and can be classified in three all-encompassing categories: physical, human and organizational. However, as knowledge management became more widely implemented and sophisticated, the intangible resources

are viewed as being the main drivers of TQM and RM performance impacts. This new emphasis on intangible resources in quality and risk management literature allows to shed light on how and why the implementation of TQM and RM practices unleashes the potential to generate benefits for firms.

The exploratory study presented in this paper addresses the field of TQM, RM, and performance measures. In particular, the study aims to investigate the influence of the adoption of TQM on risks identification and on the use of non-financial performance measures in 58 large Italian firms. The sampled firms are divided in TQM firms and non-TQM firms, and comparisons are provided between the two groups of firms with reference to both the importance placed on identification of strategic risks (Simons, 1999) and on the use of non-financial performance measures.

Literature review

The literature view is divided in three sections. The first section provides an overview on the key characteristics of TQM and RM, whereas the second one deals with the connections between TQM and RM. Finally, the third section examines TQM's role as a strategic resource, drawing on the resource based theory of the firm and intangible literature.

TQM and RM

TQM is the most significant contemporary approach to QM. TQM is “an integrated management philosophy and set of practices that emphasizes, among other things, continuous improvement, meeting customers' requirements, reducing rework, long-range thinking, increased employee involvement and teamwork, process redesign, competitive benchmarking, team-based problem solving, constant measurement of results, and closer relationship with suppliers” (Powell, 1995). It lays particular stress on the need to provide customers with high quality products, in order to increase efficiency at all stages of the production process (Chenhall, 1997). Under a TQM approach, quality managers attempt to minimise the likelihood of potential events (failures) in the operations which can be critical for product quality and reliability (Slack et al., 2001). In other words, TQM is based on the principle of risk prevention.

RM is a process representing “a critical facet of an organisation's control system where timely identification, assessment and management of the portfolio of risks faced by an entity are linked with the achievement of its goals and objectives” (Subramaniam et al., 2011). It is developed through a coordinated set of actions, directed at identifying and assessing risks that could affect the firm's capability to achieve its objectives. Risk identification is the first phase in RM operationalisation, and it is based on the development and update of a list of potential events (risk register) to which the firm is exposed and that could affect both business process performance and the ability to achieve objectives (O'Donnell, 2005). Since RM embraces the whole organization instead of focusing on specific parts, the range of risk typologies has been continuously enlarged, shifting away from operational risks toward strategic and competitive risks.

Simons (1999) defines strategic risk as “an unexpected event or set of conditions that significantly reduces the ability of managers to implement their intended business strategy”, whereas competitive risk relates to changes in the competitive environment which affect the ability of a company to differentiate its products/services from its competitors. He identifies different sources of strategic risks, among which operational risks, asset impairment risks, competitive risks and reputational risks¹.

Operational risks derive “from the consequences of a breakdown in a core operating, manufacturing, or processing capability” and it can result from human errors, system failures, and inadequate processes or controls. Operational risks are often the results of poor management of key processes by the firms and its staff (Williams et al., 2006), and can hamper the flow of high quality products, exposing the firm to potential loss and liabilities.

Competitive risks can arise from events involving: a) the actions of competitors in developing higher quality products and services; b) changes in regulation and public policy; c) shifts in customer tastes or desires; d) changes in supplier pricing and policies. Moreover, competitive risks can also be caused by inappropriate employee behavior in dealing with customers, suppliers, and competitors.

Reputational risks² are linked to business problems or actions adversely affecting customer perceptions of value in using the business's products or services, or to a loss of confidence by other stakeholders (Simons, 1999).

Reputational risks may occur as a consequence of excessive operational risk, asset impairment risk, or competitive risk.

Connections between TQM and RM

Williams et al. (2006) have addressed a number of key issues in examining the connections between the field of risk management and the field of quality management. They recognize three ways in which quality management expertise and experience can influence RM: “(1) in distinguishing between risks which can, and which cannot, be treated statistically; (2) through knowledge and experience in managing key processes; and (3) in implementing major organizational and cultural change”.

TQM and RM also share other common concerns. They both deal with problems resulting from uncertainty, driven by internal or external causes, which are subject to probabilities defining their occurrence. As a result, they are both required to handle variability and may resort to statistical methods. As Kenett and Tapiero (2009) highlight, “the many tools used in managing risks seek to define and maintain the quality performance of organizations, their products, services and processes”.

Popescu and Dascalu (2011) suggest that a risk-based approach strengthens the effectiveness of quality management systems. They propose a methodological framework for integrating RM in QM, assuming that “the two dimensions complement each other, being components of the indicator system that measure the performance of the organization”. RM is seen as a key activity, associated with a wide set of decisions in support of strategic management, project changes and basic processes.

Further, as Nitu et al. (2011) note, the international standard ISO 9004:2009 explicitly includes RM as a key feature of quality management process for organizations which are interested in continuous improvement. In ISO 9004:2009, the identification and assessment of risks is considered as an element of TQM principles.

TQM, RM and intangibles

Scholars argue that TQM and RM practices can be used to generate competitive advantage, improving product and process quality and then increasing revenues and customer’s satisfaction and reducing risks (Powell, 1995). Because TQM and RM implementation requires firms to “coordinate a wide range of behavioral, tacit and intangible resources” (Powell, 1995), literature in TQM and RM has paid substantial attention to the role of intangible resources in improving a firm’s performance. The diffusion of knowledge management practices both in manufacturing and service firms, allows to move the TQM and RM theory landscape to the resource theory of the firm emphasizing the role of intangible resources and, thus, overlapping with the traditional management theory (Dean and Bowen, 1994). This new dimension of theory building has generated an immediate appeal for drawing new insights on the theoretical link that exist between TQM (and other quality management practices) and a firm’s competitive advantage.

The adoption of resource based theory and, especially, the intangibles literature allows to expand the knowledge of the quality literature introducing a new lens for studying the benefits of the use of quality management practices (Reed et al., 2000). Among the authors a complete agreement exists about the benefits of the use of TQM practices: improving customer satisfaction and reducing costs. These two benefits are increasingly explained by using the model centered on the firm’s resources that provide a superior market position. Firm’s resources are organizational factors that are firm-specific, embedded in the firm’s culture and history, difficult to imitate, path-dependent and developed over time. These resources are viewed as being the main drivers of competitive advantage and their nature is increasingly becoming intangible. The “lasting and superior nature of intangible resources” (Hall, 1993) allow to better explore, from a theoretical perspective, the relationship between TQM and competitive advantage. Using concepts from the intangible literature, scholars showed how the process of TQM and other quality practices has the potential to create a sustainable competitive advantage. Human and organizational factors (such as competencies, team work, leadership, training, top management commitment, norms, procedures and manufacturing processes non-financial performance measures) are identified as a fundamental component of TQM practices and, then, they are considered in exploring and understanding the potential for competitive advantage generation.

Development of hypotheses

The identification of strategic risks and their mitigation are recognized as important factors for the implementation of a strategy aimed at meeting customer needs and, thus, to improve a firm's performance. In the TQM context, the identification and mitigation of strategic risks are at the heart of successful TQM implementation. Adopting the Simons approach (1999), strategic risks can be divided into: a) operational risks, b) competitive risks, c) reputational risks. All these categories identify specific types of intangible resources that are rooted in human (capabilities, training, commitment, leadership) and organizational factors (procedures, rules, reputation).

Concerning the operational risk, TQM practices are aimed to bring quality improvements and to reduce costs. They rely on the detection and the analysis of what can go wrong in key operational processes. Thus, TQM firms pay particular attention to potential failures regarding operations design, facilities (machines, equipment, buildings) and staff (Slack et al., 2001) and are more oriented to introduce knowledge management tools for making operational processes more transparent and knowable. TQM approaches are mainly based on efforts for workforce training and knowledge formalisation intended to eliminate operational errors and product or service defects. Thus, these considerations suggest the following hypothesis:

H1a: The identification of operational risks is more important in TQM firms than in non-TQM firms

Concerning the competitive risk, TQM practices typically are focused on understanding customers' need and their evolution over time in order to meet their requirements. To entail closer relationships with customers, TQM firms use benchmarking techniques and acquire specific market knowledge from customers and competitors (Powell, 1995). Moreover, TQM firms put attention to the role and responsibility of personnel because their behaviors can affect the relationships with customers and competitors. Popescu and Dascalu (2011) note how analysis of suppliers developed by TQM firms represents a specific form of risk analysis, and Avanesov (2009) suggests that TQM must take into account risks arising from the competitive environment in which the firm operates and from environmental changes. Thus, these considerations suggest the following hypothesis:

H1b: The identification of competitive risks is more important in TQM firms than in non-TQM firms

Concerning the reputational risk, TQM practices are oriented to significantly influence customers' perception. A positive reputation is an important driver of successful relationship with customers (Ruso et al., 2012) and can affect a firm's performance. For example, the reputation for delivering high quality products and services can enable firms to charge higher prices and earn higher profits (Kaynak, 2003). Further, firm reputation may be considered as a signal of the firm's ability to satisfy the customer's expectations (Nguyen and Leblanc, 2001). Under TQM, reputation among customers is a primary source of competitive advantage (Powell, 1995). Despite most firms considering reputational risk as a consequence of operational or competitive risk, and damages to reputation are rarely acknowledged by audit or risk committees (CIMA, 2007), TQM firms assign a crucial importance to the detection of a wide range of failures to meet customers' expectations. These considerations suggest the following hypothesis:

H1c: The identification of reputational risks is more important in TQM firms than in non-TQM firms

As already stated, scholars agree that the main aim of TQM is to reduce cost and improve customers' satisfaction. Equally consistent is the view that the link between the use of TQM and competitive advantage is theoretically validated (Flynn et al., 1995, Powell, 1995) but there have been only a few attempts to empirically verify it.

For example, Easton & Jarrell (1998) investigated the impact of TQM on the performance of 108 firms that began TQM implementation between 1981 and 1991. Hendricks and Singhal (1996) explored the link between quality and financial performance analysing accounting data of firms that have won quality awards, against a control group

of non-winners. Powell (1995) examined 39 US manufacturing firms and found that only the intangible aspects of quality practices (employee commitment, shared vision, customer focus) contributed to organizational performance.

While the definition of TQM is well established in literature, performance remains a loosely defined construct. This multifaceted concept makes the selection of the most suitable indicators difficult. Previous research on the link between TQM practices and performance has covered both soft and hard performance indicators. Hard indicators are accounting variables, while soft indicators (non-financial performance measures) are strictly linked to intangible and intellectual dimensions of the sources of competitive advantage. As Mc Adam & Bannister (2001) suggested, both hard and soft measures of performance are needed within the TQM framework. However, considering that TQM has an extensive focus on intangible and intellectual variables, we argue that the analysis aiming at empirically verifying the link between TQM and performance should also focus on non-financial measures.

Thus, according to the literature on TQM, we state that the use of TQM practices can accomplish the following internal benefits: a) improving efficiency and enhancing productivity (Hendricks and Singhal, 1997); b) improving human resources management (Ho et al., 2001) b) increasing customer satisfaction and loyalty (Handfield et al., 1999).

Ittner and Larcker (1995) suggest that TQM practices are related to information systems placing greater emphasis on non-financial performance measures, including physical measures of operational performance, information regarding the workers performing the job, and customer satisfaction. Abdel-Maksoud et al. (2005) conclude that TQM firms “are likely to take considerable interest in a wide range of non-financial measures”.

These considerations suggest the following hypothesis:

H2: In TQM firms non-financial performance measures are more important than in non-TQM firms

Research design and data collection

The study employs a survey-based methodology, using a questionnaire to collect data.

The questionnaire was compiled by the Chief Financial Officer (CFO) and Chief Executive Officer (CEO) of a sample of large Italian manufacturing companies. Only firms with at least 500 employees were included in the target sample, which was selected from the population of firms (49 firms) included in the dataset obtained by the Industrial, Commerce and Agriculture Confederation (CCIAA). The CCIAA dataset captures all the Italian companies and it contains companies listed on the Milan Stock Exchange.

We focus on a sample of large size firms, as several studies agree that size is a determinant of RM adoption (Mikes and Kaplan, 2013).

The survey was structured in three phases. In the first phase, a random sample of 179 firms was selected, and a letter was mailed to the firms' CEO or CFO in order to ask them for the availability to receive and compile the questionnaire. 70 firms agreed to be surveyed. In the second phase, a web questionnaire was sent to them. A total of 58 complete and usable questionnaires were returned, giving a response rate of 32.4%.

In order to assess the possibility of non-response bias, we conducted a comparison of the profile of respondents against a sector of firms in the selected sample. This comparison showed that respondents are significantly similar to sampled firms with regard to sector. For the sample selection, we considered the hypothesis of missing-at-random.

The questionnaire consists of four sections: information on firm characteristics (including a question on the use of TQM practices), pressures from business environment and business strategies, implemented by listed and non-listed in large manufacturing firms, impact of the business strategy on management accounting innovations, influence of the business strategy on risk management techniques.

The questionnaire was pilot-tested by a number of face-to-face interviews with Chief Risk Officers (CROs) or CFOs operating in different sectors. Semi-structured interviews were used to insure the pertinence of the questions and to amend their formulation.

Measures

Firms are classified into two groups, according to whether they use TQM or not. An item of the questionnaire requested firms to indicate whether they use TQM practices. A value of 1 was attached to firms using TQM and a value of 0 to firms that do not use TQM.

Another item requested firms to indicate whether they effect a RM process in order to identify specific strategic risks.

In order to study the relationship between TQM and the identification of strategic risks, the respondents of firms using RM were asked to indicate on a 5-point Likert scale (from 1 = not important to 5 = crucial) the relevance assigned to the identification of the different sources of strategic risks: operational risk, competitive risk, and reputational risk.

Moreover, in order to study the relationship between TQM practices and the importance of non-financial performance measures, the respondents of TQM firms were asked to indicate on a 5-point Likert scale (from 1 = not important to 5 = crucial) the relevance assigned to different non-financial performance measures.

To test the hypotheses, a Mann-Whitney test (Conover, 1980) was used. Mann-Whitney is a rank-based test which allows to detect differences in the locations of two groups of observations. We applied it to compare the average importance assigned to the identification of strategic risks and to the use of various RM quantitative techniques across the two groups of firms (TQM firms and non-TQM).

Survey results

Table 1 summarizes the categorisation of firms that responded to the survey according to whether they use TQM practices and whether they effect a RM process.

The majority of respondents in the sample (56,9%) use TQM practices, and most of the firms (almost 71%) effect RM processes in order to identify, assess and control risks.

TABLE 1 – SUMMARY STATISTICS ON RESPONDENT FIRMS

	RM	Non RM	Total
TQM firms	24	9	33
Non-TQM firms	17	8	25
Total	41	17	58

Table 2 summarizes responses on the importance assigned by firms to the identification of the different strategic risks. Mean and standard deviation are displayed separately for each source of strategic risk and for the two groups of firms (TQM and non-TQM). The results of statistical analysis (one-sided Mann-Whitney test) are also presented, with the aim to understand whether the use of TQM practices affects the identification of strategic risks and thus to test H1a, H1b, H1c.

Table 2 shows that there are significant differences (at the 5% level or at the 10% level) between the two groups of companies regarding the importance attached to the identification of strategic risks in the RM process. In particular, although both TQM and non-TQM firms using RM rely on the identification of strategic risks (the mean importance is larger than 3 in all cases), the average importance is significantly higher for TQM firms in relation to all sources of strategic risk. The attention required by TQM principles to quality failure diagnosis and prevention and to continuous improvement may lead managers to take into account, in the RM process, a number of potential events affecting operations, employee behavior in dealing with customers, suppliers and competitors, and reputation. These potential events, as sources of strategic risks, can produce an adverse influence on customer perceptions and require managerial attention in order to mitigate them.

TABLE 2 – A COMPARISON OF THE IMPORTANCE OF IDENTIFYING STRATEGIC RISKS FOR THE TWO GROUPS OF FIRMS

	TQM firms		Non-TQM firms		Mann-Whitney	p-value
	Mean	SD	Mean	SD		
Operational risk	3.96	0.93	3.43	0.76	216.0	0.033**
Competitive risk	4.04	0.82	3.64	0.84	204.5	0.075*
Reputational risk	3.96	1.07	3.40	0.83	230.5	0.037**

*Significant at: * 0.10 level; ** 0.05 level

Hypothesis 2 (H2) seeks to identify a relationship between the use of TQM practices and the importance placed on non-financial performance measures. Since non-financial performance is a multifaceted construct, we try to provide empirical evidence on whether or not implementation of TQM practices affects the importance of three levels of firm's non-financial performance measures: physical measures of operational performance, human resources and customer satisfaction. Based on the results of literature review (e.g. Abdel-Maksoud et al., 2005), we identify 10 variables able to explain the different levels of performance measures. The variables from 1 to 5 concern physical measures of operational performance; the variables 6-8 concern human resources and, finally, variables 7-9-10 concern customer satisfaction.

Table 3 displays the mean scores and the standard deviations for the responses provided. Mann-Whitney test and p-values are included, as well. Statistical results highlight that there are significant differences between TQM firms and non-TQM firms concerning manufacturing cycle efficiency and on-time delivery to customers. Moreover, the results show that the relationship between TQM practices and defects and capacity utilisation is positive but with a lower standard coefficient.

TABLE 3 – A COMPARISON OF THE IMPORTANCE OF NON-FINANCIAL PERFORMANCES MEASURES FOR THE TWO GROUPS OF FIRMS

	TQM firms		Non-TQM firms		Mann-Whitney	p-value
	Mean	SD	Mean	SD		
Number of set-ups	2.56	1.16	2.27	1.05	485.5	0.132
Manufacturing cycle efficiency	3.59	0.84	3.12	1.18	523.0	0.038**
Defects	3.81	0.82	3.38	1.17	499.0	0.083*
Efficiency	3.88	0.86	3.88	0.91	413.5	0.973
Capacity utilisation	3.75	0.80	3.50	0.91	496.5	0.089*
Schedule adherence	3.41	0.87	3.12	0.95	483.0	0.135
On-time delivery to customers	4.06	0.98	3.65	0.80	533.0	0.027**
Absenteeism	3.00	0.98	2.69	0.93	492.0	0.103
Number of complaints from	3.75	1.05	3.50	1.07	476.5	0.163
Number of customer returns	3.09	1.30	2.96	1.28	443.0	0.335

Discussion and conclusions

This exploratory study, based on a large firms sample, provides an initial attempt to identify the effects of the use of TQM practices on RM, as regards risk identification, and provides insights on the use of non-financial measures of performance by TQM firms.

A first result of the study demonstrates that TQM firms are interested in monitoring strategic risks and, thus, are more attentive in managing intangible resources that underpin the TQM implementation. Some of the suggestions of recent literature and TQM standards appear to have been implemented in practice.

We considered strategic risks that can stem from three sources of strategic risk: operational, competitive and reputational. Strategic risks identification is a source of information about the firm's operating and competitive environment, and a tool for continuous improvement in the extent it allows failures prevention and provides managers with a better knowledge and comprehension of their business and of the events that can prevent the firm from achieving its strategic objectives.

By statistical analysis we explore the differences between the two groups of large firms (TQM firms and non-TQM firms) on the emphasis placed on the identification of operational (H1a), competitive (H1b) and reputational risks (H1c). The results of the statistical analysis allow us to accept the hypotheses. Thus, a first result of the study is that in TQM firms (using RM) the identification of strategic risks is more important than in non-TQM firms (using RM). Our expectation is supported by the data.

A second result is that TQM firms partially place greater emphasis on non-financial performance measures than non-TQM firms. We examined the differences between the two groups of large firms (TQM firms and non-TQM firms) in relation to the importance recognized in the use of non-financial performance measures. Differences are not significant, with the exception of manufacturing cycle efficiency, on-time delivery to customers, defects and capacity utilisation, which are significantly more important for TQM firms. Thus, H2 is only partially accepted.

As with any research, this study has various limitations. Firstly, due to the limited number of observations, this study raises questions about the generalisability of the survey results. A test was conducted in order to prevent the threat of non-response bias, but, although the response rate is 32.4%, we can not definitely assert that respondent firms are suitable substitutes for the whole population of Italian large firms.

Moreover, there may be different "environmental factors that potentially affect the use of RM", e.g. regulatory pressures (Subramaniam et al., 2011), or internal factors, e.g. the culture of RM throughout the firm (Mikes, 2009), whereas this study considers a single factor.

Ultimately, further research is necessary in order to better understand the connections between TQM and RM.

References

- [1] Abdel Maksoud, A. A., Dugdale, D., & Luther, L. (2005), Non-financial performance measurement in manufacturing companies, *The British Accounting Review*, 37, 261-297.
- [2] Arena, M., Arnaboldi, M., & Azzone, G. (2010). The organizational dynamics of enterprise risk management. *Accounting, Organizations and Society*, 35(7), 659-675.
- [3] Avanesov, E. (2009). Risk management in ISO 9000 series standards. In *International Conference on Risk Assessment and Management, Geneva, 24-25 November 2009*.
- [4] Baird, I. S., & Thomas, H. (1985). Toward a contingency model of strategic risk taking. *Academy of Management Review*, 10(2), 230-243.
- [5] Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.
- [6] Barney, J. B. (1996). The resource-based theory of the firm. *Organization Science*, 7(5), 469.
- [7] Chartered Institute of Management Accountants (CIMA) (2007). *Corporate reputation: perspectives of measuring and managing a principal risk*. London, UK.
- [8] Chenhall, R. H. (1997). Reliance on manufacturing performance measures, total quality management and organizational performance. *Management Accounting Research*, 8(2), 187-206.
- [9] Committee of the Sponsoring Organizations of the Treadway Commission (CoSO) (2004). *Enterprise risk management – Integrated Framework*. New York: American Institute of Certified Public Accountants.
- [10] Conner, K. R., & Prahalad, C. K. (1996). *A resource-based theory of the firm: Knowledge versus opportunism*, 7(5), 477-501.
- [11] Conover, W.J. (1980). *Practical nonparametric statistics*. New York: John Wiley.
- [12] Dean Jr, J. W. & Bowen, D. E. (1994). Toward a model of organization as model of interpretation systems. *Academy of Management Review*, 2, 249-295.
- [13] Dequae, M.-G. (2007), Evolution in risk management. In *Reuvid, J. (Ed.), Managing business risk: a practical guide to protecting your business*, 5-11. Kogan Page Publishers.
- [14] Douglas, T. J., & Judge, W. Q. (2001). Total quality management implementation and competitive advantage: the role of structural control and exploration. *Academy of Management Journal*, 44(1), 158-169.
- [15] Easton, G. S. & Jarrell, S. L. (1998). The effects of total quality management on corporate performance: an empirical investigation. *Journal of Business*, 71, 253-307.
- [16] Flynn, B. B., Schroeder, R. G., & Sakakibara, S. (1995). The impact of quality management practices on performance and competitive advantage, *Decision Science*, 26, 659-691.
- [17] Fombrun, C., & Riel, C. B. M. (1997). The reputational landscape. *Corporate reputation review*, 1(1-2), 5-13.
- [18] Frigo, M. L., & Anderson, R. J. (2011). Strategic risk management: a foundation for improving enterprise risk management and governance. *Journal of Corporate Accounting & Finance*, 22(3), 81-88.
- [19] Hall, R. (1993). A framework linking intangible resources and capabilities to sustainable competitive advantage. *Strategic Management Journal*, 14, 607-618.
- [20] Handfield, R., Jayaram, J., & Ghosh, S. (1999). An empirical examination of quality tool deployment patterns and their impact on performance. *International Journal of Production Research*, 37, 1403-1426.
- [21] Hendricks, K. B. & Singhal, V. R. (1996). Quality awards and the market value of the firm. An empirical investigation, *Management Science*, 42(3), 415-436.
- [22] Ho, D. C. K., Duffy, V. G., & Shih, H. M. (2001). Total quality management: An empirical test for mediation effect. *International Journal of Production Research*, 39, 529-548
- [23] Ittner, C. D., & Larcker, D. F. (1995), Total Quality Management and the choice of information and reward systems. *Journal of Accounting Research*, 33, 1-34.
- [24] Jung, J. Y., Wang, Y. J., & Wu, S. (2009). Competitive strategy, TQM practice, and continuous improvement of international project management - A contingency study. *International Journal of Quality & Reliability Management*, 26(2), 164-183.
- [25] Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of operations management*, 21(4), 405-435.

- [26] Kenett, R. S., & Tapiero, C. S. (2009). Quality, risk and the Taleb quadrants. *Risk and Decision Analysis*, 1(4), 231-246.
- [27] McAdam, R., & Bannister, A. (2001). Business performance measurement and change management within a TQM framework. *International Journal of Operations & Production Management*, 21(1/2), 88 - 108
- [28] Mikes, A. (2009). Risk management and calculative cultures. *Management Accounting Research*, 20(1), 18-40.
- [29] Mikes, A., & Kaplan, R. S. (2013). *Managing Risks: Towards a Contingency Theory of Enterprise Risk Management*. Working paper 13-063. Harvard Business School.
- [30] Nguyen, N., & Leblanc, G. (2001). Corporate image and corporate reputation in customers' retention decisions in services. *Journal of retailing and Consumer Services*, 8(4), 227-236.
- [31] Nitu, L., Nitu, L. D., & Solomon, G. (2011). ISO 9004 and risk management in practice. *U.P.B. Scientific Bulletin, Series D*, 73(4), 2011
- [32] Nocco, B. W., & Stulz, R. M. (2006). Enterprise risk management: Theory and practice. *Journal of Applied Corporate Finance*, 18(4), 8-20.
- [33] O'Donnell, E. (2005). Enterprise risk management: A systems-thinking framework for the event identification phase. *International Journal of Accounting Information Systems*, 6(3), 177-195.
- [34] Popescu, M. & Dascalu, A. (2011), Considerations on integrating risk and quality management. *Annals of "Dunarea de Jos"*
- [35] *University of Galati, Fascicle I. Economics and Applied Informatics, Years XVII – no. 1/2011.*
- [36] Powell, T. C. (1995). Total quality management as competitive advantage: a review and empirical study. *Strategic management journal*, 16(1), 15-37.
- [37] Power, M. (2007). *Organized uncertainty: Designing a world of risk management*. Oxford University Press, Oxford.
- [38] Prajogo, D. I., & Sohal, A. S. (2006). The relationship between organization strategy, total quality management (TQM), and organization performance - the mediating role of TQM. *European Journal of Operational Research*, 168(1), 35-50.
- [39] **Reed, R., Lemak, D. J. & Mero, N. P. (2000). Total quality management and sustainable competitive advantage. *Journal of Quality management*, 5, 5-26.**
- [40] **Ruso, J., Vujosevic, M., & Novakovic, M. (2012). Organization reputation and risk: Stakeholders perception. In Jaksic, M.L. & Barjaktarović Rakočević, S. (Eds.), *Proceedings of the XIII International Symposium SymOrg 2012: Innovative Management and Business Performance, June 5-9 July 2012, Zlatibor, Serbia, 1300-1306.***
- [41] Simons, R. L. (1999). *A note on identifying strategic risk*. Harvard Business School.
- [42] Slack, N., Chambers, S., & Johnston, R. (2001). *Operations management*. Pearson Education.
- [43] Subramaniam, N., Collier, P., Phang, M., & Burke, G. (2011). The effects of perceived business uncertainty, external consultants and risk management on organisational outcomes. *Journal of accounting & organizational change*, 7(2), 132-157.
- [44] Williams, R., Bertsch, B., Dale, B., van der Wiele, T., van Iwaarden, J., Smith, M., & Visser, R. (2006). Quality and risk management: what are the key issues?. *The TQM magazine*, 18(1), 67-86.

End notes

¹ See Simons (1999) for a discussion of all sources of strategic risks.

² A firm's reputation is "a collective representation of a firm's past actions and results that describes the firm's ability to deliver valued outcomes to multiple stakeholders" (Fombrun and Van Riel, 1997). It is built over time, and has to be considered in the context of the marketplace and in relation to the actions of the other firms. Reputation can be influenced by different factors (Bebington *et al.*, 2008): financial performance; management quality; social and environmental responsibility performance; employee quality; the quality of the goods/services provided.

**Managing intangible assets in international contexts:
an empirical analysis on Monza and Brianza SMEs**

*Laura Gavinelli, laura.gavinelli@unimib.it
Alice Mazzucchelli, alice.mazzucchelli@unimib.it
University of Milan-Bicocca, Italy*

Managing intangible assets in international contexts: an empirical analysis on Monza and Brianza SMEs

a. Abstract

The paper presents the results of a quantitative research on 886 SMEs of one of the most productive territories in Italy. The aim is to analyze their internationalization strategies, the entry modes selected and the role played by intangible assets when operating abroad. A questionnaire was distributed with a redemption rate of 21.8%. The data were collected with CAWI method and processed with PCA and Cluster analysis methods. Different strategic approaches have emerged.

Briefly we point out that for the respondents the internationalization process is something consolidated and crucial for their growth, and this is true also for small firms. They go abroad to react to a decreasing domestic demand (both Italian and European) but above all to fulfill the foreign requests (B2B customers). As for entry modes, direct investments are the most diffused, although strategic approach differ among clusters. Intangible resources are key factors for them to keep competitive.

b. Some insights on internationalization and Italian enterprises

In the current economic context internationalization seems to be an inevitable way to survive and grow for most enterprises (Fong Reynoso, Ocampo Figueroa, 2010) and with positive **impact** on their own performance (Pangarkar, 2008). Also for SMEs many things have changed due to the global and dynamic competitive scenario. The current economic/financial crisis has changed the competitive context deeply, challenging SMEs to compete in a global arena and face new markets.

For SMEs the internationalization strategy can become complex if we consider their **limited resources**. In particular, Italian SMEs are characterized by a small financial base, a difficulty in gaining credit, a domestic focus, a limited geographic scope, a family run business, and undercapitalizing situations (Armstrong, Craig, Jackson, Thomson, 2010).

Despite these limits, the internationalization process can drive them exploit their own strategies, expand and improve their capabilities, increase their business (Grant, 1987).

Going abroad, SMEs try to compensate the decreasing domestic demand and at the same time to raise their profitability by allocating, transferring and augmenting their capabilities (Chiao, Yang, 2011).

For instance, with **made in Italy**, many firms have become quite competitive, working in food, fashion, furniture, art and culture industries, thanks to key factors like design, creativity and beauty. If that is true, we cannot forget that other SMEs are performing very well although they operate in different industries like engineering, furniture, electronics, and others. For all these reasons we can state that Italian SMEs can play an important role in the global market (Oviatt, McDougall, 1994). Then, what is the point?

c. Intangible assets and competitive advantage

As we saw, internationalization is not confined to industrial realities, with a high concentration of knowledge, service and technology. It is something reachable also by those enterprises that operate in more traditional sectors and this because they can use unique and valuable resources also on foreign markets. According to the resource-based view (Barney, 1991, Grant, 1991, Wernerfelt, 1984) a firm is unique thanks to its combination of resources and capabilities. Enterprises that deploy effectively unique, inimitable, valuable and rare resources can reach strong competitive advantage, product differentiation and higher profitability (Chiao, Yang, 2011).

Playing on a global arena means investing both on tangible factors and on intangible assets. Managing intangibles is crucial to achieve and defend a competitive advantage (Martin, Harltley, 2006, Aaker, 1989). They can be something that can enrich and bring value to the firm's offering or become a core competence that let the enterprise leverage over its competitors (Zigan, Zeglat, 2010, Hall, 1992).

d. Towards a taxonomy on intangibles

Despite their importance, intangible assets are something difficult to define and manage. The complexity in defining intangibles lies in their articulation, the fact that there is not a unique taxonomy for them and the difficulty of measuring and express them into monetary terms. While tangibles are considered measurable and related to hard factors, intangibles are related to not-so-easily quantifiable soft factors (Lönnqvist, 2002, Williams, 1998).

From the point of view of the theoretical contribution numerous attempts have been carried out by scholars.

Lönnqvist (2004) classifies critical success factors taking into account four dimensions: financial and non-financial, tangibles and intangibles dimensions. Referring to the last one (intangible dimension), we find that financial intangibles can be brand value, goodwill, value of immaterial properties, while among non-financial intangibles we find competences, customer satisfaction, customer retention, innovation, motivation, personnel satisfaction. Zambon and Bergamini (2007) have classified them through six dimensions: customer and market, strategy, innovation and intellectual property rights, human resources, organization, corporate governance. The DTI – Department of Trade and Industry UK Report (2001) provides a list of intangible assets which comprises knowledge, leadership, relationships, communication, culture and values, reputation, trust, skills and competences, systems and processes. Other scholars have proposed different lists of intangible assets to explain SMEs success (Bones, 2007, Brooking, 2010, Watson, 2010, Fong Reynoso, 2008).

With respect to SMEs, intangibles like human capital, reputation, customer relationships, intellectual property and marketing skills are key issues when talking about their success and competitive advantage (Spitzer, 2007) and in response to the growing knowledge economy (Jarvis, Meyrick, Mirkovic, 2006, Watson, 2010).

e. Empirical analysis

f. Motivation for the research

The research presented in this article is based on the “Osservatorio Impresa Monza e Brianza 2013”. The observatory has been organized by CRIET, Research Centre in Territorial Economics – University of Milan-Bicocca, in collaboration with Confindustria Monza and Brianza Association and BNL BNP Paribas Group. Every year the Observatory monitors the enterprises associated with Confindustria Monza and Brianza through a survey which is focused on a specific topic.

The main theme for the 2013 edition was investments for growth. Fig.1 The survey was organized into specific thematic sections: commercial organization and communication, internationalization strategies, access to credit and relations with banks.

The aim of the internationalization section was to investigate the reasons why the sample enterprises do internationalize, particularly from the point of view of motivations, foreign and domestic markets, entry modes they prefer, the entry modes for the future, the motivations to internationalize, the advantages they achieved and the difficulties they came across with.

The survey instrument was a questionnaire administered electronically to the 886 enterprises associated to Confindustria Monza and Brianza Association. The survey period was from 29th October to 22nd December 2013. The data were collected with CAWI method (Computer Assisted Web Interviewing), which was accompanied by an activity of telephone recall (20 days, with 1326 successful calls) and individual telephone tutoring (5 tutors were specifically trained). The use of CAWI method, in combination with the telephone recall, made possible achieve a redemption rate of 21.8% (193 enterprises) for fully completed questionnaires, which reaches 34.1% including partially filled questionnaires (109 enterprises). The redemption rate is in line with the response range commonly reached in surveys which is between 5 and 30 per cent (Diekmann, 2005).

Aim of the research:
Analyze the managerial approach towards some specific issues (sections of questionnaire).

Population frame:
886 enterprises associated to Confindustria Monza and Brianza Association

Sample of respondents:
21,8% (193 fully completed questionnaires)
34,1% (+ 109 partially filled questionnaire)

Structure of the questionnaire:
5 sections, 70 questions

Data collection
CAWI
Period (29th. Oct. – 22nd Dec.12 2013)

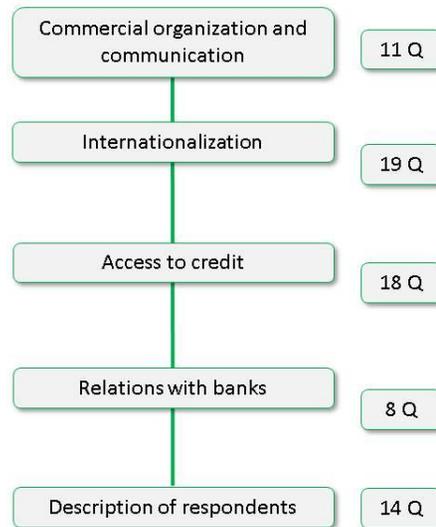


FIG. 1: RESEARCH DESIGN

g.

h. Research methodology

The respondent enterprises represent an auto-selected sample (all the 886 associated firms to Monza and Brianza Association). Even if the total population is small, we assume that it is a significant sample from the point of view of the quality of the data we collected with a CAWI method. This method has been frequently criticized in literature because of its low reliability. Nonetheless the strong involvement of respondents corresponds to more precise information with fewer mistakes and higher reliability (Petty, Cacioppo, 1984; Sears et al., 1980). In addition, the survey is suitable with the aim of the research to gain an overview on the strategic approaches of respondents towards internationalization and intangible assets (Synodinos, 2003). Finally, the associated firms to Confindustria Monza and Brianza Association represent 45.000 employees, with a GDP of 12 billion euro of turnover of one of the most industrialized territories of Italy (Monza and Brianza province).

After constructing the questionnaire a pre-test was carried out in order to check the questions in terms of order and comprehension, lay out of the form, navigation of the platform and eventual problems with the fill in process.

Once gathered the data were processed through the principal component analysis (PCA) and cluster analysis (Johnson and Wickern, 2007). This let individuate groups of enterprises with similar behavior in managing intangible assets in international contexts. In clustering literature, PCA is sometimes applied to reduce the dimension of the data set prior to clustering (Jolliffe I.T., Jones B. and Morgan B.J.T., 1980). In fact, PCA transforms and reduces the dimensionality of the original data set consisting of interrelated variables into a new set of uncorrelated variables called principal components (PCs). These PCs retain of the variation present in the original data set as much as possible (Jolliffe, 2002). In particular, the interrelated variables analyzing the internationalization experience of each enterprise, the main markets to invest in, the entry modes preferred, the investments abroad for the future and the intangible assets used were reduced and transformed. On the basis of five latent variables produced by PCA analysis, a hierarchical cluster analysis was performed to define the number of clusters. The k-means procedure was then used to create clusters. Thanks to this methodology five groups have been individuated so that the enterprises within each group were similar with respect to five latent variables (produced by PCA analysis), and the groups themselves stand apart from one another. At the end, the five groups were analyzed taking into account descriptive info, such as revenue, number of employees, industry, and date of foundation.

i. The sample of respondents

The sample is in line with the peculiarities of Monza and Brianza province. Most respondents are micro and small firms with a turnover below € 10 million euro (72% of respondents) and under 50 employees (78%). The sample is mainly active in engineering industry (23%), but with a good presence in the tertiary sector, chemical and other manufacturing activities (7% of respondents for each sector). As for their main activity they are concentrated on production (46 %) if compared with services (19%) and commercial activities (14%). The sample is mainly active in business to business markets, serving other SMEs (47%) and large enterprises (44 %), retail and wholesale operators (30%) and municipalities (10%). Referring to the governance, the enterprises of Monza and Brianza province are in most cases family-run business (64%) with simple forms of company (66%). The relationship between management and firm size, in terms of employees and turnover, is inversely proportional: this confirms the pattern of the small family-run enterprise which is typical in Italy. Another peculiarity is the established history of respondents: 63% of firms have been settled since the '80s up to the present, while 23% since 2000.

j. The results

In general terms, the research shows that internationalization is a cornerstone for the growth of enterprises in Brianza province. Working abroad allows them to follow their business customers and increase profits. Firms that internationalize have been doing that for a long time (66 firms for over 10 years), although they do have small sized business. In addition, they also intend to internationalize in the next 12 months. In particular, the propensity to internationalize in the coming 12 months is significant: a full 41% of respondents said yes to foreign markets, while only 36% is not interested in going abroad. These data indicate a pretty proactive approach of respondents towards internationalization.

As for the markets, in addition to Europe, which is considered a domestic market (for 32% of respondents), firms operating in the BRICS countries are 19 %, in U.S. (16% of respondents), Eastern Europe (15%) and Arab countries (13%). If compared with 2012 edition of the Observatory, Europe records a significant decrease of attractiveness among respondents: 32% of preferences in 2013, 24% in 2012.

The main reasons that drive enterprises internationalize are to satisfy the foreign market, a decline in domestic demand and the habit of doing so. The advantages obtained in operating on foreign markets refer to the acquisition of new foreign customers, a better corporate image and increasing profits.

However, there are also difficulties: the first lies in the dimensional limits of respondents, the second in making their brand recognizable also abroad and the third in customs barriers (adaptation to local regulations).

Among the investment strategies direct investments prevail. This is a sign of the resourcefulness of firms and their strong intention to oversee the markets with strong relationships with B2B customers: such attitude prevails among the more experienced firms (firms that internationalize for more than 5 years), with a focus on direct sales force (76% of respondents), networks of agents (63%) and subsidiaries and affiliates. Over the past 5 years, the preference of these investments was reversed, putting at the top of preferences branches (26%). If the choice of importers is now an established practice (65%), exporters are less used. Over the last 12 months 50% of respondents have oriented themselves on export consortia. The more recent strategies are those related to agreements with third parties: among the most consolidated options we find equity holdings (75% of respondents), joint ventures (29%) and franchise solutions (20%). As for the last 12 months most respondents signal licenses (33%), followed by franchises and consortia of companies (20% of respondents for both) and "other" (including distribution agreements, consulting, subcontracting, Italian companies with establishments abroad) for 17 % of the sample.

For all respondents intangible assets are something crucial to implement their strategies and to keep competitive among larger competitors.

k. Five clusters with different approaches towards internationalization and intangible assets

Thanks to PCA and Cluster analysis, five different clusters have emerged with specific characteristics and approaches.

As it may be seen from Table 1, **cluster 1 – medium enterprises with traditional approach** – is the second smallest group. It consists of nine enterprises, mainly specialized in engineering industry (33.3%), furniture (22.2%) and textile (11.1%). Most of these enterprises have 50 to 249 employees (medium sized enterprises) with 2 to 50 million euro turnover (small and medium sized enterprises). About 78% of enterprises are family run business.

Moreover, this cluster exhibits the highest score for business experience. In fact, with an average experience of 48 years.

Cluster 2 – small enterprises with global approach – consists of six enterprises. It is the smallest of the five clusters. It is characterized by enterprises that mainly belong to engineering (66.7%) and electronic industry (16.7%). Cluster consists of small sized enterprises: their turnover is between 2 to 10 million euro of turnover and the majority of the enterprises has 10 to 49 employees. Moreover, they have both family and managerial running and show a 31 years' business experience.

Cluster 3 – the youngest enterprises with managerial approach – comprises companies with 20-year business experience and are run in most cases by managers. This cluster contains 14 enterprises that mainly belong to the engineering and manufacturing (21.4% each) and tertiary sector (14.3%). Furthermore, the enterprises in cluster 3 have 10 to 49 employees and an average turnover of 0-50 million euro.

Cluster 4 –small enterprises with traditional approach – is the second largest group: it consists of 35 micro and small sized enterprises. In fact, they have a number of employees in the range of 1 to 49 and a million euro turnover in the range of 0 to 10. Moreover, they are specialized in engineering, textile and construction industries and present a 29 years of business experience. About 63% of these enterprises are family run business.

Finally, **cluster 5 – medium enterprises with proactive approach** – is the largest of the five clusters with 36 enterprises. This cluster consists of medium sized enterprises: about 75% of the enterprises have 10 to 250 million euro turnover and 10 to 249 employees. Most respondents in cluster 5 belong to the engineering (44.4%) and chemical industry (13.9%) and are family-run (61.1%). Moreover, this cluster shows the second highest score for business experience (46 years average).

TABLE 1: DESCRIPTIVE INFORMATION

Cluster	Number of enterprises	Turnover (million euro)	Number of employees	Industry (main presence)	Business experience (years)	Experience abroad (years)	Business running
1	9	2-50	50-249	Engineering Furniture Textile	48	>10	Family-run
2	6	2-10	10-49	Engineering Electronic	31	>10 1-5	Family-run Managerial
3	14	0-50	10-49	Engineering Manufacturing Tertiary	20	1-5	Managerial
4	35	0-10	< 10 10-49	Engineering Textile Construction	29	>10 1-5	Family-run
5	36	10-250	10-249	Engineering Chemical	46	>10	Family-run

These five clusters have different approaches towards internationalization and intangible assets.

Cluster 1 – medium enterprises with traditional approach – consists of medium sized enterprises that reveal a consolidated and quite traditional approach towards internalization. In fact, the nine enterprises of this cluster go abroad by more than ten years and they do direct investments in internationalization. In order to better control their foreign target markets, they prefer to invest in direct sales force and agent networks. In addition, they also intend to internationalize in the next 12 months. In particular, 88.9% of respondents are going to invest in the future to reinforce their direct sales force abroad and to increase their presence abroad. Despite the traditional current and future entry modes, these data indicate that enterprises in cluster 1 have developed an international presence in a successful way and that they will continue to do so.

As for markets, this cluster operates in Western Europe (55.6%), in BRICS countries (22.2%) and Arab countries (22.2%): these firms are likely to focus on both domestic and potential countries.

Going abroad let them increase their profitability and to achieve sustainable competitive advantages. This happens by deploying their unique intangibles resources too. Flexibility, customer and suppliers relationship, brand value and pre and after-sales services play a key role to implement their international strategies.

Most enterprises in **cluster 2** are **small enterprises with global approach**. They have been internationalizing for more than 10 years and some others for more than 5 years. They face foreign markets with direct investments and, a small percentage, with agreements with third parties. As for direct investments, they prefer direct sales force, subsidiaries and affiliates, while, referring to the agreements with third parties, shareholdings prevail. Thanks to the entry modes selected, these enterprises operate all over the world. They have penetrated Western and Eastern Europe, BRICS countries, US market and Arab countries, reaching the highest presence of the sample in BRICS and U.S. countries.

In spite of the heterogeneous entry modes and diffused presence on foreign markets, these enterprises have no intention to invest in the coming 12 months. They declare difficulties to make their brand recognizable beyond national borders and fit in with the local norms, even if they show a sound experience in international business and pay particular attention to their customers and brand value. In fact, in order to pursue international opportunities, these firms see flexibility, pre and after sales assistance, brand, and the relationship with customers and suppliers, like key factors for competitiveness. In short, this cluster seems to be in trouble and less motivated to invest abroad in the future probably because they did not achieve any particular competitive advantages abroad till now.

The **youngest enterprises with managerial approach** are those of **cluster 3**. They show a short experience beyond national borders: they go abroad for less than 5 years. In addition, these enterprises are the only ones that do not adopt direct investments. In fact, it seems that this cluster adopts a step-by-step approach to developing a business strategy for international growth. According to this approach, firms tend to start with entry modes that do not need direct commitment and financial risk. As a matter of fact, they prefer indirect investments (57.1%) and agreements with third parties (42.9%), hoping in immediate and more attractive financial returns. In particular, cluster 3 choses importers, consortia of companies and joint ventures. Moreover, 50% of enterprises in cluster 3 intend to keep on investing in international markets in the next 12 months to strengthen their commercial capacity and consolidate their competitive position abroad. If these respondents will go abroad for sure, another 50% has not yet a clear propensity towards foreign markets: if we elaborate these answers together with the question about the difficulties of going abroad we find out that these respondents signal as the highest difficulties their size limit.

With reference to the markets, 64.3% of respondents internationalize in Western Europe, while 28.6% do so in BRICS countries. Like in cluster 1, these firms are likely to focus on both domestic and potential countries. In addition, these enterprises base their international competitive advantage on strong relationships with their customers and suppliers: direct and trust relationships between firms' management and customers (B2B or B2C) and suppliers enable them to internationalize their business activities. Differently from the other clusters, cluster 3 does not see flexibility as a core competence to be spent on foreign markets.

Cluster 4 consists of 35 **micro and small enterprises with traditional approach**. As for cluster 1, these enterprises present a quite traditional approach towards internationalization: most of them do direct investment and go abroad for more than 10 years (45.7%) or for more than 5 years (28.6%). In particular, they invest in direct sales force to oversee their international target markets. In spite of the consolidated and quite traditional approach, only the 48.6% of the respondents in cluster 4 are willing to invest in the future, not only with direct investments but also with agreements with third parties, especially with shareholdings. Thanks to internationalization process, these enterprises have obtained important benefits: increasing profits, acquisition of new foreign customers and a stronger in brand image. However, 40% of respondents are not convinced to invest on internationalization for the future because they have to deal with their limits in firm size and the adaptation to local legislation. In fact, in addition to Western Europe (88.6% of the enterprises), this cluster operates in BRICS countries (34.3%), which is considered a new emerging market with different custom barriers and laws. In these target markets, cluster 4 gains sustainable competitive advantage and fulfills the foreign requests by using relationships with customers and suppliers as a strategic issue. Managing this asset, firms can understand the different need of local customers and business buyers and identify new B2B or B2C clients through established relationships.

Finally, the enterprises in **cluster 5 are medium enterprises with proactive approach**. Their presence on the international markets is older than of the other clusters. In fact, all of the firms operate abroad for more than 10 years. Their strong international business experience explain their widespread presence on foreign markets and their use of entry modes. Indeed, they work all over the world. They have penetrated Western and Eastern Europe, BRICS countries, the U.S. market and Arab countries, reaching the highest percentage of presence in Arab countries. They prefer direct investments, but they also do indirect investments (16.7%) and agreements with third parties (11.1%). Among direct investments strategies direct sales force, network of agents, subsidiaries and own networks are the principal choice. Among indirect investments these enterprises prefer importers. They also prefer joint venture and shareholdings related to agreements with third parties. Furthermore, they have intention to invest in the future in order to increase their commercial capillarity. The success of these enterprises on foreign markets is due to relations and brand: they base their competitive advantage on a strong relationship with customers and suppliers and making their brand recognizable also abroad.

I. Discussion and managerial implications

The aim of the research was to investigate the internationalization strategies chosen by the enterprises operating in one of the most industrialized areas of Italy, the entry modes selected and the role played by intangible assets when operating abroad.

The sample of respondents demonstrate a strong international focus and a recent opening to new markets to the detriment of the European market by now considered to be domestic. Generally speaking, respondents have a long experience in internationalizing. They also intend to continue to do so over the next 12 months. In their strategies they prefer direct investments (point of sale, network of agents, subsidiaries and affiliates, own sales network on the spot). This denotes courage and intention to penetrate the foreign markets. The choice is also consistent with the proximity to B2B customers that respondents want to keep in terms of relations and quality of service, together with the need for market control. As for agreements with third parties, the respondents are oriented on equity investments and joint ventures. This is a sign of resourcefulness. Although the propensity towards foreign markets is strong, there are still difficulties to face new markets that are due to the small size of firms and the difficulty they have to understand different and sometimes complex contexts: hence the need of specific skills arises.

If this is true in general terms, the analysis let us go into detail with respect to the five different strategic approaches we already described.

To conclude, we can give some insights about the relation between intangibles and internationalization.

The relation between internationalization and intangibles is confirmed by the research. In all clusters intangibles are well present, although the level and intensity of their use can differ deeply between the respondents. Cluster 2 includes small enterprises, which use intangibles more diffusely, but at the same time they declare difficulties in internationalizing. This is also confirmed by their future propensity: they won't invest abroad in the next 12 months. Cluster 5 includes medium-size enterprises, which use intangibles less than cluster 2. Nonetheless they are quite satisfied with the experience abroad. This suggests that intangibles are a distinguishing factor for the enterprises of Monza and Brianza within their internationalization strategies.

The respondents that prove to face more difficulties abroad are the small ones. Clusters 2 and 4 give evidence of that. In cluster 2 the enterprises show a low propensity towards a future internationalization. This is mostly due to their difficulty in making their own brand recognizable abroad. On the other hand, cluster 4 – which includes micro enterprises too – recognize in their size the deepest difficulty when thinking about internationalization. In short, despite the respondents see internationalization as an opportunity to increase their profitability and the number of customers, the size limit remains a high barrier to entry foreign markets.

A group of respondents look more cautious. 57% of the respondents of cluster 3 have a managerial running, a 1 to 5 year-experience abroad, do not adopt direct investments strategies and do not recognize flexibility as a key factor for competitiveness. From these evidences we could deduce that where management and ownership of business are separate a cautious approach towards the various markets prevails, together with an interest in alternative entry

modes (for instance, indirect investments, agreements with third parties) unlike other types of investments that are most consolidated among the enterprises of Monza and Brianza province (direct investments).

Within the sample of respondents some enterprises show a more proactive and innovative approach towards foreign markets. It is the case of medium-size firms.

Nevertheless, the orientation towards internationalization is not homogeneous. Cluster 5 contains the most exploratory firms both in terms of market diversification and entry modes. Cluster 1 maintains, on the contrary, a more traditional attitude: it prefers direct investments and this is aligned with the majority of respondents.

Finally, a traditional consolidated approach in the territory of Monza and Brianza does persist. One reason can be that it guarantees good results both on domestic and on foreign markets. The enterprises that adopt this approach are characterized by a focus on direct investments, customer relationships, family-run business and a concentration in engineering industry.

The research brings evidence on the tight relation between internationalization and intangibles. This relation is confirmed in all the clusters we analyzed. At the same time intangibles do not solve all the problems referred to internationalization automatically. For sure, they are a driver for competitiveness but they are not the only one when planning internationalization strategies.

m. Limits of the research and future developments

The research presents some criticalities and limits, too. Intangibles were not measured and related to SMEs performance through indexes. Nor was investigated the causal relationship between intangibles and performance when internationalizing.

Future developments could drive the analysis towards a more detailed list of intangible assets, the use of a larger population of firms and the introduction of methods to assess intangible effectiveness into internationalization process strategies. In this direction some groups of indicators could be taken into account, like for instance profitability indicators, growth and market position indicators, indicators on subjective perception of the importance and the impact of intangibles on firm's performance (Lopez, 2006).

A qualitative stage of the research could then give some insights on the motivations of entrepreneurs to internationalize and their strategic approaches.

References

- [1] Aaker, D. A. (1989). Managing assets and skills: the key to a sustainable competitive advantage. *California Management Review*, 31, 2, 91-106.
- [2] Barney, J. (1991). Firm Resources and sustained competitive advantage. *Journal of Management*, 17, 1, 99-120.
- [3] Bones, C. (2007). Forward. In Drucker, P. F. (Ed.). *Innovation and entrepreneurship, practice and principles*. The Classic Drucker collection, Butterworth-Heinenmann, Amsterdam: Elsevier Ltd.
- [4] Cucculelli, M. (2003). Asset immateriali e comportamenti delle imprese nell'industria italiana. *Economia Marche*, 59-72.
- [5] Fong Reynoso, C., & Ocampo Figueroa L. E. (2010). Intangible resources as a determinant of accelerated internationalization. *Global Journal of Business Research*, 4, 4, 95-105.
- [6] Grant, R.M. (1991). The resource-based theory of competitive advantage: implication for strategy formulation. *California Management Review*, Spring 91, 33, 3, 114-135.
- [7] Hall, R. (1992). The strategic analysis of intangible resources. *Strategic Management Journal*, 13, 2, 135-144.
- [8] Jolliffe I.T. (2002), *Principal Component Analysis*. Series: Springer Series in Statistics, 2nd ed., NY: Springer.
- [9] Lönnqvist, A. (2002). Measurement of Intangible Assets – An Analysis of Key Concepts. *Frontiers of E-Business Research*.
- [10] Lopez, V. A. (2006). An alternative methodology for testing a resource-based view linking intangible resources and long-term performance. *Irish Journal of Management*, 27, 2, 49-66.
- [11] Maraschi, S., & Marchi, L. (2010). Le risorse immateriali nell'economia delle aziende. Atti del Convegno Nazionale dell'Accademia Italiana di Economia Aziendale 2009, Bologna, Italy: Ed. Il Mulino,
- [12] Prahalad, C. K., Hamel, G. (1990). The core competences of the corporation. *Harvard Business Review*, 68, 3, 79-91.
- [13] Teece, D. J., & Pisano, G., Schuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18, 7, 509-534.
- [14] Watson, R. (2010). Small and medium size enterprises and the knowledge economy: assessing the relevance of intangible asset valuation, reporting and management initiatives. *Journal of Financial Regulation and Compliance*, 18, 2, 131-143.
- [15] Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5, 2, 171-180.

Contact authors for the full list of references.

**Hybrid Strategy, Ambidexterity And Environment:
Toward An Integrated Typology.**

Alexandre Lapersonne, alexandre.lapersonne@postgrad.manchester.ac.uk

Nitin Sanghavi, nitin.sanghavi@mbs.ac.uk

Claudio De Mattos, Claudio.de-mattos@mbs.ac.uk

Manchester Business School, The University of Manchester, UK

Hybrid Strategy, Ambidexterity And Environment: Toward An Integrated Typology.

Abstract

Hybrid strategy, which emerged as a contingency option to Porter's (1980) generic strategies framework, defends that in a dynamic environment the simultaneous pursuit of "Low Cost" and "Differentiation" approaches is fundamental for the short-term performance and long-term survival of the firm. A vast amount of literature supports the benefits of adopting a mixed approach of strategy: several empirical studies have proved that a hybrid strategy establishes a firm's performance superiority over the pure strategy choice.

However, the hybrid literature has concentrated all its focus on the performance linkage and to the debate of countering the pure strategy approach, but very little attention has been paid to the challenges that the mixed strategy implementation present. In fact, despite the rich empirical literature, it has still not been elucidated how firms that adopt a hybrid strategy may successfully integrate the inherent contradiction of the "Low Cost" and "Differentiation" approaches, escaping from the "Stuck in The Middle" outcome. Furthermore, the literature reveals that several types of hybrid implementations, which should correspond to different strategy-structure-environment paradigms, exist. In order to study the characteristics of these different types of hybrid strategies, we suggest a typology composed of four types of hybrid implementation, defined by two antecedents of the firm and two antecedents of the environment.

Additionally, we align and contrast the hybrid and ambidextrous approaches, which share many similarities. Despite the fact that they have been confounded in empirical studies, we concluded that hybridity and ambidexterity are distinct and complementary concepts: while hybrid strategy defines the value proposition of the firm (a composition of "Low Cost" and "Differentiation"), ambidexterity focus on how to deliver this value with efficiency (Exploitation) and how to renew it effectively (Exploration).

Keywords: hybrid strategy; exploration; exploitation; ambidexterity; organizational architecture; turbulence; hypercompetition; uncertainty

Introduction

In this literature review, we decided to focus on the study of the adoption of hybrid strategy, also known as combination, mixed or dual strategy (Markides and Charitou, 2004; Pertusa-Ortega et al., 2009; Claves-Cortes et al., 2012). Since the success of Porter's generic strategy framework, a long debate has been settled between two points of view: the proponents of Porter's model, who defend that the pursuit of both "Low Cost" and "Differentiation" strategies by a firm would result in a poor performance situation called "Stuck-in-the-Middle", and the proponents of the adoption of hybrid strategy, which involves a combination of "Low Cost" and "Differentiation" elements, and who defend superior performance over the pure strategy adoption. At the centre of this debate, the concept of trade-offs has been playing a key role as it could be considered the central part of the coherence of a strategy (Magretta, 2011). Trade-offs are determined by choosing one strategic dimension to the detriment of the other. In the trade-offs paradigm, opposed strategic dimensions could not be pursued at the same time without creating some sort of inefficiency in the firm's value chain (Porter, 1980; Porter, 1996). This is because strategic positioning, such as differentiation and cost leadership, involves contradictory activities and resources allocation that are mutually exclusive. In fact, the choice of a differentiation strategy usually requires an emphasis in product innovation, customer customization, service differentiation and premium image to sustain a premium price. In contrast, a low cost strategy usually requires an emphasis on limited product and service scope, standardization, efficiency through economy of scale and learning curve to achieve a lower cost. Consequently, the firm that does not choose one type of strategy, or tries to implement the two simultaneously, will find itself in a poor performance situation, referenced as "Stuck-in-the-middle" (Porter, 1996). Numerous empirical studies defend this point of view (Aulakh et al., 2000; Dess and David, 1982; Thornhill and White, 2007). In fact, a firm that chooses a particular position in an industry, which should

be by “Low Cost” or “Differentiation” approaches, could sustain a competitive advantage based on two types of sources: the attractiveness of the industry associated to the barriers that could offer protection (Porter, 1981; Porter, 1996) and the set of unique resources that were developed internally that could offer protection through heterogeneity and imperfect mobility (Barney, 1991; Peteraf, 1993; Amit and Schoemaker, 1993). Consequently, the rules of trade-offs associated with the industry idiosyncrasy, which shape the strategic choices of this firm, remain valid until these industry characteristics remain unchanged (Spanos and Lioukas, 2001). In such a context of predictability and stability it is recommended and sensible that a firm concentrates its focus on one strategic dimension and specializes in a few competencies.

Conversely, in a turbulent environment marked by a high level of competition, instability of demand and fast transformation of the industry, the rules of trade-offs lose their importance, because at best they have a temporary validity (D’Aveni et Al. 2010). Consequently, a firm in such a context is forced to deploy a more complex and dynamic approach to strategy (Chakravarthy, 1997; Lapersonne, 2013). The modern era of globalization, high speed and instability has been at the origin of this need. In fact, many authors defend that business environments have been much more dynamic, unstable and competitive. These turbulent environments are commonly described by increased competitive intensity, disruptive changes in the industry structure, volatility of demand, and unpredictability of customer behaviour; alongside instability of economic, social and political factors. In these uncertain business environments, firms have been compelled to adapt to survive and to maintain their financial performance. In such a context, the adoption of traditional approaches to strategy, such as the positioning school, which assumes a relatively stable world, has been questioned by the emergence of the hybrid strategy adoption, which seems to be more suitable for adaptation. A voluminous body of theoretical and empirical studies defends the pursuit of a combination of the “Low Cost” and “Differentiation” strategy approach (Beal and Yasai-Ardekani, 2000; Philips et al., 1983; Spanos et al., 2004; Hill, 1988; Murray, 1988; Proff, 2000). Additionally, several studies demonstrate that firms that have adopted a hybrid approach in a dynamic environment have presented a superior or at least equivalent performance compared to pure strategy ways (Pertusa-Ortega et al., 2009).

However, the hybrid literature has concentrated all its focus on the performance linkage and to the debate of countering the pure strategy approach, but very little attention has been paid to the challenges that the mixed strategy implementation present. In fact, despite the rich empirical literature, it has still not been elucidated how firms that adopt a hybrid strategy may successfully integrate the inherent contradiction of the “Low Cost” and “Differentiation” approaches, escaping from the “Stuck in The Middle” outcome.

The Link Of Hybrid Strategy Adoption With The Environment

Contrasting with the pure strategy adoption that is more related to a stable environment, hybrid strategy has been associated with a turbulent, dynamic and volatile environment. Turbulent environments require flexible combinations of strategies (Kim & McIntosh, 1999). The competence of combining harmoniously “Low Cost” and “Differentiation” elements brings flexibility and a capacity for adaptation to an unpredictable and complex business context. Miller (1992) advises about the risk of adopting a too simple strategic repertoire. An excessively narrowed strategic focus could lead to failure by having a too simple offer, to ignore important consumers needs, to be easily imitated by rivals and to make difficult the adaptation to a business context changes. Consequently, the study of hybrid strategy has been to some degree related to specific dynamic environmental factors.

Hybrid strategy adoption in an emergent and mature market. Emergent economies have been marked by fast-growing markets and rapid changes but also by high uncertainty, institutional voids and hypercompetition, which create serious strategic challenges for firms (Hoskisson et al. 2000). In accordance with this, some studies on hybrid strategy concentrate their study in emergent economies. Gopalakrishna and Subramanian (2001) explain how the business context in India was suddenly transformed from a protected-stable to open-hypercompetitive: hybrid firms in such an environment demonstrated superior performance over the ones that had adopted a pure approach. They explain these results by the fact that firms that have adopted a hybrid approach are more flexible and adaptable to the fast-changing, complex and hypercompetitive new environment. Acquaah and Yasai-Ardekani (2008) find similar results in Ghana, a Sub-Saharan African economy that has been transforming its economy from state-controlled to

free market capitalism systems: firms have been suddenly thrown into a fast-growing-hypercompetitive context, and the hybrid adoption demonstrated it to be a viable alternative to superior performance and survival. Li and Li (2008), explain how the fast-growing Chinese economy has become one of the most dynamic and competitive business environments, and concluded that hybrid strategy is associated with superior performance. And finally, Kim et al., (2004) found that hybrid strategy has superior performance over the pure strategy adoption in a sample of Korean online shopping malls. Studies of hybrid strategy have also been done in developed countries, particularly in mature or recessive economies such as those in Western Europe, who also present turbulent environments such as unpredictability and volatility of demand and supply (Proff, 2000). Spanos et al., (2004), defend empirically that hybrid strategy adoption is maybe the only feasible and attractive strategic alternative for Greek firms to survive in a recessive economy associated with a high competitive environment and with very limited capacity for investment. And, Pertusa-Ortega et al., (2009), demonstrated that Spanish firms that pursue a hybrid approach are associated with higher levels of performance.

Hybrid strategy adoption and competitive intensity. Studies on hybrid strategy have also considered market-environmental factors, mainly in relation to competitive intensity. In fact, competitive intensity is considered one of the most important factors contributing to environmental hostility (Dess and Beard, 1984; Zahra and Covin, 1995). The literature suggests that firms need to engage in a greater level of entrepreneurial activities, such as exploration, strategic renewal and innovation as environmental hostility intensifies (Zahra, 1993; Zahra and Covin, 1995). In accordance with this, some studies have tested the relationship between competitive intensity and hybrid strategy adoption and its effect on a firm's performance. Acquaah and Yasai-Ardekani (2008) employed market competitive intensity as a control variable to prove that under high competitive intensity firms that adopt the hybrid strategy are superior in performance to those firms that adopt the pure or "Stuck-in-the-Middle" strategic approach. Auh and Menguc (2005) tested the effect of competitive intensity on a firm's performance by an ambidexterity approach in the Australian market: they demonstrated that as the level of competition increases, Defenders and Prospectors tend to choose a more balanced approach between exploration and exploitation, which matches the hybrid assumption of effectiveness (differentiation-exploration) and efficiency (Low cost-exploitation) approaches.

In conclusion, most empirical studies on hybrid strategy adoption and its relationship with environmental factors have been focused on the study of competitive intensity. Empirical studies in emergent markets and mature-declining economies are broader and less precise as they are contextual and not linked to specific environmental factors. Consequently, the premise of the relationship of hybrid strategy adoption with a turbulent environment is partially explored. One of the environmental factors not tested by empirical studies is the volatility of demand and changes of preferences of consumers. In fact as Proff (2000) explained, changes in customer price sensitivity should require a hybrid approach. Hill (1988) and Murray (1988) demonstrated in their theoretical studies that customer price sensitivity and the importance given to other attributes are directly related to the adoption of a hybrid approach. Evidence from the literature demonstrates that two environmental situations could define very different types of hybrid adoption. One is related to the adoption of hybrid strategy in a fast growing and changing market accompanied by an increase of competitive intensity (Gopalakrishna and Subramanian, 2001; Acquaah and Yasai-Ardekani, 2008; Li and Li, 2008). In this situation the firm that reached a strong position in one of the two strategies may lead by improving the position of the other (Hill, 1988; Pertusa-Ortega et al., 2009). Hill (1988) exemplifies this with a firm positioned originally as differentiation, which attains an important market share and enjoys the benefits of economy of scale, scope and learning curve. This is possible in a fast-growing market where the initial simple "Differentiation" focus is used as a lever for the "Low Cost" approach. Additionally, for this firm to make the efforts, investments, and risks in implementing an additional "Low Cost" approach to its "Differentiation" strategy, pressures from the environment should come from an increase of competitive intensity.

The second situation is related to the adoption of hybrid strategy in a mature-declining market. Also highly competitive, this market could become turbulent because of uncertainty provoked by volatility of demand or supply. This is much more a survival aspect of hybridity than the growing perspective. In this situation, the market does not allow the benefit of efficiency associated with an increase in volume, because gain of market share is limited or not possible. Uncertainty of demand and supply could brutally affect the offer that will demand a change in the strategic approach. Then a hybrid approach could bring the necessary flexibility for adaptation. In his case study of the German automotive industry, Proff (2000) identified six turbulent environmental factors that have been influencing the

automotive industry and lead to the adoption of a hybrid approach. On the demand side: a stagnating demand for new cars; an increasing practice of providing the full range of equipment as standard rather than as optional, reducing profit; and the increasing demand for niche product, increasing complexity and cost. On the supply side: an increase of differentiation of product lines with more variety of models; an overcapacity and a decentralization of production have brought an increase of complexity.

Unfortunately, despite the fact that many scholars have cited the use of hybrid strategy as a survival and adaptive perspective, we have not found any empirical studies on the subject to date. That will be of particular interest to study the performance of firms that have used a hybrid strategy to adapt to turbulent environments characterized by uncertainty of demand and volatility of supply in mature-declining markets. Furthermore, based on the different stages of industry life cycle described by Wright et al., (1998), we propose that further research should study the characteristics of Hybrid implementation in two distinct market scenarios: The growing and highly competitive market scenario, also referred to as Competitive Turbulence (Wright et al., 1998) and the mature-declining market with association of unpredictability of demand and/or volatility of supply, which we will refer to as Demand-Supply Turbulence.

Identifying Distinct Pathways To Hybrid Strategy

Additionally to the different environmental conditions that could shape the type of hybrid adoption, the original characteristics of the firm could play an important role when the firm decided to adopt a hybrid approach. In fact, the use of hybrid strategy involves strategic challenges, complex processes and cultural changes and consequently elevated risks to be managed. One of the main challenges is to deal with the contradictory nature of a duo-focus, to avoid the nullity effect of simultaneously emphasizing opposite goals and to transform them into a complementary effect. It is no easy task and it should not be a natural choice. Ultimately, attaining a competitive advantage through a pure strategy approach has an easier and less risky implementation.

Thus it is highly probable that prior to the hybrid adoption the firm had already attained a competitive advantage either by a “Low Cost” or “Differentiation” approach. As we demonstrated, an increase of uncertainty and hostility in the environment could have forced the firm to change its original strategic positioning and to adopt a hybrid approach. It is also not impossible, but less probable that a firm “Stuck in the Middle” migrated directly to a successfully hybrid implementation. This is because this firm that has neither developed a distinctive “Low Cost” or “Differentiation” competency, will have an enormous challenge in developing simultaneously and appropriately the two approaches. On the other hand, the firm that already has a well-developed and established competency will have to develop the new competency without destroying the value generated by the original one. Based on evidence in the literature, two main paths for hybridity were identified. The first one is related to the adoption of a hybrid approach by a firm that is positioned as differentiation. A firm that has been successful in adopting a pure differentiation strategy gains market share, and through the logic of the economy of scale, economy of scope and learning curve, also attains the benefits of a cost advantage (Hill, 1988; Miller, 1992; Miller and Friesen, 1986). The second situation is when a firm originally positioned as “Low Cost” decided to complement its strategy through “Differentiation”, because it’s able to invest its profits in marketing, service or product attributes (Hill, 1988; Pertusa-Ortega et al., 2009).

The adoption of hybrid approach by a firm originally positioned as pure “Differentiation”

As explained by Porter (1980), firms that choose a differentiation approach create competitive advantage by offering a product or service with unique attributes. This unique offer associated with a customer that is more willing to pay a premium price, allows the firm to sustain superior revenue. The uniqueness of the offer creates two barriers for a rival to enter the market. Firstly, it reduces the bargaining power of the customer, because there are no other offers that allow comparison. Consequently, customers tend to be less sensitive to price and more loyal to the firm’s offer. Second, as the “Resource Based View” proponents have elucidated it, the uniqueness attributes of the offer are difficult to be imitated by a rival due to its resources and capabilities complexity. Protected by these barriers, the firm that adopts a “Differentiation” strategy easily sustains superior margin, even if it has to manage a superior cost. But

change in the environment could reduce or nullify the protection provided by these barriers. Increases of competitive intensity or change in consumer preferences are the main reason for a firm originally positioned as “Differentiation” to adopt a hybrid approach. It is therefore necessary to distinguish two different types of adaptation. One is related to an increase of competitive intensity, characterising a turbulent competitive environment, where the firm reinforces its actual “Differentiation” positioning with a “Low Cost” approach; we named it the Reinforcement Adaptive Perspective. The second is related to a change in the customer taste, characterising a turbulent demand-supply environment, where the firm modify its actual “Differentiation” positioning with a “Low Cost” approach; we named it the Survival Adaptive Perspective.

The Reinforcement Adaptive Perspective. Hill (1988) defends that in certain conditions a firm positioned as differentiation could experience a growth of market share and acquire the benefit of the cost advantage. This is more likely to happen under the following circumstances: when consumers’ commitment to the products of rival firms is low, when market growth is high, when market structure is fragmented at the demand side, when the production process is new and complex and when economies of scale and scope exists. Using the advantage of its differentiated brand image associated with a consumer not so loyal to other rivals offers, this firm could adjust down its premium price to reach the larger part of the market consumers. Then supported by a growing market, the increased volume could bring economies of scale that reduce the unitary cost and surpass the additional cost caused by differentiation. A fragmented market could allow the firm to attend different types of consumption need, and create a portfolio of differentiation offers for each consumer segment, acquiring the benefit of economies of scope. Also, complex and new productive processes will complement the cost advantage bringing the benefit of the learning curve effect. A typical example of this type of situation is that of Apple Inc. which originated from a niche premium computer producer and turned into one of the largest electronic device producers for mass consumption. But these circumstances are not sufficient for the differentiated firm to achieve the cost advantage. In the same way that this firm has the core competence to differentiate its product and explore new consumption segments, this firm will have to develop new managerial capabilities of exploitation to take advantage of the cost benefits. Economy of scale, scope and the learning curve will demand a certain focus on cost control, optimization of the production process as well as efficiency. We named this type of situation the Reinforcement Adaptive Perspective because it is more likely that this firm will take the effort and risk to increase the complexity of its strategy adding a “Low Cost” approach in a growing market as a mechanism to protect its original competitive advantage based on differentiation against an increasing competitive intensity coming from imitators. In fact, an increase of competition is characterised by a proliferation of similar offers on the market. Despite the resources and capabilities complexity of the firm’s differentiated offer, which makes it difficult to imitate, access by rivals to knowledge, technology, talents and best practice is not impossible. Knowledge, talent, and new technologies can be easily acquired in the globalized and integrated environments of today. In this case, rivals would reach a comparable offer, not an exact one, but sufficiently equivalent in terms of attributes to be comparable. With a multiplicity of choice, the less loyal customers could tend to give more importance to a less expensive offer that has similar value attributes than the offer by the differentiation firm. The increase of a rival’s offers also strengthens the customer’s bargaining power, pressuring down the average price of the industry, which should provoke an erosion of industry average price and challenge the stability of the firm positioned as differentiation. Wright et al., (1998) exemplify this type of situation with the case of Federal Express that occurred in 1992. After having been a leader in its segment with a “Differentiation” strategy approach, the company experienced a loss of consumers who migrated to imitators offering a similar service for a lower price. Federal Express reinforced its position by increasing its differentiation through the offer of new types of service such as “Just In Time” transport and online order tracking, while it was simultaneously lowering its cost through technological-efficiency initiatives to maintain a competitive price.

The Survival Adaptive Perspective. In a mature market where growth is low, brand loyalty is well established and productive processes are already optimized, the achievement of “Low Cost” advantage through “Differentiation” is more difficult because gains of efficiency based on economy of scale, scope and learning curve has already been used (Hill, 1988). Mature markets are also characterised by competitive intensity because normally the overall offer is greater than the demand that is stabilizing or declining. In this delicate market equilibrium, turbulences coming from the demand or supply side could present a huge challenge of adaptation for a firm positioned as differentiation. An uncertainty on the demand side is when the consumer becomes more sensitive to price due to a disruptive change in

the economic environment. An increase of inflation, the interest rate and unemployment rate, could affect consumers' purchasing behaviour that passes on to give more importance to price than other attributes. In such a situation, the firm that has based its premium price on brand image, tailor made service offer, unique design or special added product's features, could be surprised by a loss of its less loyal consumers that suddenly altered their purchase behaviour. In fact, a more pessimist consumer tends to be less willing to spend their income with more sophisticated offers, concentrating their expenses on basic consumption needs. Less differentiated rival's offers could match the needs of these customers that are looking for similar or less value for a more affordable price. That was the case during the crisis of 2008, when Wal-mart captured important market share from other retail chains such as Target and J. C. Penney by having a more affordable offer (1). More recently, El Corte Inglés, a premium food retail and department store in Spain, in an attempt to adapt to a recessive market, reduced its prices by 25% while it was focusing on efficiency, inventory working capital and cost reductions (2). This adaptation was triggered by an important change in the consumer behaviour, which with the economic crisis turned to be more sensitive to price and favoured "Low Cost" rival.

The firm positioned as "Differentiation" will suffer a loss of market share due to the less loyal and more price sensitive customers that migrate to competitor offers. Then the firm has two choices: to stay with the remaining part of the market share or to change the approach of its "Differentiation" strategy. If the firm's option is to remain with a less important part of the market share, the "Differentiation" approach should be strengthened, reinforcing the uniqueness attributes against the rival's offers, which will characterize a migration from a generic to a focus strategic approach. Unfortunately this option is not always available: the migration to a smaller part of the market could not be compensated by an increase of the premium price compared to the increase of unitary cost provoked by the diseconomy of scale. As Hill (1988) noted, there exist thresholds of volume production in most industries, where producing under certain volume conditions will not be possible due to high unitary cost. Otherwise, if the firm wants to maintain an important market share, it is logical that this firm will alter its "Differentiation" approach. A new complementary focus on "Low Cost" should be used to make the firm more competitive in the eyes of more price sensitive customers. Different to the Reinforcement Adaptive Perspective, in this situation the firm is intending to review its value proposition, eliminating the attributes that are no longer valuable for the customer, and consequently reducing the overall cost. Additionally to the review of the value proposition, initiatives of cost and expenses reduction not related to scale logic should be undertaken to bring about the necessary competitiveness.

The Adoption Of Hybrid Approach By A Firm Originally Positioned As Pure "Low Cost"

As explained by Porter (1980) the firm that chose a "Low Cost" position, is cost minimization oriented, exploits a value logic based on economies of scale, and has a strong focus on cost control. Two barriers protect its advantage. First, by attaining the lowest cost in the industry sustained by its capability of exploiting efficiency and the benefit of economy of scale, scope and learning effect. Second, by its customers who are highly sensitive to price and do not give importance to other attributes. Theoretically, firms that adopt this position can always beat the competition based on price as it is sustained by the lowest cost. However, as Hill (1988) demonstrated, there exists a threshold level of market share, where above it, gains of economies of scale, scope or learning curve are minimal. Considering that this threshold in most industries is relatively low, there is no unique "Low Cost" leadership position, and many firms could easily attain an equivalent cost advantage. In this situation, the only way for a firm originally positioned as "Low Cost" to remain competitive is to complement its strategy through differentiation. We will explore this type of hybridity through the Reinforcement Adaptive Perspective and the Survival Adaptive Perspective.

The Reinforcement Adaptive Perspective. In a fast-growing market, a firm could choose the "Low Cost" strategy to attain an important share of the market and gain the benefit of scale, scope and learning curve before their rivals. Once established with an important share of the market, the firm will benefit from financial resources to invest in differentiation in order to reinforce its leadership position and create protection against competitors (Hill 1988, Pertusa-Ortega et al., 2009). This is possible if in this market, consumers are initially more sensitive to price and as far as the demand side develops; they also give importance to other attributes. Additionally, the fast-growing market should also have a minimum degree of fragmentation and the product and service sold by the firm should present a minimum scope for differentiation. Otherwise, in a non-fragmented market, dominated by highly commoditized

products or characterized by customers that give importance only to price, the addition of a differentiation strategy could increase the marginal cost without an equivalent increase of marginal revenue. Wal-mart is an interesting case of a retail store that started with a pure “Low Cost” strategy, with a strong focus on cost control and efficiency, gained an important market share through developing an efficiency competence in supply chain and strengthened its leadership position through differentiation initiatives such as offering a broad assortment and adding new services (Dess et al., 2012; Baroto et al., 2012).

The Survival Adaptive Perspective. The position of a “Low Cost” firm could be threatened if consumers start to give importance to attributes other than price and if competitors offer products with added values for an equivalent price. If this firm is in a mature market with few opportunities of growth to achieve new levels of economy of scale, then this firm could suffer a loss of market share by the migration of parts of its customer to the rival’s offers. Competitors could sustain a competitive price, because having captured new consumers through their attractive offers; they achieve benefit of scale and scope. The central problem for this firm is that its offer remained too simple for the consumers’ taste. Consumer behaviour could have changed for two principal reasons. A change in economic environment, such as an increase of middle class income could move the consumption to more sophisticated needs. Then the consumers will give importance to competitors that have a more differentiated offer. The other reason for a change in consumer taste is related to the success of marketing and communication strategy of rivals, who could change the value perception of consumers by provoking and unveiling new needs. Gehani (2013) describes how after the 2008 economic slowdown, how a large composite fabric and accessories enterprise transformed its original “Low Cost” positioning to a “Differentiation” positioning in order to escape from an increase of competition coming from emergent countries.

The firm positioned as “Low Cost” could decide to add new value-added features to its offer in an effort to retain market share. In this case, the primary strategy should be complemented by a “Differentiation” approach, retaining old consumers or capturing new ones through the new approach. Adding extra value features to an existing offer will bring a significant challenge as to the development of explorative capabilities and ability of the firm to differentiate its products. Obviously this is possible, if a certain degree of fragmentation in the market exists, and if the offer has sufficient scope for differentiation (Hill, 1988; Murray, 1988). One of the challenges of this firm in implementing the differentiation complementary approach will be to choose a dimension of differentiation that creates uniqueness in relation to rivals. As this firm could not further extract any benefit from efficiency and economy of scale, there only remains the opportunity for creating competitive advantage on the ability of the firm to differentiate its offer from competitors.

Hybrid Strategy And Ambidexterity

Hybrid strategy has been identified as a strategic approach that emphasises both low cost and differentiation strategy (Pertusa-Ortega, 2009; Claves-Cortes, 2012). The pursuit of such a mixed strategy involves the management of contradictory and mutually exclusive choice. Similarly, strategic ambidexterity has been defined as concurrently pursuing, managing and executing an exploitative and explorative focus, which are considered paradoxical strategies (Han, 2008). Exploration is determined by activities involving search, experimentation, flexibility, discovery and innovation, while exploitation is defined by activities involving refinement, execution, selection, implementation and efficiency (March, 1991). Both hybrid and ambidexterity have as their main purpose to manage tensional objectives and trade-offs (Han 2007) and to lead with performance dilemmas (Chakravarthy and Lorange 2008). Ultimately, strategic ambidexterity has been associated with the development of a particular dynamic capability, which has been defined as the organizational competence to transform tension within paradoxical strategies into short-term complementary effects for long-term sustainability (Han, 2007). Considering the perspective of managing dual opposite and antagonist strategic focus, we can consider that hybrid strategy and strategic ambidexterity are two approaches with a common purpose. This purpose is associated with the development of an adaptive capability associated with a complex environment.

Despite this, the two perspectives have different origins. On the one hand, hybrid strategy is rooted in the positioning school, in particular to Porter’s generic model and to some extent that of the Miles and Snow framework

(Miles et al., 1978). On the other hand, strategic ambidexterity is rooted in the organizational learning school (Duncan, 1976; March, 1991), organizational ambidexterity (Simsek, 2009; Gibson and Birkinshaw, 2004), and the idea of capabilities that found its root in the Resource Based View (Han, 2007; Han and Nikhil 2008). More recently, strategic ambidexterity has been associated with dynamic capabilities as an extension of the RBV approach (Gibson and Birkinshaw 2004; Han and Nikhil, 2008; O'Reilly and Tushman, 2008). As has already been elucidated, positioning and resource schools constitute the two sides of the same coin and could be considered as complementary (Wernerfelt, 1984; Spanos and Lioukas, 2001). A firm should define its strategy to fit the environment and to develop internal competencies that enable it to achieve success. Through this point of view, hybrid and ambidextrous approaches could be envisaged complementary as well. In fact, a firm positioned as "Low Cost", emphasizes its activities on efficiency, economy of scale, cost optimization and reduction. As this firm tends to attain the lowest cost possible, it normally offers a reduced and simplified scope of product and service, in order to achieve maximum efficiency (Porter, 1980). With a less variable scope, the firm could concentrate on exploitative learning activities such as refinement, operation optimization and gain of efficiency through learning curve to sustain its "Low Cost" positioning.

Conversely, a firm positioned as "Differentiation", emphasizes its activities on the creation of unique offers that allow sustaining premium price. Such an approach concerns the discovery and development of new and unique products and services. Then, it is expected that a firm positioned as differentiation has a well-developed explorative learning activities characterized by the search for new opportunities, scope variation, play, risk taking and experimentation to sustain its competitive advantage based on differentiation. Consequently, a firm that adopted a hybrid strategy which involves the combination of "Low Cost" and "Differentiation" elements in its positioning should have developed an ambidextrous approach in its capabilities development and learning activities.

However, it is important to note that this complementarity came about mainly from different angles. In fact the two theories are concerned with strategic adaptation of environmental change, but while the hybrid approach is concerned with the external aspects of firm's strategy, the ambidexterity theory is more concerned with the internal ones. Having its root in the positioning school, the hybrid approach has the heritage of the external firm perspective choosing a value configuration that is represented by a particular market competitive position. More complex and dynamic in nature than the pure approach, the Hybrid approach combines "Low Cost" and "Differentiation" elements, that allows adaptation to the environment change by capacity of altering its value proposition and positioning or managing multiple value propositions and market positions. The ambidexterity perspective rooted in the Organizational Learning School and dynamic capabilities has the same characteristics of complexity and dynamism as it combines exploitative and explorative activities, but is more concerned with the optimization or change of routines, characterising an internal focus of the firm.

Consequently the two approaches work on different dimensions of the adaptive perspective. The hybrid approach represents a capacity of managing a dynamic positioning and value proposition in the market, by the dynamic combination of "Low Cost" and "Differentiation"; while ambidexterity represents the capacity of optimizing this value proposition by "Exploitation" or create new ones by "Exploration". In fact, an activity could create value through a "Low Cost" or a "Differentiation" focus. But independently of its type of value contribution as a routine it could be optimized through "Exploitation" to increase efficiency or could be changed through "Exploration" to enable innovation and flexibility. Then "Exploitation" is not exclusively for a "Low Cost" focus activity, nor is "Exploration" exclusively for a "Differentiation" focus activity. "Exploitation" could increase efficiency both for a "Low Cost" and "Differentiation" activity. Analogously, "Exploration" will increase effectiveness (flexibility) either for a "Low Cost" or a "Differentiation" activity. The conclusion is that "Low Cost – Differentiation" and "Exploitation – Exploration" are two different and independent dimensions that complement each other and should not be confused.

However, this distinction between hybrid and ambidextrous perspective is not explicit and clear in empirical studies. Hybrid strategy has been investigated by testing activities that characterize "Low Cost" and "Differentiation" emphasis. Strategic ambidexterity has been studied by testing activities that characterize explorative and exploitative activities. In Table 1, we classified the dependent variables that have been tested from the main studies of both approaches. As we can see, despite the different nature of the two perspectives, most of them test the same set of variables. In the "Low Cost" and "Exploitation" approaches, variables such as: cost and expenses optimization and reduction; manufacturing and distribution processes improvement; product and service efficiency, quality optimization and standardization; gain of economies of scale and optimal capacity utilization, are commonly tested.

In the “Differentiation” and “Exploration” approaches, variables such as: introduction of new products and services; entry into new markets; exploration of new opportunities; gain of market share; innovation of marketing techniques; intensive advertising and promotional actions and brand identification building, are also commonly tested. Thus, despite the fact that the hybrid and ambidexterity approaches are different perspectives, their empirical studies use the same set of variables, resulting in ambiguous results. Nevertheless, it is important to note that some studies on hybrid strategy have tested competitive positioning variables, which is not tested by the strategic ambidexterity approach. Variables such as: “Low Cost - Low Price”, rather than competitors; products, services, brands differentiation and sustainability of higher price are considered only by some hybrid studies, demonstrating that the two different approaches have been separated, despite this not being explicitly cited.

In conclusion, empirical works failed to distinguish the external strategic approach from the internal ones. Indeed, the fact that a firm places a high emphasis on “Low Cost” and “Differentiation”, does not necessarily imply that it has a high emphasis on “Exploitation” and “Exploration” as well. For example, we could have the situation of a firm that has attained a high emphasis on “Low Cost” and “Differentiation” simultaneously but have internally only a high emphasis on “Exploitation”. This firm has probably attained a leadership position and it is offering one of the best combinations of unique value with low cost. Once having attained an important market share this firm experienced the benefit of economy of scale and learning curve that brought the benefit of the “Low Cost” advantage. Explorative activities should be intense and important at the beginning for this firm, but now its exploitative activities maintain the performance of the firm. If not threatened by disruptive change, this firm does not need to maintain a high emphasis in explorative activities such as exploration of new opportunities or innovation of new product or services.

Considering this, the confusion made by empirical works in testing the same variables for hybrid and ambidexterity approaches generate ambiguous results and do not elucidate the very important distinction and complementarity that exist between the dynamic adaptation of the firm value proposition and positioning (hybrid approach) from the optimization and renewing of this value proposition (ambidexterity approach). Finally, despite the hybrid and ambidexterity approaches having a common goal of adaptability, that they are complementary by nature and have similar empirical research methods, they should be considered as two different approaches of strategy and treated independently. A very interesting avenue for future researches could be the study of how the two pairs of dimensions “Low cost– Differentiation” and “Exploration-exploitation” are combined.

TABLE 1: COMPARISON OF COMPETITIVE STRATEGY VARIABLES TEST BETWEEN HYBRID STRATEGY AND AMBIDEXTERITY APPROACH

Strategic Dimension	Types of variables tested	Hybrid strategy approach	Strategic ambidexterity approach
Operational efficiency, exploitative activities	Cost optimization, Cost reduction, Optimize and Reduce material consumption and expenses.	Wright et al. 1991; Kim 2004; Thornill 2007; Acquaah 2008; Gopalakrishna 2008; Pertusa-Ortega 2009; Santos 2011;	He & Wong 2004
	Improve Manufacturing and distribution processes. Products, services efficiency and quality optimization and standardization.	Wright et al. 1991; Kim 2004; Thornill 2007; Li & Li 2008; Acquaah 2008; Gopalakrishna 2008; Pertusa-Ortega 2009; Santos 2011	Han 2008; Auh 2005; He & Wong 2004; Menguc & Auh 2008
	Gain of economies of scale, Optimal capacity utilization	Wright et al. 1991; Li & Li 2008; Santos 2011	Menguc & Auh 2008; Auh 2005
Cost advantage	Lower Cost, Lower price than competitors	Wright et al. 1991; Kim 2004; Li & Li 2008; Acquaah 2008; Gopalakrishna 2008; Pertusa-Ortega 2009;	

Product and service effectiveness, explorative activities	Innovation, introduction of new products and services; Extend product and service range.	Kim 2004; Thornill 2007; Wright et al. 1991; Acquaah 2008; Pertusa-Ortega 2009; Santos 2011	He & Wong 2004; Menguc & Auh 2008; Auh 2005
	Enter new markets; explore new opportunities; Gain of Market share.	Pertusa-Ortega 2009; Gopalakrishna 2008	He & Wong 2004; Han 2008
	Innovation in Marketing techniques; Intensive advertising and promotion actions. Brand identification building.	Wright et al. 1991; Kim 2004; Acquaah 2008; Gopalakrishna 2008 Pertusa-Ortega 2009; Santos 2011	Menguc & Auh 2008; Auh 2005
Differentiation advantage	Product, service, brand and marketing differentiation. Sustainability of higher price.	Li & Li 2008 ; Wright et al. 1991; Acquaah 2008; Gopalakrishna 2008; Santos 2011	

A Suggested Typology For Further Studies Of Hybrid Strategy

Despite the fact that the literature strongly defends the importance of the hybrid adoption with a firm's performance, very little attention has been given to the study of the characteristics of the hybrid perspective. Through a literature review, we demonstrated that there exists convincing evidence of very distinct hybrid applications and implementations. Such differences are sustained by two approaches: the type of environment where the hybrid is adopted and the original strategy and cultural characteristics of the firm. Environmental antecedents divide into two polar situations: one characterized by competitive intensity, normally associated with a growing market, this situation is normally associated as hypercompetition or competitive turbulence. The other is characterized by volatility and uncertainty of the demand and supply side, normally associated with a mature or declining market: we named this situation demand-supply turbulence. The adoption of a hybrid strategy for these very different contexts requires different approaches to implementation. In a competitive turbulent environment, where the market is growing and competition intensifies the firm should adopt a reinforcement strategy approach, where the "Low Cost" or "Differentiation" complementation is integrated to reinforce the original positioning: we named this situation the Reinforcement Adaptive Perspective. In a demand-supply turbulent environment, where the market is stagnated and the demand or/and supply side present high volatility the firm should adopt a change strategy approach, where the "Low Cost" or "Differentiation" complementation is integrated to change the original positioning: we named this situation the Survival Adaptive Perspective.

We also identified two different firm's origins for the adoption of a hybrid strategy. One is related to a firm that is originally positioned as "Differentiation" that decides to adopt a hybrid strategy, adding a "Low Cost" approach. We named this type: "Differentiation Originated Hybridity". The other is related with a firm that is originally positioned as "Low Cost" that decides to adopt a hybrid strategy adding a "Differentiation" approach: we named this type: "Cost Originated Hybridity". Based on these two dimensions, environment antecedents and firm antecedents, we suggest the following typology to support further studies of different types of hybrid implementation (Fig. 1).

Antecedents of Environment	Demand-Supply Turbulence	A Low Cost Strategy's firm changes its original positioning adopting a Differentiation approach as an adaptive mechanism in response to an increase of uncertainty	A Differentiation Strategy's firm changes its original positioning adopting a Low Cost approach as an adaptive mechanism in response to an increase of uncertainty
	Competitive Turbulence	A Low Cost Strategy's firm reinforces its original positioning adopting a differentiation approach as a protective mechanism against increase of competition	A Differentiation Strategy's firm reinforces its original positioning adopting a Low Cost approach as a protective mechanism against increase of competition
		Cost Originated Hybridity	Differentiation Originated Hybridity
Antecedents of Firm			

FIGURE 1: A PROPOSED TYPOLOGY FOR THE STUDY OF HYBRID STRATEGY

Conclusion

The aim of this article is to make a literature review centred on the subject of hybrid strategy and to understand its relationship with the concepts of ambidexterity and environments. First, it was identified that the hybrid strategy and ambidexterity approaches share a similar purpose of adaptation but are distinct in nature: the hybrid approach is more concerned with an external view of the firm as inherited by the positioning school, while the ambidexterity approach, which is rooted in a “Resource Based View” perspective is concerned with an internal view of the firm. Secondly, a hybrid strategy involves the composition of “Low Cost-Differentiation” whereas ambidexterity involves the dual focus on “Exploitation-Exploration”, two distinct and complementary dimensions: while hybridity defines the strategic value (a composition of “Low Cost” and “Differentiation”) of the firm, ambidexterity optimizes (Exploitation) or renews (exploration) this value. Despite this, most of the empirical studies on hybrid strategy and ambidexterity do not make this distinction and have the same variables in their tests on a firm’s performance, leading to ambiguous results. We therefore suggest that future research should make the distinction between the use of hybrid strategic positioning and its ambidexterity implementation.

We also identified different situations that could characterize different types of hybrid implementation. From the environmental linkage, we identified two different types of environment that could characterize diverse approaches of hybrid strategy implementation. One is related to the use of hybrid strategy as a mechanism to reinforce the competitive advantage of the firm in a turbulent competitive environment; we named this situation the Reinforcement Adaptive Perspective. The second is related to the use of hybrid strategy as a mechanism to change the strategic approach of the firm in a demand-supply turbulent environment; we named this situation the Survival Adaptive Perspective. Additionally, we identified two different firm’s origins that could characterize different types of hybrid implementation. One is related to a firm originally positioned as “Differentiation” that adopts a “Low Cost” approach, and the other is related to a firm originally positioned as “Low Cost” that adopt a “Differentiation” approach. Based on these distinct situations identified, but not so explicit in the literature, we proposed a hybrid strategy typology that should support further studies, and permits a refinement and better understanding of the benefit of the hybrid implementation, particularly to elucidate how a firm that has implemented the hybrid approach has combined and solved the paradox of its nature.

Finally, we conclude that further research on the study of hybrid strategy should be more precise and consider the type of environment and the firm's origins in their study on performance and organizational structure. We also suggest that the variables of the hybrid "Low Cost-Differentiation" and ambidexterity "exploitation-exploration" approaches should be studied in a distinct and complementary way.

References

- [1] Acquaah, M. & Yasai-Ardekani, M. (2008). Does the implementation of a combination competitive strategy yield incremental performance benefits? A new perspective from a transition economy in Sub-Saharan Africa. *Journal of Business Research*, 61, 346-354.
- [2] Amit, R. & Schoemaker, P. J. H. (1993). Strategic Assets and Organizational Rent. *Strategic Management Journal*, 14, 33-46.
- [3] Auh, S. & Menguc, B. (2005). Balancing exploration and exploitation: The moderating role of competitive intensity. *Journal of Business Research*, 58, 1652-1661.
- [4] Aulakh, P. S., Kotabe, M. & Teegen, H. (2000). Export strategies and performance of firms from emerging economies: evidence from Brazil, Chile, and Mexico. *Academy of Management Journal*, 43, 342-361.
- [5] Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17, 99-120.
- [6] Baroto, M. B., Bin Abdullah, M. M., & Wan, H. L. (2012). Hybrid Strategy: A New Strategy for Competitive Advantage. *International Journal of Business and Management*, 7, 20, 120-133.
- [7] Beal, R. M. & Yasai-Ardekani, M. (2000). Performance Implications of Aligning CEO Functional Experiences with Competitive Strategies. *Journal of Management*, 26, 733-762.
- [8] Chakravarthy, B. (1997). A New Strategy Framework for Coping with Turbulence. *Sloan Management Review*, 38, 2, 69-82.
- [9] Chakravarthy, B. & Lorange P. (2008). Driving renewal: the entrepreneur-manager. *Journal of Business Strategy*, 29, 2, 14-21.
- [10] Claver-Cortés, E., Pertusa-Ortega, E. M. & Molina-Azorín, J. F. (2012). Characteristics of organizational structure relating to hybrid competitive strategy: Implications for performance. *Journal of Business Research*, 65, 993-1002.
- [11] D'aveni, R. A., Dagnino, G. B. & Smith, K. G. (2010). The age of temporary advantage. *Strategic Management Journal*, 31, 1371-1385.
- [12] Dess, G. G. & Beard, D. W. (1984). Dimensions of Organizational Task Environments. *Administrative Science Quarterly*, 29, 52-73.
- [13] Dess, G. G. & Davis, P. S. (1982). An Empirical Examination of Porter's (1980) Generic Strategies. *Academy of Management*, 8, 7-11.
- [14] Dess, G. G., Lumpkin, G. T., Eisner, A. & Mcnamara, G. (2012). Strategic Management. Creating Competitive Advantages. *McGraw-Hill*. 6th edition.
- [15] Duncan, R. (1976). The ambidextrous organization: Designing dual structures for Innovation. *The Management of organization*, 1, 167-188. New York. North Holland.
- [16] Gehani, R. R. (2013). Innovative Strategic Leader Transforming From a Low-Cost Strategy to Product Differentiation Strategy. *Journal of Technology Management & Innovation*. 8, 2, 144-155.
- [17] Gibson, C. B. & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47, 209-226.
- [18] Gopalakrishna, P. & Subramanian, R. (2001). Revisiting the Pure versus Hybrid Dilemma. *Journal of Global Marketing*, 15, 61-79.
- [19] Han, M. (2007). Achieving superior internationalization through strategic ambidexterity. *Journal of Enterprising Culture*, 15, 43-77.
- [20] Han, M. & Nikhil, C. (2008). Strategic ambidexterity and performance in international new ventures. *Canadian Journal of Administrative Sciences / Revue Canadienne des Sciences de l'Administration*, 25, 335-349.
- [21] He, Z.-L. & Wong, P.-K. (2004). Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. *Organization Science*, 15, 481-494.
- [22] Hill, C. W. L. (1988). Differentiation Versus Low Cost or Differentiation and Low Cost: A Contingency Framework. *Academy of Management Review*, 13, 401-412.

Contact authors for the full list of references.

Micro-enterprises and the internet adoption: an Italian case study

*Federica Pascucci, f.pascucci@univpm.it
Chiara Gigliarano, c.gigliarano@univpm.it
Gian Luca Gregori, g.gregori@univpm.it
Silvio Cardinali, s.cardinali@univpm.it
Università Politecnica delle Marche, Italy*

Micro-enterprises and the internet adoption: an Italian case study

Abstract

This paper aims to expand on the knowledge regarding the relationship between small business and the Internet, through an analysis of the main factors that influence the decision to use this technology in the management of micro-enterprises. After a thorough analysis of the literature, a model was created and four hypotheses were developed which were subsequently subjected to empirical testing on a sample of 600 firms. The four hypotheses are related to different factors that are relevant to Internet adoption: company size, geographical location, the type of industry and the level of internationalization. The statistical analysis carried out on the companies surveyed shows that there is still not widespread use of the Internet and that the decision to use this technology is influenced by the size of the company and the sector it operates in, while location is not a significant factor. The results of the research constitute only the first phase of a larger research process which will also investigate the ways in which the Internet is used and the related implications concerning the competitiveness of these enterprises.

Keywords: SMEs; micro-enterprises; Internet; company size; internationalization.

Introduction

Numerous research studies have shown that firms that are active on-line grow more rapidly and have a higher degree of internationalization, from the standpoint of sales, than do firms that are not (The Boston Consulting Group, 2011, 16). In Italy, however, recent studies reveal that Internet usage by small businesses remains rather low, despite the advantages that could be had through the use of the Web in terms of business management, productivity and growth. As a matter of fact, increased use of the Internet could represent an important and strategic innovation for many smaller businesses, thanks to the organizational flexibility and rapid decision-making ability deriving from their smaller size which would make them better able to exploit the dynamics and variety offered by electronic environments, through experimentation with new business models and innovation, compared to larger firms (Pascucci, 2012, 177; Jutla et al., 2002, 140). Empirical studies have shown a relevant and positive relationship between Internet usage and the economic performance of SMEs, measured in terms of increased revenues and reduced costs, albeit with some differences due to the business sector to which they belong (Johnston et al., 2007, 359; Drennan and McColl-Kennedy, 2003, 306; Davis and Hareston, 2000, 115).

The new information and communication technologies could significantly contribute to improving the competitiveness of Italian SMEs, even on the international level. Worth noting is the importance of the role played by these firms in both the domestic and European economies: SMEs make up 99.8% of the enterprises in the 27-nation EU and 67.4% of total employment ("EU SMEs in 2012: at the crossroads", Annual Report on SMEs in Europe, September 2012). Italy is the country with the highest number of SMEs (99.9% of total firms) and the majority of these are micro and small enterprises (94.6% and 4.8%, respectively). Of these, artisan businesses carry a significant weight, in terms of numbers (28.1% of Italian businesses), employment figures (18.3% of the total), and national added value (12.8% of the total), as well.

In light of the relevance of this category of businesses, it appears quite surprising that so few studies have been conducted on Internet usage by these firms.

An analysis of the literature on the adoption of innovations (ICT and the Internet, in particular) in SMEs is the underlying basis upon which the research framework and hypotheses were built; subsequently these hypotheses underwent empirical testing on a sample of 600 businesses in the Marche region. This represents the first phase of a much broader research project which foresees a two-pronged analysis, initially, of the implications of Internet usage for business performance and subsequently, of the ways the Internet is used as a marketing tool.

The paper is structured as follows. First, a brief review of the literature pertaining to the relationship between the Internet and SMEs will be made, followed by the description of the research model, hypotheses and methodology;

then, in the final paragraphs the findings will be presented and the main implications of the analysis conducted will be discussed, along with the limitations of the study and prospects for future research paths.

Literature review

The relationship between SMEs and technological innovation, especially ICT and the Internet, is one of the topics that is most often the object of research by management scholars as well as by industrial economists. Most of these studies, however, concern the vast and non-homogeneous sector of SMEs (Cedrola, 2009; Alam, 2009; Levy et al., 2005, 6; Grandon and Pearson, 2004; Ramsey et al., 2003; Drew, 2003; Caldeira and Ward, 2003; Vescovi and Ieseppon, 2002, 511), which includes organizations of varying size (from 1 to 250 employees) and structure.

Business size is a significant factor that can influence the behaviour of SMEs vis-à-vis technologies such as ICT and/or the Internet and therefore, also influence the decision to adopt innovation or not. The relationship between company size and Internet usage can be explained from two different perspectives:

- a) Size as a proxy for the availability of resources to invest; according to this view, smaller business size represents an obstacle to the adoption of technology because it is an indicator of a lack of financial, managerial and knowledge resources, which characterizes smaller enterprises .
- b) Size as a proxy for “information complexity” within the organizational structure of the firm; according to this view, smaller sized businesses do not perceive the need to adopt the Internet as a tool because their information needs are less complex than those of larger firms. As the organization grows, the degree of complexity of the information to be managed also grows and thus, there is increased incentive to invest in Internet technology (Burke, 2005, 80).

Some scholars have highlighted the existence of a “digital divide” even within the category of SMEs as well as between them and large enterprises (Arbore and Ordanini, 2006, 84). According to Levenburg (2005, 101), not only are there significant differences among micro-, small- and medium-sized enterprises regarding technology usage, in the sense that micro-enterprises are lagging behind the others and their usage is very basic, but there is also a variance in the entity of the consequent benefits. This means that when smaller businesses begin to use the Internet in a more structured way, the benefits they derive from it are much greater than those being reaped by the other categories of enterprises.

In light of this, it could be too limiting to investigate the relationship between Internet usage and SMEs without taking into consideration the size variance of the enterprises, the consequence being inconsistency and contradiction in the research findings (Bordonaba-Juste et al., 2012, 213; Parker and Castleman, 2007, 30; Bengtsson et al., 2007, 38; Burke, 2005; Levenburg, 2005, 101).

This work positions itself in the latter research stream, as it recognizes, on the one hand, the relevance of business size even within the SME category and, on the other hand, the importance of focusing attention on a specific sub-category which is often overlooked by research studies, i.e., micro-enterprises and artisan ones, in particular . In fact, from an analysis of both Italian and foreign literature, there emerges a significant knowledge gap on Internet usage by small businesses, especially by micro-enterprises. Little has been published on the technological behaviour of this particular type of enterprise (Bordonaba-Juste et al., 2012, 213; Davis and Vladica, 2006, 1; Fillis et al., 2004, 180). In some studies, the smallest enterprises were explicitly excluded from the analysed sample (Bayo-Moriones and Lera-Lopez, 2007, 357; Ihlstrom and Nilsson, 2003, 212; Wade et al., 2004, 343) .

The literature review reveals the following two primary research streams regarding small businesses.

1. Analysis of the factors (internal and external to the company) which either hinder or facilitate the adoption of the Internet as a management tool. Hairuddin et al. (2012, 497) investigated the barriers to the adoption of IT in Malaysian micro-enterprises that produce traditional batik cloth and found the main obstacles to be lack of knowledge and capability as well as scarcity of financial resources. The characteristics inherent to the sector were also considered among the influencing factors, particularly, intense competition (Peltier et al., 2012, 423; Pontikakis et al., 2006, 346; Dholakia and Kshetri, 2004, 319; Kowtha and Choon, 2001, 237; Hollestein, 2004, 338; Premkumar and Roberts, 1999, 481; Premkumar and Ramamurthy, 1995, 334), degree of uncertainty (Peltier et al., 2012, 423), type of business activity (Cheung and Huang, 2002, 382), pressure from international competition (Hollestein, 2004, 338), and pressure

from clients and suppliers to adopt new technologies . According to these studies, firms show a greater propensity to adopt new technologies in those sectors characterized by more intense competition and by a higher degree of uncertainty. In a sample of Italian SMEs, Arbore and Ordanini (2006, 90) found a relevant relationship between the size of the city in which the firm is located and the adoption of a broadband Internet connection; this is especially true of smaller sized businesses located in small towns or rural areas where the location represents an obstacle because there are fewer resources available (e.g., fewer IT specialised services or providers), making it more difficult for these businesses to use innovative technologies effectively.

2. Analysis of the implications that Internet adoption can have on company performance. Poon and Swatman (1999, 11) conducted a qualitative survey of 23 Australian firms in which they analysed the perceived benefits of online activity and in particular, of e-commerce, classifying them as “direct” or “indirect”, as well as “short-“ or “long-term”. Examples of direct, short-term benefits are savings in communication costs and increased sales, whereas direct long-term benefits could be increased client loyalty and the development of long-term business relationships. Examples of indirect benefits are unexpected business opportunities in the short and the long term.

Methodology

The aim of the paper is to study the relationship between small business size and Internet usage so as to determine not only the degree to which this technology is adopted, but also to highlight the factors that most greatly influence that adoption.

Figure 1 presents the framework of the study and related research hypotheses; it shows both the first phase in which the results of the research are outlined and the second phase which is still in progress. While in the first phase the object of the research is the strategic decision to adopt Internet technology made by the firm’s governing body, in the second phase attention is shifted to the management action, i.e., the way in which the Internet is utilised in marketing processes.

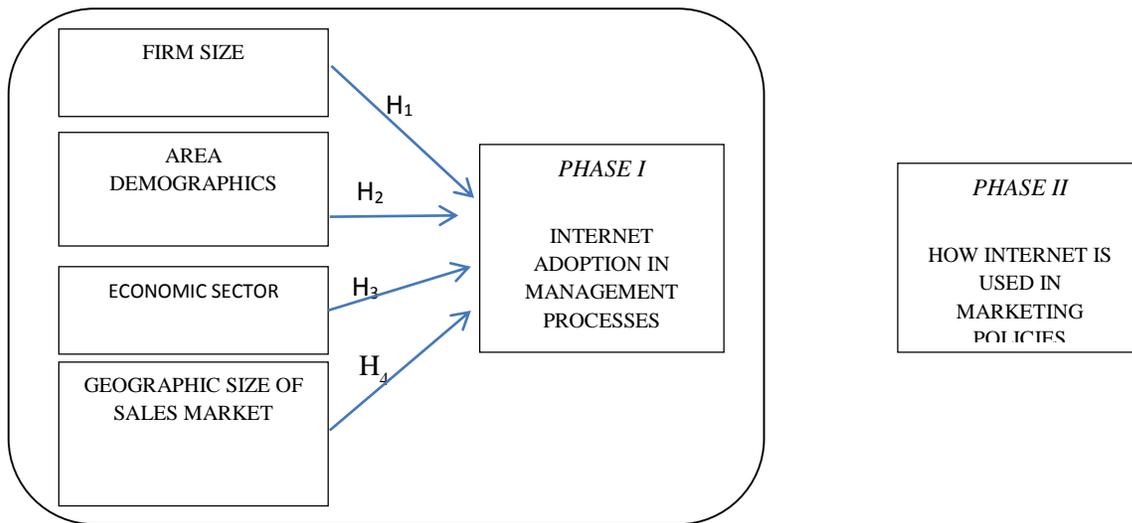


FIGURE 1: RESEARCH MODEL AND HYPOTHESES

Source: Authors’ work

The model strives to describe Internet usage in the management of artisan micro-enterprises in the Marche region, as a function of the following four variables.

1. Firm size – as an expression of the availability of resources and competences internal to the organization, which can be utilised to adopt technology effectively. Studies focused on the relationship between firm size and the adoption of the Internet (as well as ICT) have yielded contrasting results, some have shown the existence of a positive relationship (Bordonaba-Juste et al., 2012, 220; Kowtha and Choon, 2001, 237; Khemthong and Roberts, 2006; Lertwongsatien and Wongpinunwatana, 2003; Dholakia and Kshetri, 2004, 319; Khemthong and Roberts, 2006, 56; Burke, 2005, 83; Levenburg, 2005, 101; Arbore and Ordanini, 2006, 89; Dandridge and Levenburg, 2000, 86; Thong and Yap, 1995, 437), while others have not found there to be any relevant relationship (Tan et al., 2010, 50; Pontikakis et al., 2005, 349). The non-homogeneous nature of the findings points to the need for further research into the role played by firm size; the first hypothesis is therefore:

H1 Internet usage is positively influenced by firm size.

2. Geographic location of the firm – as an expression of the availability of environmental and therefore “external” resources that can facilitate or hinder the adoption of the Internet. Since small enterprises find it challenging to overcome the hurdle of managing the complexity of introducing new technologies using their own internal resources, dealing with the quantitative and qualitative range of services offered can represent a determining factor, both technically and strategically, in the decision to adopt the Internet as a management tool. Depending on where the business is located, the services offered and the available infrastructure may vary considerably, according to whether the firm is in a large city or in a small town or rural area, in a coastal area as opposed to an inland area, or to which province it belongs. Thus, the second research hypothesis is:

H2 Internet usage is positively influenced by the demographics of the area in which it is located.

3. Economic sector – as an expression of the type of business activity undertaken by the organization. As far as the influence the economic sector plays on a firm’s propensity to adopt the Internet is concerned, the results of the studies conducted are not univocal; some show that the adoption of Internet (and ICT in general) is influenced by the features pertaining to the sector to which the firm belongs (Love et al., 2005, 961), whilst others conclude that there is no such influence (Thong and Yap, 1995, 436; Bordonaba-Juste et al., 2012, 221; Pontikakis et al., 2005, 349) and Bengtsson et al. (2007, 39) have found that market pressure only exerts marginal influence on Internet usage by SMEs, no matter what their size. Thus, there is a need for additional research on sector influence. Hence, the third research hypothesis is:

H3 Internet usage is influenced by the economic section in which the firm operates

4. Geographic size of the sales market – for the firm’s products can be very small (only provincial or regional level, at best) for some and can be larger (even to the international level), for others. As regards the firm’s level of internationalization, it is worth pointing out that some contributions to the literature interpret international market presence, in some cases, as the cause (Bayo-Moriones and Lera-Lopez, 2007) and, in other cases, as the consequence (Mostafa et al., 2005) of the usage, or lack thereof, of new information technology. In this phase of the research, internationalization was researched as a causal factor, thus testing the following hypotheses:

H4 Internet usage is influenced by the firm’s local, domestic and international market size.

Over the course of 2012, the research hypotheses were subjected to empirical testing on a sample of 600 firms in the Marche region, by means of a structured questionnaire administered through a telephone survey. The sample was put together by EBAM (Ente Bilaterale Artigianato Marche), a bi-lateral agency for Marche region artisan enterprises as a stratified sample (based on sector, turnover, and size factors) of regional enterprises in the ‘Asia’ archive produced by ISTAT.

In order to test the relevance of the impact of the factors presented in Figure 1 regarding Internet usage by firms, a logistic regression model was developed in which the dependent variable is represented by the probability of using the Internet ($y=1$) compared to the probability of not using it ($y=0$). This type of regression model is applied in cases when the dependent y variable is dichotomous, as in this case under analysis. The logit model is as follows:

$$\text{logit}(p) = \log\left(\frac{p}{1-p}\right) = \beta_0 + \sum_{i=1}^K \beta_i x_i,$$

where $\text{logit}(p)$ is the logit function, p is the probability that the event $y=1$ will take place and x_1, x_2, \dots, x_K are the explanatory variables. This model therefore assumes that it is the logit transformation of the probability of using the Internet that has a linear connection to the predictor variables.

The explanatory variables in this case are the number of employees (as a firm size proxy), the size and proximity to the coast of the municipality in which the firm is located and the province (as a proxy of the firm's geographic location), the ATECO code referred to the firm's business activity (as the economic sector proxy), and the percentage of turnover at each of the regional, national and international levels (as a proxy of the geographic size of the sales market).

Results and discussion

First of all, the research findings show that in the year 2012 less than a third (31.17%) of artisan enterprises utilised the Internet for their business activity and the remaining two thirds 68.83% stated that they do not use it.

The average number of workers in artisan enterprises that do not use the Internet is 3.4, whereas the average is 7.4 in those enterprises that do navigate on the Internet. Therefore, it appears that size significantly influences Internet usage by artisan enterprises in the Marche region. The principal sectors in which there is the heaviest Internet usage are the mechanical and the woodworking sectors, whilst the family services sector hardly shows any web navigation. There do not appear to be any marked differences in the propensity for Internet usage among coastal and non-coastal municipalities, as seen in Table 3. This table also shows that the size of the municipality in which the business is located does not seem to affect the number of enterprises using the Internet; in particular, the frequency of use figures are about the same, regardless of whether it is located in a municipality with a population below or above the regional average for the Marche (approximately 8,600 inhabitants). There do not appear to be any marked differences in the propensity for Internet usage among coastal and non-coastal municipalities, as seen in Table 3. This table also shows that the size of the municipality in which the business is located does not seem to affect the number of enterprises using the Internet; in particular, the frequency of use figures are about the same, regardless of whether it is located in a municipality with a population below or above the regional average for the Marche (approximately 8,600 inhabitants).

In order to establish whether the evidence from the Tables discussed above is statistically relevant, seven different logistic regression models (see Table 1) were estimated. The first five models separately analyse the effects of each explanatory variable; the first model (M1) analyses the municipality (i.e., its size and proximity to the coast) where the artisan enterprise is located; the second model (M2) considers the differences between enterprises located in different provinces; the third (M3) studies the impact of the number of workers; the fourth (M4) analyses the effects of the enterprise's sales market size; the fifth (M5) looks at the differences by economic sector.

Each model was tested for multicollinearity among the independent variables, through the use of a VIF (variance inflation factor). If the VIF index values are greater than 10, then the independent variable can be considered a linear combination of the others, whereas in the case of a model with a single regressor, the VIF index is 1. All of the regressors for the seven models present indicator values that are well below the critical threshold (the maximum value is equal to 2.43 for the size of the municipality in model M7), thereby showing an absence of multicollinearity in the models proposed. The average value of the VIF index for each model is reported in Table 1.

From an early analysis, it emerges that:

- (i) neither the size of the municipality, nor its proximity to the coast have a relevant impact on Internet usage;
- (ii) the province of Fermo displays significantly higher Internet usage compared to the other provinces in the Marche region;
- (iii) as the number of workers employed in an enterprise rises, so does the probability for Internet usage;
- (iv) enterprises that sell their products outside of the province (in the region, in Italy, in Europe or abroad) use the Web significantly more than do enterprises whose clientele is predominantly local;
- (v) enterprises in the woodworking and mechanical sectors use the Internet significantly more than do those in the textile sector; those in the family services sector show the least use of all.

Model M6 studied the combined effects of the features of the territory where the enterprise is located (province, size of the municipality and its proximity to the coast) along with the size of the firm and its exports; the estimates obtained are analogous to those of models M1 through M4.

TABLE 1: ESTIMATES OF THE SEVEN LOGISTIC REGRESSIONS

	M1	M2	M3	M4	M5	M6	M7
Size of the municipality	-0.033					-0.149	0.133
Coastal municipality	-0.172					0.021	-0.068
Province (ref: <i>Ancona</i>)							
<i>Pesaro-Urbino</i>		0.261				0.234	-0.133
<i>Macerata</i>		-0.270				-0.445	-0.589*
<i>Fermo</i>		0.558*				0.653*	0.741
<i>Ascoli Piceno</i>		0.301				0.488	0.772**
Total workers			0.156***			0.108***	0.112***
Exports (ref.: <i>within the Province</i>)							
<i>outside Europe</i>				2.060***		1.428***	0.632
<i>within the EU</i>				3.136***		2.578***	2.073***
<i>in Italy</i>				1.874***		1.553***	1.289***
<i>within the Region</i>				0.669***		0.651**	0.296
Sector (ref.: <i>Textile</i>)							
<i>Other manufacturing sectors</i>					0.618*		0.752*
<i>Other services</i>					-0.940**		0.167
<i>Footwear</i>					0.513		0.846*
<i>Woodworking</i>					1.580***		2.239***
<i>Mechanical</i>					1.511***		1.976***
<i>Family services</i>					-2.096***		-0.855
Sample size (n)	599	600	598	600	600	597	597
P-value(chi ²)	0.518	0.072	0.000	0.000	0.000	0.000	0.000
Pseudo R ²	0.002	0.012	0.103	0.148	0.167	0.201	0.299
VIF (Variance Inflation Factor)	2.03	1	1	1	1	1.55	1.72

Source: Authors' work based on EBAM data.

From an early analysis, it emerges that:

- (i) neither the size of the municipality, nor its proximity to the coast have a relevant impact on Internet usage;
- (ii) the province of Fermo displays significantly higher Internet usage compared to the other provinces in the Marche region;
- (iii) as the number of workers employed in an enterprise rises, so does the probability for Internet usage;
- (iv) enterprises that sell their products outside of the province (in the region, in Italy, in Europe or abroad) use the Web significantly more than do enterprises whose clientele is predominantly local;
- (v) enterprises in the woodworking and mechanical sectors use the Internet significantly more than do those in the textile sector; those in the family services sector show the least use of all.

Model M6 studied the combined effects of the features of the territory where the enterprise is located (province, size of the municipality and its proximity to the coast) along with the size of the firm and its exports; the estimates obtained are analogous to those of models M1 through M4.

Lastly, model M7 represents the final complete model which takes into account the combined effects of all of the explanatory variables considered. A first remark worthy of note regards how the impact of all the explanatory variables on the variable target (i.e., the sign of the coefficients) remains nearly constant throughout the various models considered, thereby indicating the robustness of the estimates. It follows then, that all regressors remaining equal, the probability of using the Internet does not depend, in a statistically relevant manner, on the size of the municipality in which an enterprise is located, or on its proximity to the coast. This finding remains consistent in all of the models considered.

In analysing the provincial location, the situation changes slightly in the final model where the economic sector is included, which does not occur in the others. Here, it is no longer the province of Fermo but that of Ascoli Piceno that stands out with significantly higher Internet usage compared to Ancona, whereas the province of Macerata shows significantly lower usage. One partial explanation for this difference lies in the fact that most of the micro-enterprises in the Fermo area are in the footwear sector, thus the relevance of these enterprises shows up in the economic sector variable and not in the province sector variable. It is plain to see, from Table 2, how important the footwear industry is for the province of Fermo.

This explains why, in model M7, this province no longer appears so significant once the economic sector is included in the regressors.

Research hypothesis H2 can therefore only be confirmed in part, with reference to the province variable.

Firm size again shows a clear impact on the propensity for Internet usage as, *ceteris paribus*, the number of workers increases the probability that the enterprise will utilise the Internet for business purposes also increases. This confirms the first research hypothesis (H1).

TABLE 2: RELATIONSHIP BETWEEN PROVINCIAL LOCATION AND ECONOMIC SECTOR OF THE ENTERPRISE

Province	Textile	Footwear	Woodworking	Mechanical	Family services	Other manufacturing	Other services	Total
AN	19.0	0.6	8.1	23.0	14.9	10.9	23.6	100.0
	37.9	1.2	16.5	44.0	30.2	27.9	42.3	29.1
AP	21.8	6.4	9.0	11.5	24.4	11.5	15.4	100.0
	19.5	5.9	8.2	9.9	22.1	13.2	12.4	13.0
FM	10.0	62.0	0.0	14.0	0.0	0.0	14.0	100.0
	5.8	36.5	0.0	7.7	0.0	0.0	7.2	8.4
MC	7.0	30.4	12.0	10.8	13.9	13.9	12.0	100.0
	12.6	56.5	22.4	18.7	25.6	32.4	19.6	26.4
PU	15.1	0.0	32.4	13.0	13.7	13.0	13.0	100.0
	24.1	0.0	52.9	19.8	22.1	26.5	18.6	23.2
Total	14.5	14.2	14.2	15.2	14.4	11.4	16.2	100.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Authors' work based on EBAM data.

Differences in Internet usage are also due to the economic sector in which the enterprises operate, thus confirming the third research hypothesis (H3). Table 5 plainly shows how the economic sector (the woodworking, the mechanical, and the footwear ones, especially) significantly influences the probability of using the Web, all other regressors remaining equal. Specifically, the odds (i.e. the ratio between probability *p* of using the Internet and the probability of not using it) in woodworking firms are equal to 3.6, the odds in mechanical firms are 7.2 and the odds in footwear firms are 2.3 times the odds for Internet usage by firms in the textile sector .

The fourth research hypothesis, too, is confirmed by empirical evidence; the analyses clearly show that the larger the sales market is, the larger the probability of Internet usage is. In contrast to model M7, in this model once the economic sector is inserted as a control variable, sales of goods and services within the region or in nations outside of Europe is no longer statistically relevant. In particular, looking at the odds for Internet usage by enterprises that only sell within their province, the odds for enterprises that sell in all of Italy are 3.6 times greater and the odds for enterprises that export to European nations are 7.9 times greater.

In the M7 model, "Family services" and "Other services" lose relevance because they are heavily dependent on the level of internationalization, as shown in Table 3.

TABLE 3 : RELATIONSHIP BETWEEN SIZE OF SALES MARKET AND ECONOMIC SECTOR

Sector	Mostly in the Province	Mostly in the Region	Mostly in Italy	Within Europe	Outside of Europe	Total
Other manufacturing	39.71	14.71	33.82	8.82	2.94	100
	8.33	10.99	16.79	22.22	10	11.35
Other services	79.38	13.4	7.22	0	0	100
	23.77	14.29	5.11	0	0	16.19
Footwear	45.88	31.76	11.76	4.71	5.88	100
	12.04	29.67	7.3	14.81	25	14.19
Woodworking & Furniture	37.65	16.47	30.59	7.06	8.24	100
	9.88	15.38	18.98	22.22	35	14.19
Mechanical	36.26	14.29	35.16	7.69	6.59	100
	10.19	14.29	23.36	25.93	30	15.19
Services to people	100	0	0	0	0	100
	26.54	0	0	0	0	14.36
Textile	34.48	16.09	44.83	4.6	0	100
	9.26	15.38	28.47	14.81	0	14.52
Total	54.09	15.19	22.87	4.51	3.34	100
	100	100	100	100	100	100

Source: Authors' work based on EBAM data.

Selling “within the region” loses relevance because it is heavily dependent on the footwear sector (which becomes relevant in model M7). Internationalization “outside of Europe” loses relevance because it is heavily dependent on the footwear (which becomes relevant in model M7), the woodworking, and the mechanical sectors.

It is therefore evident that there exists a relationship of “dependence” between the “economic sector” variable and the “level of internationalization” variable, as well as between the firm’s business sector and its “province of provenance”. In order to determine the order of importance of the explanatory variables considered in the analysis, it becomes necessary to compare the pseudo- R2 indices for each univariate logistic regression model (indicated in Table 5). As can be observed, the variables that identify the localization of the artisan enterprises do not have a conjoint relative impact on the propensity for Internet usage (the p-value of the Chi-squared test is far greater than any level of acceptable relevance and the pseudo- R2 equals zero). Of borderline relevance is the province variable, for which the p-value of the Chi-squared test is under 10% and the pseudo- R2 is very low (0.012). The best explanatory variables for Internet usage are, in increasing order of importance: the number of workers employed (pseudo- R2 equals 0.103), the size of the firm’s sales market (pseudo- R2 equals 0.148) and the economic sector in which it operates (pseudo- R2 equals 0.167).

Implication and further research

As regards the factors that influence Internet usage, the results of the present study confirm some of the evidence already discussed in the national and international literature on the broader topic of SMEs. Nevertheless, it is to be stressed that micro-enterprises do not, from different managerial aspects, display homogeneous characteristics within this macro grouping, a factor which has come to light in this analysis.

Internet usage is not uniform in the various economic sectors under scrutiny: it is more frequent in manufacturing than in services sectors. This appears somewhat surprising in that it would have been fairly reasonable to expect greater Internet usage in consumer sectors, such as people services, than in business to business ones, such as the majority of the manufacturing sectors included in the study. A possible explanation can be found in the fact that Internet adoption by industrial micro-enterprises has been induced by “pressure” from larger client-firms that already use this technology.

Still with regard to empirical evidence, it appears that firm location – analysed in terms of the size of the municipality to which it belongs and the geographical area (coastal or inland area) – does not influence Internet usage for managerial

purposes. This is only partly in line with the findings of other studies. Nevertheless, it is worth highlighting the fact that in our analysis, the larger cities were not considered separately from other municipalities and that, in this region, there are no “metropolitan areas”. The latter could be made up of a different socio-economic fabric and so, be more influential on the factors that were considered in the present analysis.

The non-relevance of firm location taken along with the relevance of firm size could further be read as an indication that the resources internal to the firm have a greater influence than the external environmental resources do in determining Internet usage.

A final aspect that was examined, of particular interest for our analysis, was the degree of openness towards foreign markets and the possible influence this can have on the adoption of web-based tools for the growth of artisan business activities. We point out that this factor can be considered both an “antecedent” and a consequence of the adoption of these technologies, as is evidenced in the literature. In this first phase of the research we have found, and the empirical evidence has provided “strong” confirmation of this, that firms which show a greater propensity for selling their products beyond Italian borders are those which have a greater probability of adopting Internet technology. One possible explanation could lie in the fact that those firms which manifest a greater degree of internationalization also present more complex information and management needs than others, thus they have a more powerful incentive to utilise the Internet as a management tool.

A final point that cannot be overlooked is the peculiarity of small Italian businesses (that often belong to industrial districts, as in several cases in the sample) which means that it becomes more complicated to generalize the findings to other geographical contexts.

Bibliography¹

- [1] ARBORE A., ORDANINI A. (2006), "Broadband divide among smes. The role of size, location and outsourcing strategies", *International Small Business Journal*, vol. 24, n. 1, pp. 83-99.
- [2] BAYO-MORIONES A., LERA-LOPEZ F. (2007), "A firm-level analysis of determinants of ICT adoption in Spain", *Technovation*, vol. 27, n. 6-7, pp. 352-366.
- [3] BROWN D.H., KAEWKITIPONG L. (2009), "Relative size and complexity: e-business use in small and medium sized tourism enterprises in Thailand", *Journal of Enterprise Information Management*, vol. 22, n. 1/2, pp. 212-231.
- [4] CALDEIRA M.M., WARD J.M. (2003), "Using resource-based theory to interpret the successful adoption and use of information systems and technology in manufacturing small and medium-sized enterprises", *European Journal of Information Systems*, vol. 12, pp. 127-141.
- [5] CHEUNG W.M., HUANG W. (2002), "An investigation of commercial usage of the World Wide Web: a picture from Singapore", *International Journal of Information Management*, vol. 22, n. 5, p.377-388.
- [6] DANDRIDGE T., LEVENBURG N.M. (2000), "High-tech potential? An exploratory study of very small firms' usage of the Internet", *International of Small Business Journal*, vol. 18, pp. 81-91.
- [7] DAVIS P.S., HARVESTON P.D. (2000), "Internationalization and organizational growth: the impact of Internet usage and technology involvement among entrepreneur-led family business", *Family Business Review*, vol. XIII, n. 2, pp. 107-120.
- [8] DAVIS C.H., VLADICA F. (2006), "Use of Internet technologies and e-Business solutions: a structural model of sources of business value among Canadian micro-enterprises", *Proceedings of the 39th Hawaii International Conference on System Science*.
- [9] DHOLAKIA R.R., KSHETRIN. (2004), "Factors impacting the adoption of the Internet among smes", *Small Business Economics*, vol. 23, pp. 311-322.
- [10] DRENNAN J., MCCOLL-KENNEDY J.R. (2003), "The relationship between Internet use and perceived performance in retail and professional service firms", *Journal of Service Marketing*, vol. 17, n. 3, pp. 295-311.
- [11] DREW S. (2003), "Strategic use of e-commerce by smes in the East of England", *European Management Journal*, vol. 21, n. 1, pp. 79-88.
- [12] FILLIS I., JOHANNSON U., WAGNER B. (2004), "Factors impacting on e-business adoption and development in the smaller firm", *International Journal of Entrepreneurial Behavior & Research*, vol. 10, n. 3, pp. 178-191.
- [13] GRANDON E.E., PEARSON J.M. (2004), "Electronic commerce adoption: an empirical study of small and medium US business", *Information and Management*, vol. 42, n. 1, pp. 197-216.
- [14] HILSTROM C., NILSSON M. (2003), "E-business adoption by smes – prerequisites and attitudes of smes in a Swedish network", *Journal of Organizational Computing and Electronic Commerce*, vol. 13, n. 3/4, pp. 211-223.
- [15] LEVENBURG N.M. (2005), "Does size matters? Small firms' use of e-business tools in the supply chain", *Electronic Markets*, vol. 15, n. 2, pp. 94-105.
- [16] LEVY M., POWELL P., WORRALL L. (2005), "Strategic Intent and E-business in smes: enablers and inhibitors", *Information Resources Management Journal*, vol. 18, n. 4, pp. 1-20.
- [17] PASCUCCI F. (2012), "Il web, il marketing e la crisi: prime riflessioni su alcuni casi aziendali", in Franco M., Gregori G.L., Marcone M.R. (a cura di), *Le opportunità oltre la crisi. Prospettive manageriali e strategie pubbliche dei Paesi dell'europa del Sud*, Società Editrice Esculapio, Bologna, p.171-192.

¹ Please contact the authors for the full list of references.

- [18] PELTIER J.W., ZHAO Y., SCHIBROWSKU J.A. (2012), "Technology adoption by small business: an exploratory study of the interrelationships of owner and environmental factors", *International Small Business Journal*, vol. 30, n. 4, pp. 406-431.
- [19] POON S. (2000), "Business environment and Internet commerce benefits - Small business perspective", *European Journal of Information Systems*, vol. 9, p.72-81.
- [20] POON S., SWATMAN P.M.C. (1999), "An exploratory study of small business Internet commerce issues", *Information & Management*, vol. 35, pp. 9-18.
- [21] TAN K.S., CHONG S.C., LIN B., EZE U.C. (2010), "Internet-based ICT adoption among smes. Demographic versus benefits, barriers, and adoption intention", *Journal of Enterprise Information Management*, vol. 23, n. 1, pp. 27-55.
- [22] THE BOSTON CONSULTING GROUP (2011), *Fattore Internet. Come Internet sta trasformando l'economia italiana*.
- [23] THONG J.Y.L., YAP C.S. (1995), "CEO characteristics, organizational characteristics and information technology adoption in small business", *Omega*, vol. 23, n. 4, pp. 429-442.
- [24] WALCZUCH R., VAN BRAVEN G., LUNDGREN H. (2000), "Internet adoption barriers for small firms in the Netherlands", *European Management Journal*, vol. 18, n. 5, p.561-572.

A Structural Model to Explain Customer Repurchase Intentions in Co-operative Banks

Enrico Geretto, enrico.geretto@uniud.it
Rubens Pauluzzo, rubens.pauluzzo@uniud.it
University of Udine, Italy

A Structural Model to Explain Customer Repurchase Intentions in Co-operative Banks

Abstract

Customer motivation and satisfaction have attracted the attention of bank management for a long time. They are key factors to better understand consumer behavior and encourage repeat purchase and customer loyalty.

The study has involved the submission of a questionnaire to 600 customers of small-sized co-operative banks in the North-eastern part of Italy. The main factors that are believed to characterize the originality of the contribution are identified in the following aspects:

- Italy has been facing the most profound economic crisis of the post-war period and, in this context, similar analyses have not been implemented yet;**
- Motivation and customer satisfaction surveys are less common for small-sized banks even if their core competitive advantage lies in a higher presence in the local market and in a higher degree of closeness to the customer's needs;**
- The hypotheses were tested with SEM (Structural Equation Modeling) techniques.**

Introduction

In the current competitive scenario, companies achieve better performance levels if they are able to increase their efficiency, provide high quality products/services, and improve the relationship with their customers. Long-term customer loyalty has become fundamental in service markets. In the banking sector, increasing the value perceived by the clients is considered crucial to improve customer satisfaction, value creation, and performance levels. The increased competitiveness and similarity of provided services have pushed banks to better identify the determinants of customers' choice between different financial intermediaries. Thus, understanding customer needs has become an imperative in order to measure the behavioral intentions of the clients. A successful banker should be able to anticipate customer needs, by providing high quality and more efficient services to increase customer satisfaction. Nonetheless, there is still a lack of consensus about the exact nature of the relationship between customers' needs, motivations, and their future behavior. Factors such as the ability of the service to satisfy specific and hidden clients' needs, or the emotional response arising from the trade-off between expected and perceived value of the relationship with the bank, are affected by the context, both historical and geographical, in which they were born, and they have different meanings because of the nature and characteristics of the financial intermediary that performs the measurement (ie. bank vs. insurance, national institution vs. regional institution).

This topic acquires particular relevance for small-sized banks, in which their local character, the traditional high retention rates, and the effects of the economic-financial crisis had a deep effect on the consolidated relationships with their customers. The main aim of the study is to describe a conceptual framework of the relationship between basic motivational determinants in consumer bank selection, customer satisfaction, and repurchase intentions of the customers.

The present paper focused on small-sized co-operative banks in the North-Eastern part of Italy because customer satisfaction and motivation surveys are more common for large-sized banks with a national significance, while they are less common for small-sized banks even if their core competitive advantage lies in a higher presence in the local market and in a higher care for the customer's needs. The study involved the submission of a questionnaire to a sample of 600 clients of co-operative banks. Data was analyzed with multiple statistical analysis techniques based on confirmatory factor analysis and Structural Equation Modeling (SEM). The hypotheses were tested with SEM techniques based on a latent structure model with explicit causal relations, developed by LISREL (Linear Structural RELationship) statistical packages 8.8 and 8.51 (Jöreskog and Sörbom, 2001).

Literature review

A correct relationship with the customers is based on interaction and dialogue, and represents the tool through which the bank seeks to increase its profitability and to decrease customers turnover. As stated by Ruggiero and Ciorra

(2007), the current competitive environment, the comparability of different offers, the increasingly personalized solutions, and the resulting increased customer mobility have forced banks to provide a service able to improve the trust relationship with their customers (El Saghier and Nathan, 2013). The greater the ability of the bank to meet the needs of the consumers, the greater the possibility that they will repeat the purchase in the future and provide positive feedback to other potential customers (Wong and Sohal, 2002). A loyal client buys more, has a lower price sensitivity, can introduce new customers, and leads to lower management costs compared to the acquisition of a new one (Omarini, 2004). This is also supported by the data obtained from the World Retail Banking Report and the Customer Experience Index (CEI) (Capgemini and Efma, 2013), which measure the perceptions of 18.000 customers in 35 markets: in the second half of 2013, 10% of the surveyed retail clients worldwide may have terminated the relationship with their banks and 41% of them were not sure to maintain that relationship in the future. As a consequence, it is fundamental to identify which managerial variables can influence the outcome of this relationship (Molina, Martin-Consuegra, and Esteban, 2007). Nonetheless, even if the main literature has suggested the most relevant factors that encourage the purchase intentions of the customers (Heskett, Jones, Loveman, Sasser, and Schlesinger, 1994; Reicheld and Sasser, 1990; Zeithaml, Parasuraman, and Berry, 1990; Gummesson, 1993; Anderson and Fornell, 1994; Schneider and Bowen, 1995), there is still a lack of consensus about the exact nature of the relationship between the perceived value of the product/service and the future behavior of the consumer (Gera, 2011). Cronin, Brady, and Hult (2000) stated that there was a significant divergence of opinion about the relationships (both direct and indirect) between quality, value, satisfaction, and behavioral intentions.

Henning-Thurau, Gwinner, and Gremler (2002) suggested that customer satisfaction is a central element in the process of exchange between company and consumer. Satisfaction is a key factor to better understand consumer behavior and encourage repeat purchase and customer loyalty. Banks need to better understand customers service requirements and their impact on behavioral intentions (Gerrard and Cunningham, 2001). An increase in customer satisfaction leads to higher levels of customer loyalty and retention (Bowen and Chen, 2001). Several scholars recognized the existence of a strong link between satisfaction and post-purchase intentions (Patterson and Spreng, 1997; Rust and Oliver, 1994; Cronin and Taylor, 1992; Anderson and Sullivan, 1990; Bitner, 1990; Zeithaml, 1988). Similarly, the perceived value of the product/service seems to be positively linked, both directly and indirectly through satisfaction, to the behavioral intentions of the customers (Brady and Cronin, 2001; Cronin et al., 2000). If the trade-off between the potential benefits and sacrifices generated by a product or service is positive, it seems reasonable that the customer will be satisfied and will repeat the purchase in the future or will provide positive feedback to other potential clients. Besides, satisfaction is also positively affected by the perceived value (Bolton and Drew 1991; Woodruff 1997). The motivation of the customers in the choice of a bank has been extensively analyzed (Yue and Tom, 1995). Some scholars suggested the existence of a link, both direct and indirect, between the motivation of the clients and their satisfaction (Shankar, Smith, and Rangaswamy, 2003; Czepiel, Solomon, Surprenant, and Gutman, 1985). Similarly, the motivations that push the consumer to choose a specific bank are also linked to the perceived value of its products/services (Jones, Mothersbaugh, and Beatty, 2002; Driscoll, 1999; Mylonakis, Malliaris, and Siomkos, 1998; Yue and Tom, 1995). In addition, there seems to exist a mediating role of the perceived value of the product/service in the relationships between motivation and satisfaction (Shankar et al., 2003; Bitner and Hubbert, 1994; Oliver, 1997) and between motivation and behavioral intentions (Yue and Tom, 1995; Mylonakis et al., 1998; Jones et al., 2002).

The study is related to specific aspects considered as relevant determinants of the motivations that push customers to choose a particular bank, and of the experience that affects the loyalty process. In this context, the study presents typical phenomena of social psychology, such as cognitive dissonance, which can produce significant distortions in consumer behavior and in the purchase model. Cognitive dissonance is related to the inconsistencies and contradictions between thoughts and actions that create psychological distress in the individual, which generally have been faced by changing the reference environment, the behavior, or the system of cognitive representations and their functional relationships (so-called cognitive world). Nonetheless, it is believed that the following hypotheses can explain the relationships between the initial choice of a bank, the perceived value of the products/services, the level of satisfaction, and the repurchase intentions. Thus, the study attempts to provide an answer to the following research questions:

- H1: Is there a positive and direct link between consumer motivation (MOT) and perceived value (PV)?

- H2: Does a positive and direct relationship exist between consumer motivation (MOT) and customer satisfaction (SAT)?
- H3: Is perceived value (PV) the antecedent of customer satisfaction (SAT)?
- H4: Is there a positive and direct relationship between perceived value (PV) and behavioral intentions (BI)?
- H5: Does a positive and direct link exist between customer satisfaction (SAT) and behavioral intentions (BI)?
- H6: Does perceived value (PV) mediate the effect of consumer motivation (MOT) on behavioral intentions (BI)?
- H7: Does perceived value (PV) mediate the effect of consumer motivation (MOT) on customer satisfaction (SAT)?
- H8: Does customer satisfaction (SAT) mediate the effect of perceived value (PV) on behavioral intentions (BI)?

The predicted hypotheses are presented in FIG. 1.

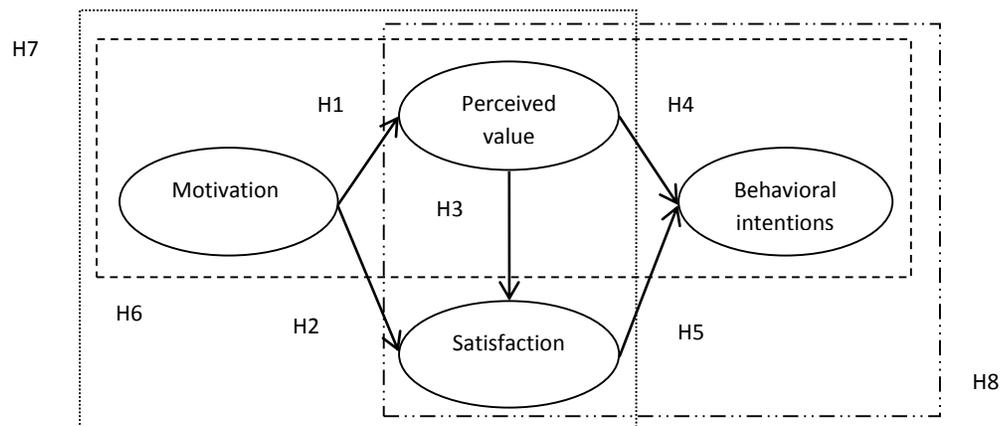


FIG. 1: STUDY MODEL

Method and measures

Sample and site

This cross-sectional study was carried out in the North-Eastern part of Italy and involved the submission of a questionnaire to the clients of co-operative banks. The sample was defined on the basis of the following steps:

- The selected co-operative banks were divided with reference to their size. The study focused on small-sized co-operative banks;
- In each of the selected co-operative banks, the clients were divided with reference to their segment (retail, corporate, private). The study focused on the retail segment;
- For each of the retail clients, the participants were selected on the basis of a random sampling.

A profile of the sample is provided in TABLE 1. All the participants were personally interviewed; the study was explained to them and their collaboration was requested. The study was undertaken during the period January to March 2013 and involved semi-structured face-to-face interviews. All participants gave their oral informed consent. A total of 600 replies were surveyed. The respondents showed the typical profile of retail customers of small-sized banks operating in restricted territorial areas. The most critical aspects arose from the lack of interest in becoming a shareholder of the bank, by subscribing equity shares, the reduced number of new customers, both in terms of age and length of the relationship, and the use of not particularly profitable basic services.

Multiple statistical analysis techniques were used in this study. These procedures include confirmatory factor analysis SEM. The hypotheses were tested with SEM techniques based on a latent structure model with explicit causal relations, developed by LISREL 8.8 and 8.51 (Jöreskog and Sörbom, 2001).

TABLE 1: PROFILE OF THE SAMPLE % (N = 600)

Gender		Age		Degree		Relations with banks		Length of the relation	
Male	54.22	18 to 29	6.12	Primary school	4.64	Only with 1 bank	54.33	<1 year	3.33
Female	45.78	30 to 39	11.18	Middle school	21.10	From 2 to 4 banks	44.17	1 to 4 years	14.50
		40 to 49	23.00	High School	48.73	>4 banks	1.50	5 to 10 years	19.33
		50 to 65	37.13	University	25.53			>10 years	62.84
		> 65	22.57						

The questionnaire was divided into three sections. The first one focused on socio-demographic aspects (type of customer, gender, age, level of education, professional position). The second part was related to the so called "banking profiles" of the client (relationships with one or more banks, length of the relationship with the bank, shareholder status, knowledge of the benefits of this status, types of services related to this status), in order to better understand the operational aspects of the relationship. The third part proposed a set of questions related to the perceptions of the customers, the atmosphere of the bank, the products offered, the quality of the service, loyalty, and satisfaction.

Measurement of Constructs

The constructs examined in this study were mainly explained by using a 7-point Likert scale, from a very low level of the item (scored as one) to a high level of the item (scored as seven) adapted from the main existing literature. The choice of the following scales derived from a selection of the main items to better understand how the motivations that led to the choice of a specific bank affect the value perceived by the customers and their satisfaction, and how these two aspects can influence customer loyalty.

Consumer Motivation (MOT) was measured by adapting the scales by Driscoll (1999), Mylonakis et al. (1998), and Yue and Tom (1995). The issue of customer motivation criteria in the banking sector has been extensively studied by several scholars (Safakli, 2007; Metawa and Almosawi, 1998; Hegazi, 1995; Ross, 1989; Anderson, Fox, and Fulcher, 1976). Even if the relevance of each determinant varies a lot among the different studies, there appears to be a consensus about the factors that have a higher impact on consumer motivation. In particular, convenient location (Yue and Tom, 1995; Kaufman, 1967; Mylonakis et al., 1998; Driscoll, 1999), quality/price ratio (Jones et al., 2002; Driscoll, 1999), advice of friends or family (Yue and Tom, 1995; Martenson, 1985; Mason and Mayer, 1974), staff courtesy and competence (Yue and Tom, 1995; Mylonakis et al., 1998; Ying and Chua, 1989), and service quality (Yue and Tom, 1995; Mylonakis et al., 1998) have been considered as the most important determinants of customer motivation within the banking industry. This information has become fundamental in order to better know the customer and implement a marketing strategy needed to reach new potential consumers and retain the old ones. A better knowledge of the motivations that push the consumers is also vital to differentiate the offer of the bank from those of its competitors (Safakli, 2007).

Perceived value (PV) was measured by adapting the scale developed by Zeithaml (1988). The concept of value has been considered as a trade-off between the potential benefits and sacrifices generated by a service or product to the customer (Gera, 2011; Zeithaml, 1988; Ravald and Grönroos, 1996; Lapierre, 2000; Teas and Agarwal, 2000; Woodall, 2003; Lin, Sher, and Shih, 2005; Parasuraman, Zeithaml, and Berry, 1988). Nonetheless,

the perception of value is characterized by several attributes and a high level of abstraction that leads to a concept considered as highly personal and context-specific (Sweeney and Soutar, 2001). The patterns of value perception may vary a lot from consumer to consumer. As suggested by Zeithaml (1988), consumers' responses may lead to a concept of value focused more on the price of the product or service, or on the quality they perceived by using that specific product/service. Obviously, each definition brings different sets of determinants that may have an influence on the consumers' choice. However, the concepts of value and quality cannot be considered as synonyms. In fact, value has a more individualistic core and is more related to the balance between the benefits and the sacrifices of a purchase. Besides, even though some conceptualizations of the value construct have included quality as its most relevant component, there could be several other factors that consumers may consider as relevant, such as prestige and convenience (Zeithaml, 1998; Holbrook and Corfman, 1985). As a consequence, benefits are mainly linked to the quality, prestige, and status symbol of the product or service, while sacrifices include the monetary and non-monetary (time spent, efforts) costs of a purchase. Though the value construct is a complex topic, with different potential meanings according to the context (Lin et al., 2005), its foundations are linked to the quest for the required functions or services at the lowest possible cost without lowering quality (Fong, Shen, and Cheng, 2001).

Customer Satisfaction (SAT) was measured by adapting the scale developed by Oliver (1997). Customer satisfaction is a key to long-term business success (Zeithaml, Berry, and Parasuraman, 1996). Its concept has been extensively analyzed since Cardozo's (1965) article. Nonetheless, there is a lack of a consensual definition of the theme. Furthermore, the concept of customer satisfaction is affected by the context in which its determinants may arise (Marsh and Yeung, 1999). So, the factors that lead a customer to a satisfaction status may differ from those that characterize another customer. Several scholars provided a notion of customer satisfaction related to the evaluation process that occurs after the purchase of a product/service (Oliver 1997; Halstead, Hartman, and Schmidt, 1994; Fornell, 1992; Howard and Sheth, 1969). In their opinion, the expectations and ideas that moved the consumer before the purchase have a fundamental influence in guiding his/her opinions after having experienced the product or service. As a consequence, satisfaction arises from the ex-post comparison between an ideal perception of the product or service and its effective advantages for the customer. Some other scholars focused more on the type of experience of the consumer. In particular, customer satisfaction has been conceptualized as either a cognitive (Bolton and Drew 1991; Howard and Sheth 1969; Tse and Wilton 1988) or an affective response to a purchase experience (Oliver 1997; Halstead et al., 1994; Westbrook and Reilly 1983). Even if there is a lack of consensus over the type of satisfaction, the most recent literature agrees on the emotional response of the construct (Giese and Cote, 2000).

Behavioral intentions (BI) was measured by adapting the scales by Patterson and Spreng (1997) and Babakus and Boller (1992). Behavioral intentions refer to the consumers' actions after the purchase experience and are mainly related to the repurchase intentions and positive word of mouth (Gera, 2011; Patterson and Spreng, 1997; Oliver, 1993; Anderson, 1998; Boulding, Kalra, Staelin, and Zeithaml, 1993; Babakus and Boller, 1992; Bagozzi, 1992). As regards the determinants of the behavioral intentions construct, repurchase intentions and positive word of mouth are considered as dimensions of the customer loyalty (Cronin et al., 2000; Durvasula, Lysonski, Mehta, and Peng, 2005; Parasuraman, Zeithaml, and Berry, 1994). Customer loyalty can be defined as "customers' behavioral response, expressed over time by some decision-making units, with respect to one or more alternative brands out of a set of such brands, and is a function of psychological processes" (Jacoby and Kyner, 1973). Several scholars have focused on the direct and indirect relationships between value, quality, satisfaction, and ex-post actions (Williams and Soutar, 2009; Cronin and Taylor, 1992; Bolton, 1998; Ostrom and Iacobucci, 1995; Fornell, Johnson, Anderson, Cha, and Everitt, 1996; Chang and Wildt, 1994). Even if there is a lack of a convergent view about the effective relationships (both direct and indirect) between the cited constructs, most part of the literature has suggested a strong link between satisfaction and repurchase intentions (Williams and Soutar, 2009; Rust and Oliver 1994; Bitner 1990). Patterson and Spreng (1997) also found the mediating role of satisfaction in the relationship between perceived value and repurchase actions.

TABLE 2 shows the scales used to measure the constructs.

TABLE 2: SCALES USED TO MEASURE THE CONSTRUCTS

Constructs	Scale Items	Cronbach alpha	Source
Consumer Motivation (MOT)	Proximity / comfort of the agency (MOT1) I knew someone in the agency / It is the agency used by my family (MOT2) It was the most convenient one (MOT3) I chose this bank because I was advised (MOT4) The bank provided me with a better service (MOT5) I liked the advertising (MOT6) The bank provided me with products to suit my needs (MOT7) Trustworthiness and reliability (MOT8) Staff courtesy and competence (MOT9) It offered a good quality / price ratio (MOT10)	0.819	Driscoll (1999), Mylonakis et al. (1998), Yue and Tom (1995)
Perceived Value (PV)	The value of the services is high (PV1) The relationship between quality and price is fair (PV2) The prices are reasonable (PV3)	0.919	Zeithaml (1988)
Customer Satisfaction (SAT)	Service in accordance to my expectations (SAT1) Service in accordance to my ideal service (SAT2) Overall satisfaction (SAT3)	0.921	Oliver (1997)
Behavioral Intentions (BI)	I will continue to use the services of the bank in the future (BI1) I would recommend the bank to someone who asks my advice (BI2) I would express positive views on the bank (BI3)	0.926	Patterson and Spreng (1997), Babakus and Boller (1992)

Analysis

Prior to testing and estimating for causal relationships between observed and latent variables, a confirmatory factor analysis was undertaken to determine whether earlier research findings on the identified constructs as well as the scales used and the assumptions made in the previous paragraphs could be confirmed. The factor analysis, incorporating the varimax option, assessed the validity of the measurement ($KMO=0.915$; $Sig.=0.000$). Internal consistency reliability was tested and the Cronbach alpha results of 0.819, 0.919, 0.921, and 0.926 were obtained for the constructs of MOT, PV, SAT, and BI respectively. The analysis supported the dimensional concepts and provided fullest evidence of construct validity.

The hypotheses were tested with SEM techniques based on a latent structure model with explicit causal relations. The estimated SEM, developed with LISREL 8.8 and 8.51 (Jöreskog and Sörbom 2001), follows a logic based on two steps. The first one is related to the process of estimating parameters, based on an interactive procedure aimed at minimising the gap between data produced by the model and observed data. The second step is based on a

comparison of the theoretical model with the data observed. If the gap between the matrix of the observed covariance and the expected matrix, generated by the programme, is higher than the gap attributable to the stochastic error, the model is rejected. The analysis will then determine if the model is able to represent the examined phenomena, through four different sets of fit indices: χ^2 test, overall model fit indices, incremental fit indices and residuals indices.

The integrated examination of the fit indices confirms whether the model is able to fit the data or not. χ^2 scores 573.86 with 147 degrees of freedom, p-value 0.00. Overall model fit indices show reasonable fit results. The Goodness of fit index (GFI) scores 0.91 and the Adjusted goodness of fit index (AGFI) 0.88. Critical N (CN) scores 205.41. Incremental fit indices show even better results. The Normed fit index (NFI) scores 0.97, the Non-normed fit index (NNFI) 0.97, while the Comparative fit index (CFI) scores 0.98. Residuals indices confirm that the assumed model is able to explain most of the observed data. The Root mean square residual index (RMR) scores 0.17, the Standardized RMR 0.046 and the Root mean square error of approximation index (RMSEA) 0.070, with 90 per cent confidence interval between 0.064 e 0.076. As regards the recommended values for the fit indices suggested by Schermelleh-Engel, Moosbrugger and Müller (2003) the model shows a reasonable fit. FIG. 2 provides the path diagram of the study model with regressors and stochastic error estimation.

With regard to the structural model, it should be noted that the hypothesized direct relations are partially confirmed. Lisrel model and statistical tests support hypotheses 1 (t-value=9.60; p-value<0.001), 3 (t-value=18.58; p-value<0.001), and 5 (t-value=17.18; p-value<0.001). Lisrel model does not support hypotheses 2 (t-value=1.46; p-value>0.05), and 4 (t-value=1.26; p-value>0.05). Data fails to confirm hypotheses 2 and 4. As regards the indirect effects, the structural model confirmed the mediating role of perceived value between motivation and behavioural intentions (t-value=8.51; p-value<0.001) and in the link between motivation and satisfaction (t-value=9.13; p-value<0.001). The relationship between perceived value and behavioral intentions is also mediated by satisfaction (t-value=13.09; p-value<0.001). A summary of these results is presented in TABLE 3.

The results show a strong direct link between SAT and BI, consistent with hypothesis 5, and between PV and SAT (hypothesis 3): the related coefficients, estimated by the statistical package, suggest a remarkable significance. The analysis also reveals a significant relationship between MOT and PV confirming the level of interdependence between these constructs (hypothesis 1). Finally, the study shows significant indirect effects between PV and BI (mediated by SAT) (hypothesis 8), between MOT and BI (mediated by PV) (hypothesis 6) and MOT and SAT (mediated by PV) (hypothesis 7). These results seem to be consistent with those obtained by similar studies, according to which the main determinant of customer loyalty is customer satisfaction, as well as customer satisfaction is mainly related to the perceived value of the provided products/services (Gera, 2001; Bagozzi, 1992; Cronin and Taylor, 1992; Parasuraman et al., 1988; Boulding et al., 1993; Zeithaml et al., 1996).

TABLE 3: ESTIMATION, T-VALUES, P-VALUES AND CONFIRMATION OF HYPOTHESES

DIRECT EFFECTS			INDIRECT EFFECTS		
REL.	COEFF.	T-VALUE	REL.	COEFF.	T-VALUE
SAT→BI	0.87***	17.18	PV→BI	0.67***	13.09
PV→SAT	0.77***	18.58	MOT→BI	0.35***	8.51
MOT→PV	0.42***	9.60	MOT→SAT	0.33***	9.13
MOT→SAT	0.05	1.46			
PV→BI	0.05	1.26			

Note: *: p-value<0.05; **: p-value<0.01; ***: p-value<0.001.

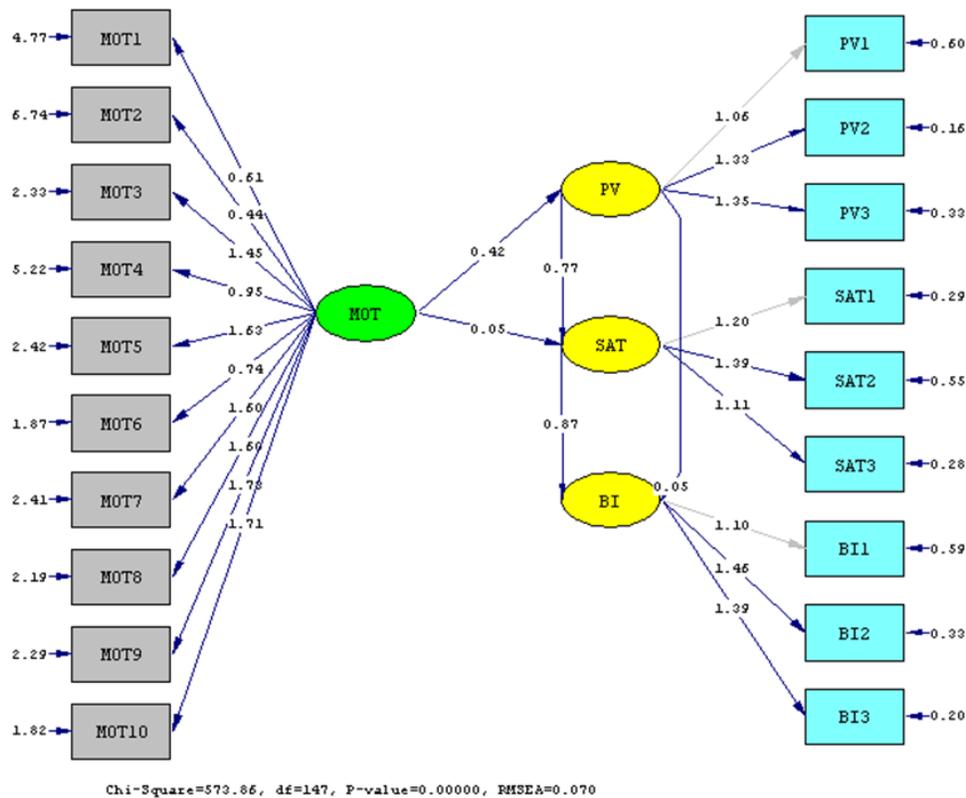


FIG. 2: PATH DIAGRAM OF LISREL MODEL WITH REGRESSORS AND STOCHASTIC ERRORS ESTIMATION

Discussion and conclusion

The robustness of the sample and the specific methodology used for the analysis lead to significant results. In particular, it is believed that some aspects may be useful for the management of small-sized banks, with reference to the efficient supervision and control, current and prospective, of the market share. It should be also emphasized that, thanks to a better understanding of the determinants of customer satisfaction and loyalty, the managers should be able to face those weaknesses that negatively affect a balanced management of the bank in the future, and increase the degree of attractiveness to young customers, a fundamental lever in the development of the business. It is also believed that a higher level of discrimination within the segment, with the related diversification of the supply, can positively influence the cross and up-selling phenomena. In this respect, the range of the offered products/services should be revisited in advance, in order to make it more suitable to the needs, both expressed and implied, of the customers.

The analysis of the data shows a strong relationship between the level of overall customer satisfaction and loyalty (to be understood in terms of repurchase intentions), in spite of the relative heterogeneity in the composition of the respondents. Even if the result is not surprising, it is possible to hypothesize a sort of “generalist and indistinct” perception of the bank by different customer segments, that perhaps should be appropriately differentiated in order to implement more appropriate commercial initiatives. The level of satisfaction requires a deeper consideration of customer expectations: it is known that the increased competitive pressure requires greater attention to the relationship

management and to the offer of quality products and services. Similarly, contact personnel should be focused on the identification of customers' latent needs, not just on the delivery of products and services.

The study also shows a very weak relationship between perceived value and behavioral intentions: this data seems to reflect a perception of products and services almost used as commodities and thus unable to produce an effective negative value in terms of the utility gap between use and non-use of them. If the relationship between perceived value and behavioral intentions is mediated by satisfaction, the results emphasize the existence of an even more significant link. As the perceived value was measured with a scale based on economic aspects, recording almost exclusively an impact of general satisfaction on customer loyalty means that the price lever can be hardly used to generate satisfactory economic returns. Customer loyalty should be related to factors other than the price paid, especially because of the main features of the respondents (ie. long-term relationship with the bank, high loyalty rates).

Finally, it is important to stress the relationship between consumer motivations and perceived value. In particular, as the main determinants of motivations are represented by the professional characteristics of the staff, as well as by the expectations of a good quality/price ratio, it is possible to confirm the perceptions of the clients (perceived value was mainly measured by economic aspects). This evidence seems to confirm the existence of a strong relationship between perceived value and customer satisfaction: the high value of products/services obviously leads to a good level of overall customer satisfaction.

References

- [1] Anderson, E. W. (1998). Customer Satisfaction and Word of Mouth, *Journal of Service Research*, 1 (1), 5-17.
- [2] Anderson, E. W., & Fornell, C. (1994). A customer satisfaction research prospectus, in Rust R. T., Oliver, R. (Eds.), *Service Quality: New Directions in Theory and Practice*, Thousand Oaks (CA), Sage Publications, 241–268.
- [3] Anderson, E. W., & Sullivan, M. W. (1990). The Antecedents and Consequences of Customer Satisfaction for Firms, *Marketing Science*, 12 (2), 125-143.
- [4] Anderson, W. T., Fox, E. P., & Fulcher, D. G. (1976), Bank selection decision and market segmentation, *Journal of Marketing*, 40, 40-45.
- [5] Babakus, E., & Boller G. (1992). An empirical assessment of the SERVQUAL scale, *Journal of Business Research*, 24 (3), 253–268.
- [6] Bagozzi, R. P. (1992). The self-regulation of attitudes, intentions, and behavior, *Social Psychology Quarterly*, 55 (2), 178–204.
- [7] Bitner, M. J. (1990). Evaluating Service Encounters: The Effect of Physical Surroundings and Employee Responses, *Journal of Marketing*, 54 (April), 69–82.
- [8] Bitner, M. J., & Hubbert, A. (1994). Encounter satisfaction versus overall satisfaction versus quality, in Rust R. T., Oliver, R. (Eds.), *Service Quality: New Directions in Theory and Practice*, Thousand Oaks (CA), Sage Publications, 72-94.
- [9] Bolton, R. N. (1998). A Dynamic Model of the Duration of the Consumer’s Relationship with a Continuous Service Provider: The Role of Satisfaction, *Marketing Science*, 17 (1), 45–65.
- [10] Bolton, R. N., & Drew, J. H. (1991). A Multi-Stage Model of Customers’ Assessments of Service Quality and Value, *Journal of Consumer Research*, 17 (4), 375-384.
- [11] Boulding, W., Kalra, A., Staelin, R., Zeithaml, V. A. (1993). A dynamic process model of service quality: from expectations to behavioural intentions, *Journal of Marketing Research*, 30, 7–27.
- [12] Bowen, J. T., & Chen, S. L. (2001). The relationship between customer loyalty and customer satisfaction, *International Journal of Contemporary Hospitality Management*, 13 (5), 213-217.
- [13] Brady, M. K., & Cronin, J. J. (2001). Some new thoughts on conceptualizing perceived service quality: a hierarchical approach, *Journal of Marketing*, 65, 34 –49.
- [14] Capgemini, & Efma (2013). *World Retail Banking Report*.
- [15] Cardozo, R. N. (1965). An Experimental Study of Consumer Effort, Expectation and Satisfaction, *Journal of Marketing Research*, 2 (August), 244-249.

Contact the author for the full list of references.

Development and exploitation of relational resources in IT Outsourcing

Paolo Popoli, paolo.popoli@uniparthenope.it
Parthenope University of Naples, Italy – SGBED Member

Development and Exploitation of Relational Resources in IT Outsourcing

Abstract

The relational resources represent key assets for outsourcing success. Achieving full potential in the development and exploitation of relational resources in outsourcing can be understood as occurring in two closely intertwined phases: i. during the choice of the provider; ii. through the governance of the relation that develops over the execution of the contract. The current paper aims to provide conceptual insights into these two phases, as they apply to the particular area of companies' IT outsourcing. A first objective is to illustrate the role of relational resources in determining the ultimate degree of success in IT outsourcing and to observe its potential as an "instrument to address risk". A second objective is to outline managerial criteria for correct choice of the IT provider and for appropriate direction of client-vendor relations over the course of the resulting contract execution.

Introduction

Since the late 1980s the outsourcing of IT services has seen enormous growth (Beasley et al., 2009) and remarkable change in objectives, content and forms (Popoli, 2011). Initially, the externalization of IT activities and functions was primarily tactical in character. The primary aim was to obtain cost savings (outsourcing *for cost saving*), and secondly to keep abreast of technological evolution and the development of competencies that individual companies could not resolve alone (Quinn and Hilmer, 1994). Given these aims, companies also developed the first practices of "offshoring" (Mol, van Tulder and Beije, 2005; Jilovec, 2005). Such international outsourcing was primarily intended to exploit cost differentials, particularly with respect to emerging nations gathering the first yields from investment in technological knowledge (India, the Philippines, Brazil, Ireland, etc.).

Subsequently IT outsourcing became a strategic choice (Accabi and Lopez, 1995; Hinterhuber and Stuehec, 1996; Quinn and Hilmer, 1994). IT structures were increasingly required to render management processes not only more efficient and economical, but also more innovative and flexible for strategic purposes. IT structures became more critical in the implementation of business logic, capable of conditioning the effectiveness and efficiency of processes for creation of company value (outsourcing for "value creation"). IT implementation was no longer simply a factor in the support of the value chain. Thus we now speak of "strategic IT outsourcing" to indicate the strategic aspect of outsourced activities, and "tactical IT outsourcing" to indicate the "commodities" of IT functions and activities.

The changes in objectives and aims for IT outsourcing brought about parallel changes in the relationships developed between client and vendor. The paradigm shifted from *transaction-based* outsourcing to *relationship-based* or *partnership-based* outsourcing (Lee, 2001). This led to the adoption of new systems of governance, control and coordination. Relations were no longer centered exclusively on contracts alone, which became insufficient to regulate relations that had become much more complex. The new systems involved relational governance, governance through organizational processes and structures, and governances based on systems of risk-reward (Behrens, 2006). This evolution in governance systems became necessary in all IT outsourcing where the primary or parallel aim with respect to cost saving was the generation of new common knowledge, founded on the exchange and sharing of knowledge.

This paper aims to discuss the centrality of relational resources in IT outsourcing, particularly the practices for externalization of functions or internal processes which are closely related to the core business (strategic IT outsourcing). In these cases the need for partnership is very high, since the success of outsourcing in these situations is based on the sharing and exchange of knowledge.

Many studies on outsourcing focus on why, how and what firms determine to outsource, but few studies have examined relational resources in terms of risk management. The value of the current paper lies in two areas: i) it examines the use of relational resources as an instrument to address the risks of IT outsourcing; ii) it identifies results that can be expected from the adoption of appropriate criteria for provider selection and from systems for governance of relations that go beyond simple contract control.

The next section of the paper analyses the theoretical frameworks that focus on social and behavioral problems in business-exchange relations, from which we identify the importance of relational resources in company management. Sections 3 and 4 deal with the paper's central theme: the consideration of relational resources as an "instrument to address risk", and the proposal of conceptual insights on managerial criteria for the correct choice of the IT provider and the appropriate direction of client-vendor relations over the course of the resulting contract execution. In particular, our insights concern broadening the evaluation and choice of potential providers from the traditional "subjective requisites" to now include "relational requisites". Finally, in Section 5 we identify the conditions that can determine whether the outsourcing contract serves as an "instrument to address risks" or "generators of risks". The concluding section of the paper indicates further research directions.

Theoretical frameworks

Scholars have applied various theories that address the relational aspects of client-vendor exchange relationships. These have often been applied in studies on outsourcing, in attempts to better understand the decisive factors for the potential success of outsourcing operations. The principle theories applied have been "agency theory" and "relational exchange theory", both of which concentrate on the specific issue of relational resources.

Agency theory (Williamson, 1985, 1986; Eisenhardt, 1989) analyzes the relations of business exchange in terms of two main factors: i) information asymmetry, where the actor delegating the execution of an activity (the principle) is in a weak situation with respect to the actor being delegated to carry out the activity (the agent); b) ii) risks of opportunistic behavior, through which the agent could attempt to exploit the information asymmetry in his favor. The occurrence of these factors raise a series of potential problems in the agency relationship, since the principle is not always able to control the behavior of the service provider and it is in fact very costly to determine what the agent is doing (Aris et al., 2008). In addition, the contract is defined under the limits of available information and understanding (bounded reality) and thus cannot cover all contingencies and future behaviors (Das Aundhe and Mathew, 2009). Studies have demonstrated that the most common opportunistic behaviors on the part of vendors are shirking, poaching and renegotiation (Aron and Liu, 2005). Such behaviors are based on information asymmetry in favor of the vendor and the impossibility for the principle to control the exchange. Shirking consists of deliberate underperformance on the part of the service provider, while still demanding payment as if the tasks were completed according to terms. Poaching is the attempt to achieve extra revenue by misusing the client's critical business data. Renegotiation is the request by the service provider for greater payment than appropriate: the provider outsmarts the client, opportunistically exploiting his much greater knowledge of IT services. Hence the focus of agency theory is on how to define the most efficient contract possible to govern the agency relationship, which would permit the principle to have the maximum possible control over what the provider does in terms of quality of services, and at the same time permit the agent to satisfy the principle through achievement of his specific objectives (Logan, 2000).

Relational exchange theory, or RET, was introduced by McNeal (1980). This conceptual approach focuses on the *relational norms* created in exchange relations, which constitute the base elements of efficiency in contract governance between the client and vendor. Relational norms are specific behaviors that subjects in transactions assume, to identify, maintain and develop relations under conditions of present and future equilibrium, even during the inevitable situations of contractual insufficiency. The specific relational norms of interest are: flexibility, information exchange and solidarity (Gottschalk and Solli-Saether, 2006). The role of these norms is to complement and strengthen the contractual norms, which cannot alone govern the unforeseeable future contingencies that could negatively influence the relationship (Goles and Chin, 2002).

RET concepts are based in social theories, most specifically on the further development of "social exchange theory" (SET) as originally introduced by Homans in 1958. Social exchange theory identified the existence of social and behavioral dimensions in relations between business subjects, in addition to the dimension of pure economic exchange. SET begins from the premise that the aim of the two actors in creating a voluntary exchange relationship of is to obtain benefits that are clearly greater than the related costs. However SET illustrates that such relationships are not limited to mere economic exchange and that they also contain elements of social exchange, such as trust, communication, knowledge sharing, cooperation, and sharing of both risks and benefits (Yanhong, 2011). The actors create such exchange

relations when in examining the potential behaviors of their counterpart they perceive possibilities to achieve common benefits (Thibaut and Kelley, 1959; Homans, 1961; Emerson, 1972).

In the subsequent sections of the paper we address three central issues in IT outsourcing, in the light of the theories summarized above: i) selection of the provider; ii) contract management, and iii) ongoing management. RET is particularly related to the stage of selecting the most appropriate provider, providing assistance in resolving the problems of knowing the provider in terms of capacity to adopt relational norms (Joshi and Stump, 1999; Gottschalk and Solli-Saether, 2005). Agency theory is firstly relevant to the stage of contract management, meaning the design and management of the contract that governs the relationship. In particular it supports the design of contract elements that favor the creation and maintenance of a climate of reciprocal trust, and strengthen the contract through the addition of systems for governance of the relationship. Secondly, agency theory is also relevant to stage of monitoring the relationship during contract execution. In this stage it assists in defining the appropriate means for maintenance of long and short-term equilibrium between the needs of the two parties: on the client side, the need for guarantees of high levels of service; on the vendor side, the need for agreement that the client's objectives have been satisfied in full (Eisenhardt, 1989; Logan, 2000; Poppo and Zenger, 2002).

Relational resources as an instrument for addressing risks

In understanding the value of relational resources in IT outsourcing, a first necessary consideration is that the relational resources required depend above all on the type of outsourcing intended, particularly on the externalized items and the aims that the client intends to pursue (Nam et al., 1996; Kishore et al., 2003). An important distinction is thus made between tactical or operational outsourcing and strategic outsourcing, which indirectly signify outsourcing “*for cost savings*” and outsourcing “*for value creation*”. It is clearly evident that as the strategic content of the relationship grows there is also a growing need to govern the relationship on a partnership basis.

Thus if the object of externalization is a strategically “non-critical” activity or process, the relation between client and provider can be classified as a lower level of collaboration and partnership. The expected performance is predefined in the contract and can easily be measured along defined parameters. The subsequent stage of managing the relationship consists primarily of “control” that the performance actually provided respects the technical and performance terms identified in the contract. The situation is the opposite where the objects of externalization are activities, functions or processes with strong impact on firm business. In this case the client expects to receive contributions from the provider that increment the firm's capacities in innovation and value-creation. Such needs will best be satisfied through a *partnership-based* approach that inserts processes for the generation of new, shared knowledge (*knowledge development*).

Given these premises, in our opinion the value of relational resources should be reconsidered in the perspective of risk management, and for this aim we consider it useful to first of all to recall that the process of IT outsourcing can be subdivided in elementary stages, as follows:

1. Evaluation & decision to outsource and what to outsource;
2. Definition of objectives;
3. Choice of provider;
4. Negotiation of terms and conditions; service-level agreement, stipulation of contract;
5. Managing relations;
6. Monitoring and evaluation of results.

Each one of these steps implies the assumption of choices on the part of the firm. Each entails risk factors that can determine lack of success in the outsourcing, to greater or lesser extent. As a whole, the series of steps requires specific managerial competencies capable of identifying what strategic, organizational and economic profiles are concerned in the outsourcing choice.

The six steps can be synthesized under three macro-stages, corresponding to three distinct but closely interdependent moments in the governance and control of relations:

Formulating the choice (governance):

1. Evaluation & decision to outsource and what to outsource

2. Definition of objectives

Implementing the choice (ex ante management):

3. Choice of provider

4. Negotiation of terms and conditions; service-level agreement, stipulation of contract

Managing the relationship (ongoing management):

5. Managing relations

6. Monitoring and evaluation of results

The identification of these macro-stages permits better observation of the outsourcing process for risk management. It creates a link between relation resources and some of the risks through a reasoning process. If we exclude the initial risks related to erroneous externalization of an item that should not have been externalized, then the remaining risks in IT outsourcing are situated in the two macro-stages of *implementing the choice* and the third of *managing the relationship*, meaning in the stages where relational resources can play a role. In fact the major risks in outsourcing are identified in a well-known list produced by Berthélemy (2003), developed through empirical examination of approximately 100 cases of unsuccessful outsourcing in European and North American firms, as follows:

1. Outsourcing activities that should not be outsourced;
2. Selecting the wrong vendor;
3. Writing a poor contract;
4. Overlooking personnel issues;
5. Losing control over the outsourced activity;
6. Overlooking the hidden costs of outsourcing;
7. Failing to plan an exit strategy.

These “seven deadly sins of outsourcing”, to use Berthélemy’s term, can be associated with specific moments in the IT outsourcing. In particular, given our schema of maxi-stages, the associations are: Formulating the choice: Error 1; Implementing the choice: Errors 2, 3, 4, 7; Managing the relationship: Errors 4, 5, 6.

From all the above it becomes evident that the majority of risks in outsourcing can be addressed through greater relational resources, through which to evolve the client-vendor relationship towards a partnership relation, beginning with the moment of the selection and choice of a provider. It is from this observation that we derive our conceptual framework of considering relational resources as an instrument for risk management. Our thesis is that many of the risks in outsourcing can be minimized through: a) selection of a provider capable of developing a partnership relationship that meets defined conditions; b) structuring the partnership relationship through the adoption of systems of governance that are not only embedded in the contract, but that also provide formal and informal mechanisms of coordination and strategic and organizational integration between the client and vendor.

The choice of a provider

The choice of a provider is usually identified as one of the most critical moments in the IT outsourcing. Various authors have advanced lists of criteria to use in the process of choosing the provider. These tend to be articulated differently: i) for different market segments of providers (Kamanth and Liker, 1994; Wind and Cardozo, 1974); ii) according to the strategic relevance of the object for outsourcing and the risk level in the relationship (Kraljic, 1983), and iii) according to the type of client-provider relationship intended (operative versus strategic; short versus medium-long term; transactional versus relational).

The variables proposed for use in the selection process refer to “subjective requisites” demanded of the potential provider, such as: business-financial solidity; specific competencies and technologies of IT infrastructure; a certain portfolio and prices of services, including certain qualities or degrees of innovation; experience in the sector, and reputation in the market in (reliability, security, transparency, etc.).

The emphasis on these subjective requisites for the business practice of the provider is revealed in two empirical studies identifying the criteria most frequently actually applied by firms in the choice of vendors for IT outsourcing. An

investigation by the Cutter Consortium (2001) proceeded by interviewing the managers of “outsourced” firms that had engaged in outsourcing relationships. Interestingly, according to the manager’s reports, “they selected the appropriate vendor only 41% of the time”. Tab. 1 provides indicates the average frequency with which the client firms had applied specific criteria in the selection of their provider.

TABLE 1: CRITERIA APPLIED IN PROVIDER SELECTION (CUTTER CONSORTIUM, 2001)

Technological capacity	48%
Previous working relationships with the client	41%
Proven experience	37%
Reputation	36%
Price	30%
Stability of the provider business	28%
Understanding of the client firm’s needs	24%
Recommendation by a consultant	23%
Propensity and commitment to quality	21%
Considerations concerning times for service provision	19%
Provider’s knowledge of the client firm’s business sector	18%
Localization	18%

A second study by Aris et al. (2008) produced similar results, again indicating that client firms tend to focus on subjective requisites in the choice of the potential provider, as shown in Tab. 2.

TABLE 2: FACTORS IN SELECTION OF SERVICE PROVIDER (ARIS ET AL. 2008)

Factors	Ref
Reputation and Performance	17
Experience	54
Financial stability	54,61
Personnel assigned	6
Access and ability to adopt to latest technology	6
Practices of standard, policies and procedure	12,21
Practices of security	12,21
Responsibility towards disaster recovery plan	53
Usage of third party	25

From “subjective” requisites to “relational” requisites

The two empirical investigations reported above, as well as many other studies in the literature, show that client firms’ evaluation of potential providers tends to deal exclusively with subjective variables. The firms appear to ignore all the variables that express the true potential of the provider to achieve full partnership-based outsourcing, meaning full strategic and organizational integration with the client firm. Even when the client firm examines the providers’ strategies, management capacities, or potentials for development of future business, it appears that the evaluations lack or are weak in considering a series of variables that refer to: i) the capacities for integration of the structures, procedures and cultures of the two subjects entering the relationship; ii) the compatibility of the objectives pursued by the two parties; iii) the potentials for development of a true strategic partnership.

The subjective requisites typically applied in the analysis of providers are clearly important, but our belief is that alongside these there should also be consideration of the “relational requisites” for the provider. We identify two questions concerning governance and management of risk in outsourcing as being particularly important:

1. The questions as to whether and how the respective value chains of the two parties in the relationship are integrated, and in particular whether the client firm represents a significant, logical client of the provider firm;

2. The question as to whether the provider demonstrates true capacity and availability to develop a partnership relationship with the client firm – in particular if the provider’s approach to the market is aimed at the simple “stipulation of a contract” or if it has mid-long term aims for the construction of partnership-type relationships involving cooperation and trust.

Concerning the first question, one of the most important conditions for the outsourcing relationship to express its full potentials and reduce risks of failure is the *potential for integration of the two value chains*. The activities, processes and functions entrusted to the provider should be consistent with and enter within the provider’s value chain, and thus in its normal business. It is only when the object of outsourcing belongs to the core business of the provider that there can be adequate provision for the client-provider relationship to attain a win-win logic, with advantages and benefits accruing to both parties in the relationship.

One of the crucial questions for the client firm should be if the activity, process or function to be externalized pertains to the core business of the potential provider, or if it is simply something the provider is able to do given its production technologies and market strategies. If the object outsourced matches the provider portfolio then the provider can draw on experience and technological, organizational and management knowledge that has already been consolidated through its operations. The provider can exploit cost economies linked to a higher degree of standardization in the product or service being provided. In this case the provider’s activity will take on the character of the “one product for many” approach typical of competitive strategies based on cost leadership. Such strategies are typical of contractual relations based on commercial exchange (transactional approach), where the object is an activity, function or service that can provide only marginal effects in the client’s processes of value creation. In this case, the client will perceive all the economic advantages that derive from exploiting the investments already made by the provider, obtaining higher levels of performance and lower costs compared to what could be achieved by internalization. In summary, the client will obtain advantages from the provider’s competencies and resources, to apply in improvement or innovation in its business.

If the product or service requested from the provider is outside its historic business then new investments will be necessary in technology, human resources and professional skills. The provider must evaluate the investments demanded according to the usual business principles and techniques (Williamson, 1986, 1996; Stuckey and White, 1993; Bensaou, 1999). Thus the provider must first identify and then evaluate the resources of new technologies, processes or products, new professional skills and potential organizational changes, with a view to consolidating and completing the current elements of its business.

Finally, integrating the two value chains also implies the harmonization and coordination of the organizational structure, operational procedures and routines, and the values and cultures underlying the business exercises. It also implies “harmonizing” the leading people belonging to the two organizations. Key company figures will be called to integrate with each other in the organizational mechanisms for interface, necessary for the correct management of relations in whatever type of outsourcing, for its entire duration. In this regard, Dyer and Singh (1998) assert that the possibilities for allied partners to generate “relational advantages” through sharing of complementary strategic resources increases with the greater compatibility in their organizational systems, processes and culture.

Concerning the second question, a frequent reason for failure to achieve cost savings (given equal quality of performance under outsourcing or insourcing) or of unsatisfactory levels of performance obtained through the provider market (given a predefined cost) is found in the *basic strategic framework of the provider chosen*, and thus the market strategy adopted. This type of failure can occur in two ways.

First, the provider could equally adopt either a “contract orientation” (typical of *transactional marketing*) or a “renewal orientation” (typical of *relational marketing*). In the first case, the provider is primarily motivated by the aim of arriving at the stipulation of an outsourcing contract, which will also permit pursuance of his own objects. In the second case, the provider’s relational propensity actually serves as an important asset to the client firm for the protection of his objectives in the outsourcing choice.

Second, the provider’s entrepreneurial offer could equally be characterized by a strategy taking a “*marketing oriented*” approach, centered on the satisfaction of needs as specifically stated by the client, or by a “*product oriented*” approach. In the second case, the objective of the provider basically to sell or impose his product or service, achieved under a logic of standardization. In the successive structuring and execution of the relationship, the provider will then demonstrate little availability to differentiate and flexibility in the product for the purposes of the contract objectives.

We can conceive of a hypothetical example where the provider operates on a vast scale with a logic of standardization in the offer. In these circumstances, it is highly probable that the provider will result in unsatisfactory terms of differentiation and flexibility in the offer, which the client will often request.

In conclusion, the analysis of relational needs is clearly much more complex than the analysis of subjective requisites, where the outsourcing firm can resort to quantitative measurement and from this develop comparative ratings of potential providers. For identification and evaluation of the relational requisites there is no analogous possibility. This means the evaluation of relational requisites can only be conducted at the qualitative level, making it a critically challenging factor in the final choice of the vendor.

Contract management and relational governance

A second area where relational resources reveal their critical importance is in the stage of structuring the client-vendor relationship and creating the organizational conditions to control the execution of the contract on the part of the provider. Again in this area, the partnership-based approach requires the identification of organizational solutions for the client-vendor interface that will render the cooperative intent operational and concrete, effectively activating the search for new knowledge and innovation.

Since in strategic outsourcing the aim is co-generation of new shared knowledge, our observation is that it will not be sufficient to only define the contractual rules for the coordination of the two parties' actions. Instead it is necessary to create the organizational conditions that can ease the sharing of knowledge and the integration of the client and provider firms' value chains.

Here, the most important implication in terms of structuring the outsourcing relationship is the need to go beyond the purely contractual terrain and search for forms of regulation that revolve around a shared search for advantages and development in the respective businesses. In other terms, the shift from transactional to relational logic renders the area of *contract engineering* insufficient, at times unsatisfactory or even counterproductive, to obtain long-term results in innovation and creation of new knowledge. In this regard, McIvor (2005) shows how the "relational contracting" requires much more than the stipulation of a formal contract. It includes the activation of "social mechanisms" to permit the development of information exchanges, flexible interaction and joint resolution of the problems that arise from time to time in the relationship. Similarly, Han, Lee and Seo (2007: p.31) state that "the interactions between the clients and their service providers often go beyond rules, agreements and exceptions; they also depend on intangible factors that cannot be easily incorporated into a contract".

The legal instrument of the "contract" thus cannot be considered as the only instrument to apply in striving to meet the needs for coordination and integration between the two parties (Leimeister, 2010; Behrens, 2006). The initial regulation of the exchanges within relationships is only a first, although necessary level in their structuring. The relationship must also find other mechanisms of interaction and coordination that permit the possibility of long-term evolution of the partnership.

In taking a relational approach, the organizational tools for management of the relationship change. The instruments are no longer based simply on contractual norms, but now extend to formal and informal mechanisms of coordination that ease the common activity, both in its planning and implementation. The development of the new knowledge and innovation that characterize strategic IT outsourcing cannot be governed by contractual regulation alone (norms, clauses and detailed technical specifications), but instead require further elements: i) the true desire for interaction; ii) the possibility for both parties to develop their businesses through the relationship; iii) strategic and organizational conditions for the integration and coordination of the respective businesses.

It is thus indispensable to come to a new logic in establishing the relationship between the interacting parties, including in part through a different conception of the contract itself, the source instrument in the regulation of the relationship. The contract must be understood as an instrument for interaction in the partnership, and not simply as a tool to regulate the commercial instruction. In the next section we illustrate how in strategic IT outsourcing, the contract must be structured in such a way as to be an instrument for flexibility, and not of rigidity.

The contract as "risk factor"

The contract is usually seen as an “tool for risk control” in outsourcing, or rather as an set of rules and conditions that shelter the client firm from risks of opportunistic behavior and distancing of the provider’s performance from the client’s expectations or from what is predetermined by the stipulated terms (Gellings, 2007; Leimeister, 2010). There are different types of contracts in function of the objectives and aim of the IT outsourcing relationship, oscillating between the two opposing characteristics of *rigidity* and *flexibility*. Contracts are also termed as “tight” or “loose” (Grover and Teng, 1993). A tight contract leaves low margins of maneuver to the two parties. A loose contract is less formalized and rigid, intended to structure conditions for greater flexibility and adaptability with potential changes in the internal or external conditions that can affect the contract objectives.

A tight contract intuitively represents a higher degree or risk of inadequacy in meeting the changing conditions surrounding the activity defined under the contract. This will result in needs to frequently redefine the terms of the relationship, generating one of the many types of “hidden costs”.

However it is also true that a contract providing numerous legal norms and the definitions of the contractual terms (performance objectives, criteria and parameters for control, sanctions in case of inadequacy, etc.) offers means of “defense” and “control” for the client firm in regards to the provider’s operations. This is especially true where there is strong information asymmetry between the two parties, and thus with potential opportunistic behavior.

From this discussion we observe that the type of contract adopted must be closely linked to the type of outsourcing, in terms its aim and objectives. For strategic IT outsourcing the contract must function in the creation of a client-vendor partnership, and thus take a “loose” form, leaving margins for the provider’s action and reciprocal adaptation between client and vendor. If not, the contract is actually transformed from a “tool for risk control” to a “risk factor”. In fact it very often happens that in the desire to exercise greater control and defend against potential opportunistic provider behaviors, the client firm specifies the contract to the greatest extent possible, ultimately rendering it excessively rigid and blocking the development of a true partnership. On the contrary, a “loose” contract offers advantages of flexibility, making it possible to adapt to conditions that cannot be perfectly foreseen *ex ante*, and thus minimizing risks of inadequacy. In addition, flexibility in the contract permits the client to exploit the innovative capacity of his provider, since the provider is freer to express his competencies and specializations through proposal of solutions that were unknown and unforeseeable at the moment of stipulating the contract.

For this reason, in strategic IT outsourcing the contract must from the outset provide for procedures of *change management*. It must foresee what mechanisms and means will permit proceeding, in successive moments, to the revision of the outsourcing and its redirection towards characteristics of greater adequacy and coherence with respect to changing internal and external conditions, and in consideration of new business needs for the client. According to Barthélemy (2001), this doesn’t imply that the contractual clauses are “vague” or “indeterminate”. Instead it means conceiving and using the set of rules and conditions agreed between client and vendor in a flexible manner.

In strategic IT outsourcing, the “tight” contract can also become a “risk factor” for another important reason, arising from the means, parameters and intensity through which the client firm controls the provider. In our opinion, a pressing and bureaucratic type of control to achieve rigid respect of the contract’s predefined and codified norms and procedures can result as counterproductive. It can produce effects of “flight from control”, or “subjection to control”, where the provider shows greater preoccupation with satisfying the control criteria and successive levels rather than with responding to the client’s true needs through the achievement of the defined objectives.

Contrarily, the role of control systems should be to serve in the achievement of the fixed objectives, meaning that they should be oriented towards control of the results obtained. Outcomes should in fact be analyzed at the double level of analyzing the *results/objectives* and *results/resources* relationships. Rather than structure a system to control the providers’ behavior under a hierarchical type of relationship, the client firms must consider the provider as an actor in a partnership relationship. The relationship is founded not only the sharing of objectives, but also on equal governance of the relationship itself. This includes the governance of the moments of controlling the relationship results and the provision of corrective interventions as necessary to realign the relationship in the desired direction.

Conclusion and future developments

This paper focuses on strategic IT outsourcing, meaning the externalization of functions, activities or processes that are closely tied to the company's core business and thus have high strategic value and strong impact on the creation of value. In this type of outsourcing, the relationship that develops between the client and vendor is best understood under a partnership-based or relational-based paradigm, where relational resources are seen as playing a crucial role. The paper contributes to existing research and literature on IT outsourcing, providing conceptual insights on the role of relational resources and their impact on mechanisms of governance in the client-vendor relationship.

In particular, we have analyzed relational resources from the view of risk management, and as an instrument to address risk. We have shown that almost all the risks generated by strategic IT outsourcing (except for those concerning erroneous decisions on if and what to externalize) are concentrated in three stages of the process: in choosing the provider, in contract management and in the ongoing management of the relationship. In these stages, relational resources are crucial to success in any outsourcing intended "for value creation".

Beginning from this conceptual framework, we focused consideration firstly on the choice of the provider, showing how traditional evaluation of the "subjective requisites" for potential providers is insufficient to ensure the development of a relationship of client-vendor partnership. We thus advanced the idea that in addition to the subjective requisites for the potential provider it is also necessary to identify and evaluate "relational requisites", which we consider as preconditions for evolution of a win-win relationship.

In the second place, we have illustrated how the contract is generally not a sufficient instrument for the evolution of a true partnership. Alongside the "contractual norms" there is also a necessity for "relational norms". These permit governance of a series of intangible factors that are essential in a mid to long term relationship of partnership: mutual trust, mutual respect, flexibility, information exchange and solidarity. In addition, not only is the contract likely to be insufficient as the sole instrument for regulation between the parties, it could actually revert from its intended role as the "instrument to address risk" to a "factor generating risks" in IT outsourcing. This happens when the contract is primarily an attempt to define a balance of terms and conditions that would protect the two parties from negative events or potential conflicts. Under this approach, the contract serves only as a rigid instrument for regulation of the parties' relationship, and fails to provide the characteristics of flexibility necessary in evolution of a true partnership. Thus the contractual governance of the relationship must be structured in a manner that guarantees the flexibility called for under conditions of a changing environment and the client's changing business needs.

The current paper develops these considerations in purely conceptual terms, providing deeper understanding of the role of relational resources in IT outsourcing. Our considerations lead above all to insights that provide support to the company's in its tasks of choosing an IT provider and in defining the governance mechanisms for the relationship. Further research at both the conceptual and empirical levels could provide additional constructive contributions. At the conceptual level, it would be useful to analyze the different roles of relational resources in the various typologies of IT outsourcing (business process outsourcing, application outsourcing, infrastructure technology outsourcing). Research at the empirical level could investigate if and how the choice of firms' providers in IT outsourcing takes account of "relational requisites" for the potential provider: in particular what variables are actually used in the company processes of selection and choice. A second useful line of empirical research would be to investigate what formal and informal mechanisms of governance are used in the subsequent stages: of contract management and ongoing management.

References

- [1] Aris, S.R.H.S., Arshad, H. & Mohamed, A. (2008). Conceptual framework on risk management in IT outsourcing projects. *Information Science & Applications*, 4(5), 816-831.
- [2] Beasley, M., Bradford, M. & Dehning, B. (2009). The value impact of strategic intent on firms engaged in information systems outsourcing. *International Journal of Accounting Information Systems*, 10, 79-96.
- [3] Behrens, S. (2006). Governance and information systems outsourcing: a contingency perspective, in Lehner, F., Nosekabel, H. & Kleinschmidt, P. (Eds.), *Multikonferenz Wirtschaftsinformatik*, 101-116. Passau.
- [4] Barthélemy, J. (2003). The seven deadly sins of outsourcing. *Academy of Management Executive*, 17(2).
- [5] Das Aundhe, M. & Mathew, S.K. (2009). Risks in offshore IT outsourcing: A service provider perspective. *European Management Journal*, 27, 418-428.
- [6] Dyer, J.K., & Singh, H. (1998). The relational view: cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, 23(4).
- [7] Goles, T. & Chin, W.W. (2002). Relational Exchange theory and IS outsourcing: developing a scale to measure relationship factors, in Hirschleim, R., Heinzl, A. & Dibbern, J. (Eds.), *Information Systems Outsourcing*, 221-250. Berlin: Springer.
- [8] Gottschalk, P. & Solli-Saether, H. (2006). Maturity model for IT outsourcing relationships. *Industrial Management & Data Systems*, 106(2), 200-212.
- [9] Joshi, A.W. & Stump, R.L. (1999). Determinants of commitment and opportunism: integrating and extending insights from Transaction Cost Analysis and Relational Exchange Theory. *Canadian Journal of Administrative Sciences*, 16(4), 334-352.
- [10] Kishore, R., Rao, H.R., Nam, K., Rajagopalan, S. & Chaudhury, A. (2003). A relationship perspective on IT outsourcing. *Communication of the Association for Computing Machinery*, 46(12), 87-92.
- [11] Lee, J.N. (2001). The impact of knowledge sharing, organizational capability and partnership quality in IS outsourcing success. *Information & Management*, 38, 323-335.
- [12] McIvor, R.T. (2005). *The outsourcing process: strategies for evaluation and management*. Cambridge: Cambridge University Press.
- [13] Popoli, P. (2011). IT services offshoring: opportunities and critical factors from a strategic perspective, in *Information Systems and New Applications in the Service Sector: Models and Methods*, 1(3), 240-258. Pennsylvania, USA: IGI Global, Hershey.
- [14] Poppo, L. & Zenger, T. (2002). Do formal contracts and relational governance function as substitutes or complements?. *Strategic Management Journal*, 23, 707-725.
- [15] Yanhong, W. (2011). A framework of business process outsourcing relationship evolution model. *Management Science and Industrial Engineering, 2011 International Conference on*, 995-999.

Note: Contact author for the full list of references.

Digital Marketing, Customization, Social Media, E-commerce

Sustainability and SMEs: the case of CSR4UTOOL web application

*Laura Corazza, laura.corazza@unito.it, laura.corazza@laurea.fi
Università degli Studi di Torino, Italy
Laurea University of Applied Science Espoo, Finland*

Sustainability and SMEs: the case of CSR4UTOOL web application

Abstract

Several business administration scholars recognized the presence of ethical roots at the base of the actual crisis both in large and small companies. In addition, Small and Medium-sized enterprises (SMEs) positively represent the backbone of the European economic system and, negatively, they represent the 64% of all European environmental pollution, generated by an unethical conduct (Eurobarometer, 2012).

The purpose of this paper is to understand and explain if SMEs are able to change their management practices with more sustainable practices using a self-assessment and learning tool. A literature analysis of how SMEs address sustainability issues will be discussed especially, the need of tools for SMEs. The focus of the paper relies on the presentation of an experimental and innovative web-based tool for interactive assessment of CSR for small entrepreneurs, called CSR4UTOOL. The theoretical model at the base of the algorithm is the Carroll's Pyramid of Responsibilities (1979).

Introduction

There are 23 million small and medium-sized enterprises (SMEs following the European definition) in the European Union, representing 99% of all businesses and providing around 90 million jobs in the single market. SMEs contribute to the European economy generating the 57.6% of the entire value added and, in that sense, they are considered the backbone of the European economic system. This means that the contribution given by small entrepreneurs is essential for pursuing the goals of "Europe 2020," that is the EU's strategy for a smart, sustainable and inclusive growth of Member States (Eurobarometer, 2012). Despite the term "small", Morsing and Perrini (2009) noted 'that the "smallness" of the individual SME is not proportional to the collective "grandness" of SMEs as a whole. As a matter of fact, at the same time, SMEs are responsible for roughly 64% of the total European industrial pollution because of the existent difficulties in complying with environmental legislation and, in the meanwhile, 24% of them actively engage in actions to reduce their environmental impact, mainly the reduction of energy consumption and the adoption of environmental management systems (Eurobarometer, 2012). In addition, other data on social impacts of SMEs are impressive. For instance, according to a research of Link Lab 2014, the number of Italians that committed suicide for a motivation linked to economic reasons has grown up of +70% in relation to 2012 (149 people in 2013 and 89 in 2012). The most impressive data is that nearly half part of these people were small and medium-sized entrepreneurs and they have committed suicide declaring a reason related to the economic crisis.

In order to boost the economic competitiveness of SMEs, the European Commission has implemented an action plan namely "Small Business Act – Think Small First" (SEC/2008/2101) which aims to put the needs of the SMEs at the heart of European policy. The Small Business Act provides ten specific principles and line of actions as: environment which rewards enterprise; second chance for honest entrepreneurs who face bankruptcy; the design rules according to 'think small first'; public administration response to SME needs; adapt public policy and tenders to SME needs; access to finance by SMEs; opportunities from the single market; skills and innovation; turn entrepreneurial challenges into opportunities; benefit from the growth in markets.

Moreover, in 2011, the European Commission have stressed the important role of SMEs also for the sustainable development of Europe. In particular, into the document called "A renewed EU strategy 2011-14 for Corporate Social Responsibility", it is stated that, CSR is "*the responsibility of enterprises for their impacts on society*" and this logic implies to foster the adoption of processes to integrate social, environmental, ethical, human rights and consumer concerns into business operations. The principal element of innovation relies on the introduction of a strategic view of CSR in close collaboration with their stakeholders, with the aim of: (i) maximizing the creation of shared value for their owners/shareholders and for their other stakeholders and society at large; and (ii) identifying, preventing and mitigating their possible adverse impacts. The document addresses

several crucial issues that SMEs face in applying sustainability practices as: their limited resources; the pressure exerted by the presence of administrative burdens; the role and importance of intermediary organizations; and, the tendency of communicating social and environmental information informally and on a voluntary basis.

Recently in April 2014, the European Parliament has promulgated a directive (Communication 78/660/EEC and 83/349/EEC) that will be successively approved in September 2014, which impose communication of social and environmental information duties to large companies and listed group. Following these communications, SMEs are not directly involved but, indirectly, if a large company or a listed group will be called to comply or explain data i.e. on their supply chain, then, they need tool to collect and manage these data. Several ICT technologies are burgeoning, but the main limit of these technologies, that is also the limit of the general CSR approach, is that they have been created for large companies (Tilley, 2000). In the near future, small entrepreneurs that work in the B2B could receive auditor on sustainability issues by their “main customers” that imply to provide a pursuit in providing the information requested.

In the last decade, academia and scholars have started to discover and demonstrate the peculiarities of SMEs that act in a social and responsible manner and, for that reason, the paper starts with a revision of the state of the art of the literature. A literature analysis of how SMEs address sustainability issues will be discussed, especially, the need of tools for SMEs. The purpose of this paper is to understand and explain if SMEs are able to change their management practices with more sustainable practices using a self-assessment and learning tool. The focus of the paper relies on the presentation of an experimental and innovative web-based tool for interactive assessment of CSR for small entrepreneurs, called CSR4UTOOL. The novelty of the web-based tool is the effort of moving away by the mere collection of data, experiencing the user/entrepreneurs into a self-evaluation, and understanding the motivations behind the actions. The paper is classified as a demonstration paper, as the aim is to show the technology prototype that relies on the Carroll’s Pyramid of Responsibilities (1979). In future, entrepreneurs, researchers, practitioners, politicians, large companies and banking sectors will benefit of the results deriving from a massive experiment and diffusion of this technology.

An overview of the studies on sustainable SMEs

The particularity of SMEs in approaching sustainability issues

Scagnelli et al. (2013) have given special attention to SMEs cognizant of their sustainability impact. In general, SMEs have relatively informal organizational structures, often managed by owners or family members. This implies that there is a close correlation between the head of the company, his/her way of manage the business, his/her personal choices, attitudes and moral values (Petts et al., 1999; Surbutts, 2003; Grayson, 2004; Longo et al, 2005; Longenecker et al., 2006; Vives, 2006; Worthington et al., 2006; Jamali et al., 2008; Lange and Fenwick, 2008; Redmond et al., 2008; Hamman et al., 2009; Moore et al., 2009; Nielsen and Thomsen, 2009; Fassin et al., 2011; Schlierer et al., 2012).

The proximity between the owner-manager and his employees relies on personal relation, that are often fluid and informal (Cambra-Fierro et al., 2008; Hamman et al., 2009; Russo and Tencati, 2009; Fassin et al., 2010; Fenwick, 2010; Rivera-Lirio and Muñoz-Torres, 2010; Russo and Perrini, 2010; Cassells and Lewis, 2011). These relationships, built out of intangible components as trust, reputation and legitimacy, represent the lifeblood of an SME and, in the meantime a constraint (Spence, 1999; Graafland et al. 2003; Spence et al., 2004; Courrent and Gundolf, 2009; Revell et al., 2010). Davies and Crane (2010) provide a descriptive theory of how SMEs implement CSR in their business, and they state that one of most used approach is dealing CSR issue through Human Resources management practices. Undoubtedly, the “proximity” is also at the firm-local community level, and therefore, it implies to be involved in community affairs (Longo et al., 2005; Fuller and Tian, 2006; Lawrence et al., 2006; Perrini, 2006; Williamson et al., 2006; Niehm et al., 2008; Fisher et al., 2009; Muller and Kolk, 2009; Russo and Tencati, 2009; Russo and Perrini, 2010; Del Baldo, 2010; Fassin et al., 2011).

Obviously, SMEs face the competitive pressure exerted by the economic environment answering with limited resource, in terms of cash flow, knowledge and human resources. These motivations attenuate the attitude of small entrepreneurs towards investing time and resources on sustainability. Usually disaffected entrepreneurs

tend to perceive CSR as a business cost without benefit and they concentrate their attention on short-term strategic planning (Spence and Rutherford, 2001, 2003; Lepoutre and Heene, 2006; Roberts et al., 2006; Avram and Kuhne, 2008; Chiappetta Jabbour and Puppim-de-Oliveira, 2012). Managers–owners justify social and environmental investment only if there is an economic and competitive feedback deriving from a customer or a project/business (Deniz and Suarez, 2005; Jorgensen and Knudsen, 2006; Williamson et al., 2006; Brammer et al., 2012; Torugsa et al., 2012).

On the cognitive level, it has to be noted that SMEs often misunderstand the meaning of ethical terms like CSR, sustainability reporting, code of conduct and ethical codes and they perceive them as distant, possibly inoperative or counter-productive (Grayson, 2004; Murillo and Lozano, 2006; Fassin, 2008; Rivera-Lirio and Muñoz-Torres, 2010; Baden and Harwood, 2012). On the other side, they prefer a sunken, internal and proactive approach because it stems from voluntary involvement (Matten and Moon, 2004; Fuller and Tian, 2006; Jenkins 2004, 2006, 2009; Lynch-Wood et al., 2009; Del Baldo, 2010).

On the terminological level, Ahmad and Seet (2009) demonstrated that CSR is perceived as honesty, integrity and willingness to admit mistakes and to tell the truth; while Petts et al. (1999) and Fassin (2008) refers to doing the right things; Surbutts (2003) employ the concept of ability to say sorry. Courrent and Gundolf (2009) report that “ethics” has been viewed as a management tool for managing corporate reputation and image. Therefore, Baden and Harwood (2012) provide a discussion on the ambiguity of the term CSR especially in the view of an SME. They stress a need for a better choice of words and suggestions including a focus on the totality of responsible business practice that means to focus on the use of action verbs that reflect the nature of the engagement with the community and environment. This, it is also confirmed by the study of Fenwick (2010) on the CSR in everyday practices and actions. On the contrary, Deniz and Suarez (2005) analysis confirm that some SMEs associate at the term CSR the concept of philanthropic activity. Graafland et al. (2003) refer to expectation and responsiveness towards stakeholders.

Several studies have demonstrated that SMEs adopt different behavior in addressing sustainability. Some of small entrepreneurs believe that they have an inexistent or little impact on the environment (Gadenne et al., 2009); while other tend to adopt a chameleon approach that Unioncamere (2003) classifies as: cohesive, multi-certificate, aware, skeptical and movable. A new body of literature is growing on the issue of CSR within the supply chain, especially in relation to SME behaviour (Jorgensen and Knudsen, 2006; Roberts et al., 2006; Perrini et al., 2008; Baden et al., 2009; Gadenne et al., 2009; Muller and Kolk, 2009; Baden et al., 2011). Moreover, scholars are beginning to study the phenomenon of business networks as a driver for the diffusion of CSR within SMEs (Spence et al., 2003; Moore and Manring, 2009; Battaglia et al., 2010; Fenwick, 2010; Hoivik and Shankar, 2011; Jamsa et al., 2011).

SMEs, social accounting and disclosure

The adoption of sustainability practices leads managers to observe economic, social and environmental performance as an equilibrium of three inter-connected dimensions (Guthrie and Parker, 1989; Gray, et al., 1995, 1996; Adams, 1999). Scholars agree on the fact that social and environmental accounting practices is not a fertile terrain for SMEs as there is general lack of information on their social responsibility actions (Spence et al., 2003; Lawrence et al., 2006; Lepoutre and Heene, 2006; Parsa and Kouhy, 2007; Fisher et al., 2009; Nielsen and Thomsen, 2009; Fitjar, 2011). An extensive lack of technical knowledge, awareness of benefits and, most of all, high cost of implementation explain why SMEs does not provide a systematic social account Hillary (2000).

While the provision of CSR tools and social reporting guidelines is burgeoning rapidly, there is a general lack of tools dedicated to SMEs that want to adopt CSR disclosure account (i.e. social, environmental or sustainability reports) (Catska et al., 2004; Russo and Perrini, 2010). Enderle (2004) points out that, overall, CSR reporting standards might be inappropriate for small firms because such standards have been developed mainly with large businesses in mind. Besides, from the SMEs perspective, the possible ineffectiveness of informal tools such as codes of conduct and social and ethical standards might be explained by the requirement of a greater investment in terms of time, funds and energy. Furthermore, much more study and work is needed in order to develop appropriate ethical tools capable of connecting new theories to small businesses practice (Tilley, 2000). In general, Baden et al. (2011) which a ‘downstream’ corporate social responsibility activity into the views and actions of SME owner-managers.

Conversely, Parsa and Kouhy (2007) investigate the prevalent view that SMEs are unlikely to report social information due to their financial constraints and the perception that they have very little social conduct on which to

report. On the contrary, they show that SMEs report social information regardless of their financial constraints. For small companies a good reputation is crucial in attracting resource holders and fulfilling their expectations (Sabate and Puente, 2003).

Towards a theory of CSR in SMEs

While Garriga e Melè (2004) have provided a deepen debate on the existent theories that compose the CSR field of study, Spence and Perrini (2010) invoke the need of an emerging complex of theory, tools and mechanisms to contextualize small entrepreneurs' social responsibilities. Exemplifying a bit, Epstein (2007) describes a socially responsible firm those firms in which the usefulness of the firm itself is optimized to the diverse stakeholders and, in the meantime, the possible deleterious effects are minimized. That is to say, the behavior that trying to achieve financial results minimizing negative spillovers and maximizing positive externalities to the environment and society.

Under these lenses, the CSR approach can be represented as a continuum starting from a compliance behavior (reactivism) to ethical and moral commitment that leads to voluntary actions (proactivism). Some authors interpret the small businesses social responsibility as a relatively reactive approach (Uhlener et al., 2004; Ahmad and Seet, 2009; Lepoutre and Heene, 2006; Udayasankar, 2008). Reactivity means the attitude of a small entrepreneur to improve his social behavior under external pressure like external expectation from stakeholders (including public policies) and increasing competition (Uhlener et al., 2004; Williamson et al., 2006; Fitjar, 2011). Other authors explain the interpretation of social responsibilities as social priority, long-term survival factor and the "wanting to give back" to community less than profit oriented motivation (Spence and Rutherford, 2001, 2003). The importance of adopting pragmatic actions is also underlined by Schlierer et al. (2012), including the institutional structure of the national economy but also wider cultural norms and habits regarding economic activity. Cambra-Fierro et al. (2008) found that the behavior of SMEs involved in environmental CSR is expressed as several actions: complying with the reference legislation, adapting the management to the owner and / or managers' value system, and trying to make a profit with the effort. Lozano (2012) gives an in-depth analysis of the voluntary initiative contribution towards CSR, but often SMEs tend to adapt the tools developed for large enterprise to their own needs, even if "SMEs are not little big firms" (Tilley, 2000).

Among these tools are Social and Environmental Management System (SEMS) certifications. SEMS and the related certifications have also been very successful in the SME framework, as demonstrated by (Bouma and Kamp-Roelands, 2000; Jirillo et al., 2003; Miles and Munilla, 2004; Catska, 2004; Catska and Balzarova, 2008a and 2008b; Llach et al., 2013). Recently, Bürgi (2010) has affirmed that among SMEs, the adoption of SEMS is continuously growing as a formal request of a customer and, this adoption influences the approach towards sustainability as demonstrated also by Fatoki and Chiliya (2012) and, empirically by Uhlener et al. (2012). Bürgi (2010), in Spence and Painter-Morland (2010) presents a theoretical model that we can label holistic or liquid approach of CSR in SMEs that unify SEMS, moral value and small business. Even though, they states that there are not enough research in business ethics, regarding SMEs, despite the fact that there are differences between large firms and small and medium size firms beyond the number of employees (Spence and Painter-Morland, 2010; Burgi, 2010). In general, the greater part of the studies on CSR in SMEs have been conducted under the business ethics approach, even though these theoretical models have been developed starting from large companies' perspectives.

The methodology

In order to offer at the reader a perspective of the new technology, it occurs to premise and briefly summarize those relevant insights that have inspired it. Following Spence and Perrini (2010), several elements are important in small entrepreneurial context that deals with sustainability issues:

- There is a generalized lack of codification of CSR actions;
- The role played by small entrepreneurs' personal moral values are fundamental;
- Who conduct or manage is the principal and also the agent of the firm itself;
- SMEs are often involved into project carried out by the community;
- Flexibility and reputation are considered as a source of competitive advantage;

- Human resources are a privileged stakeholder;
 - Exogenous factors like business sector, belonging to a group or network of firms influence the corporate behavior.
- In addition, Spence and Perrini (2010) have invoked the need of new tools for boost CSR in SMEs and the tool that will be presented wants to offer a practical answer to that need.

The rationale

CSR4UTOOL (www.csr4utool.org) is a web-based application especially dedicated to the interactive self-assessment of CSR performances in SMEs. CSR4UTOOL has been developed during the European project LOIEs (Lessons and Options for an Integrated European approach to CSR) financed by the DG Occupation, Social Affairs and Inclusion.

LOIEs was an experimental European project which aims to stimulate dialogue between profit and nonprofit organizations as leverage to identify and test new models of collaboration and interactions in applying CSR concepts. LOIEs involved six companies in twinning and three public institutions in three EU countries (Bulgaria, Italy, Spain), identifying some methods of interaction more effective and efficient in terms of social and managerial value. Synthesizing a bit, in LOIEs several different tools were created and tested, among which a checklist of items on CSR issues was created. This checklist was based on ISO26000 core concepts, around 50 items and the answers followed a Likert-type of scale. The scope of the checklist was to provide a self-assessment on CSR issues at those firms involved in the project and suddenly the checklist was formally included in the official manual of the project. After the administration of the test, several problems arose: (i) the test required a consultant in order to explain the specific terms used to explain sustainability issues; (ii) the test required time and human resources in order to retrieve the information and give the desired answer; (iii) the results were infected by a high percentage of social desirability bias.

On this base, CSR4UTOOL has been developed in order to be:

- Not structured as a survey;
- Free of charges, anonymous and completely available in any time on any devices, enabling the information retrieval without a loss of data;
- Used with or without the help of a consultant;
- Developed as a service, at the end of the test the system provides a conclusive report to the user that contains scores and benchmarking on specific sectors;
- Used to compare the CSR performances of a firm into different strategic areas of interest;
- Easy to understand providing examples of actions, verbs, situations, and most of all, a clear language and an in-time translation;
- Used as a self-evaluation and/or learning tool and for editing a preliminary sustainability report.

The users of CSR4UTOOL are typically the owner or the CEO of the SMEs, also a member of the administrative staff can use the tool, but only if he/she has a complete overview of the firm. After the login phase, in order to personalize the experience, the first step of the algorithm profiles the user evaluating: country; role; juridical status of the firm; profit orientation (in order to provide the correct prospect for the value added determination under IV Directive and also for those SMEs that use only a cash flow statement); dimensions; sector; and, among those not mandatory items there is the presentation of the firm, number of local units and production sites; mission statement. The second and third steps consist in the self-assessment phase based on common items and specific sector supplements (using GRI guidelines) for a total of 56 items that can be skipped, while the fourth step consists in the final evaluation and the user has the possibility to download the final report.

The development levels

The developing phase has taken into account different operational levels: a scientific level, a materiality level and a syntactic level.

The scientific level refers to the need to interpret the data collected into a theoretical framework. As presented in the state of the art, the literature on CSR in SMEs is fertile, but there is a substantial lack of theories to interpret SMEs behaviors. In that sense, the literature demonstrates that small entrepreneurs are also sensitive to the reach a competitive level, it was assumed that the Corporate Social Performance model could be used as a referring theory. In that sense, at the base of the tool there is the Carroll's Pyramid of Responsibilities (1979) model. Garriga and Melè

(2004) classifies Carroll's theories under the integrative theory group as those theories that searches for social legitimacy and processes to give appropriate responses to social issues. In the model provided by Carroll, the author considered a definition of social responsibility, as a way to fully address the entire range of obligations business has to society, must embody the economic, legal, ethical, and discretionary categories of business performance. As discussed above, the continuum between reactivity and proactivity is considered as a linear model. Carroll's Pyramid cannot be adopted as a linear model, as it is obvious that firms can decide to approach the sustainability pyramid both in top down and bottom up sense (or in the middle).

Inspired by this model, the answers given by the CSR4UTOOL algorithm matched the Epstein linear model with the Carroll un-linear one. In particular, the algorithm codifies the answers in a framework supported by Unerman (2012) that includes four different motivations at the base of sustainability actions:

- 1) CSR actions to comply a legal standard or a managerial system;
- 2) CSR actions that can increase profit or reduce costs in the short-term;
- 3) CSR actions that can represent an investment and a source for competitive advantage;
- 4) CSR actions that are related to ethical and moral motivations.

In order to consider all the possible events, the algorithm includes also the case of: not interest on CSR, and, the case in which the entrepreneur wants to be socially responsible, but he perceive the CSR as a not affordable process and, for that reason, he does not want to be "socially responsible". Fig. 1 represents the scheme used for codifying the answer in the algorithm.

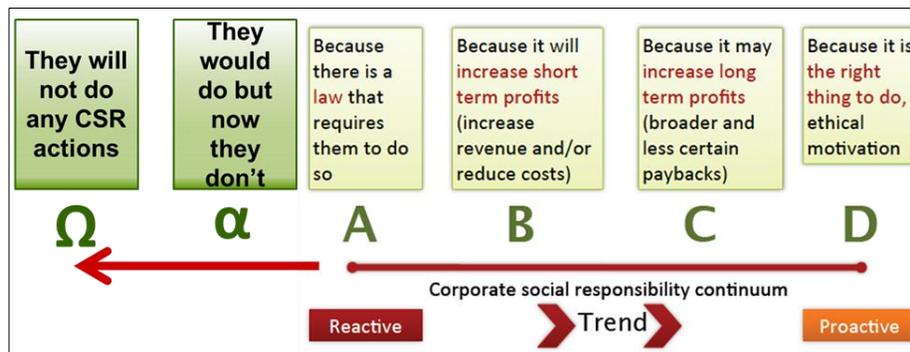


FIG. 1

The materiality level refers to the importance of referring to external and international standards in the selection of the items included in the algorithm. Complying with the previous checklist, the items has been selected and presented in the following order: CSR "term" and moral values; stakeholders; human rights; labor practices; suppliers; product or service responsibility; community development; environmental responsibility; financial responsibility; NGO. This order complies with the ISO26000 core concepts and, for each items a benchmark with international SEAR guidelines have been provided. In particular, each items was compared to GRI, GBS, GRI INGO, AA1000 Stakeholder engagement, OECD guidelines, UN Global Compact, Not-for-profit Agency guidelines, SA8000, ISO 14001, and EMAS. The comparison consisted to check if the item is present in these guidelines, how it is addressed and select the significance of the issue for an SME. This process is the equivalent of a materiality analysis as suggested by GRI. As there is not a scientific criterion for select the items, the tool has been created to be updated and modified with no costs of implementation.

For CSR "term" and moral values is intended: the knowledge of the acronym and the term; assess if the firm is following a policy, strategy, norms or a SEMS; eventually existence of SEAR process or reports or codified actions; external communication of CSR; internal communication of CSR; moral values that inspired the management culture. For the section stakeholders: the knowledge of the term stakeholder; an interactive stakeholder map using categorizing those who can influence and be influenced by the firm operational activities; eventually existence of stakeholder engagement actions. For human rights: sensitiveness towards human rights issues; eventually adhesion in human rights

defense actions and initiatives; presentation of a simulation (business case) in which the user is called to take a decision. For labor practices, the algorithm consider topics such as: gender equality in administrative and operational level; seniority levels; qualification; type of contract; CSR actions towards employees in terms of internal welfare; training and other benefit; evaluation of risks and safety. The theme “suppliers” aims to investigate the nature of the relation with the suppliers especially on topics such as: fair labor practices; audit and control on risks of non-compliant behavior (i.e. child labor, illegal labor, corruption, etc.); the role played by moral values during the dealing phase; CSR actions adopted by the firm; importance of networks of local suppliers; capacity to solve unmoral situation in dealing. About the responsibility related to product and service, the algorithm provides only the opportunity to select a list of CSR actions performed. About community development, the algorithm takes into account: CSR actions as corporate citizenship activities; relations with not-for-profit and social enterprises; awards received on sustainability subjects; value creation with public administrations. In relation to environmental responsibilities, the algorithm provides an evaluation on: understanding of the meaning “act in respect of the environment”; respect of the environment as source of competitive advantage; resolution of environmental issues/situation; environmental responsibility actions; performance data on waste management. About financial responsibility, the algorithm helps the entrepreneur to calculate the economic value added generated and distributes; it also asks data on fines for non-compliant actions, investment on CSR, and composition of the member of the board (presence of external manager not related to family in family business). The section related to NGO, is presented only to those NGO according to their profile, and it deals with: creation of shared value between purpose and financial equilibrium; importance of financial resources; management of funds; use of voluntary work and benefit provided to them, if any. After this general question, the algorithm present further sections on those supplement sectors identified by GRI, if any.

Moreover, the syntactic level has regarded the way through which one topics is addressed. First, different forms of questions/answers compose the algorithm:

- open answers used for present the firm and the mission: no semantic analysis are conducted on this;
- single-choice answers: used for applying the theoretical model discussed above (different $\Omega - D$);
- multiple-choice answers: used in order to list those CSR actions already adopted by the user;
- examples, practical situations or simulations: they have the aim of presenting a real case in which the user has to take a decision. Every case has been studied in order to imply a moral decision making process according to Kohlberg (1971);
- tables: in order to account and report quantitative information;
- interactive tools used only in the case of stakeholder map.

Secondly, a review of the terminological background of each items was performed. The structure of the sentences was revised in order to clarify the meaning of the questions and let the process easier to understand. For instance, according to Schlierer et al. (2012), and, in order to simplify the terminology used in CSR literature, the algorithm avoid the case of misinterpretation presenting a definition of the term included in the questions. In order to clarify a bit, the algorithm avoid the questions like: “*Is there a written agreement to exercise due diligence in order to identify, prevent and tackle the impacts, real or potential, linked to the activity in the field of human rights?*” in favor of a more clear question like: “*Does your organization join or adopt human rights defense programme/tools?*”

Third, in order to follow the rationale of the model, the answers are presented following the previous $\Omega - D$ scale, for example:

Ω No, I have never heard this term

α No, I have never heard this terms but I am interested in getting more information

A No, it does not, it only complies with mandatory laws and standards

B Yes, it does, because we needed it in order to strength business relation or increase organization reputation

C Yes, it joined UN GLOBAL COMPACT and it adopted the principles implementing them into its contracts and corporate policy in order to identify, prevent and tackle the impact, real or potential, of its activity in the field of human rights

D Yes, it joined UN GLOBAL COMPACT because we want to be a different organization that actively denounce and prevent human rights violations

The results page

The fourth step of the algorithm consists in the page of results. In that page, the user can have an overview of his corporate social performances divided by area of interests. For single-choice questions, the algorithm provide a score calculated as the mean of the answer given following the $\Omega - D$ scale. The use of the numerical scale to explain a non-linear behavior is *di per se* an error, as obviously the mean reduces the variability of the behavior especially in this un-linear context. In order to reduce this error, the scores are provided divided in area of interest, but the error remains.

For multiple-choice questions, the tool provides a benchmark of the users choices vs. other respondent of the same sector(s). It is supposed that showing the benchmark can help the user to identify if his firm lead the peer group or lagging behind. In addition, the report contains a summary of the overall occurrences for these type of questions.

For data inserted in tables, the tool provides a graphical representation of the performances and a benchmarking with other peers. Sometimes, the system provides different alerts, to advice the user if there are problems related to the data filled in.

Discussion on ongoing results

In July 2013, CSR4UTOOL was successfully presented during the final conference of LOIEs project and, in November 2013, it was completely functional. Nowadays, 125 users have been logged in and one third has finished the process of self-evaluation. Globally, it accounts more than 26000 pages visualized and more than 30 articles on press release. The tool is actually available in English, Italian, and Spanish. A Suomi translation will be uploaded during September 2014.

At June 2014, the 74% of the users are Italian firms, while the remaining 26% in equally distributed between European and non-Eu countries. The 76% of the users represent a profit company and 85% are SMEs, half of them is a micro enterprise (the remaining 15% has declared to act on the behalf of large company). As the collection of data is an ongoing process, the results after the first testing phase are under analysis and daily updated.

Several aims can justify the existence of the tool. First, it gives an answer to the need of tools for involving small entrepreneurs in applying sustainability core concepts into a free of charge and easy to use manner.

Secondly, the structure of the algorithm can be evolved including for instance an application in the field of vendor rating, banking sector for the evaluation of reputational risks and most important, in the public procurement process. The tool is developed explicitly for SMEs, but the data obtained can be used to derive important conclusions on the research side and for example in defining and studying public policy.

Of course, the existence of other ICT software to collect data and rate the sustainability of the performance are growing, but the CSR4UTOOL demonstrated that a web-based solution can be efficient overcoming the problems related to licenses and fees. In that sense, the opportunity for the user to download a brief report on his scores is perceived as incentive to use the tool as a service. For instance, the possibility to personalize the report has just been implemented.

While the findings could be useful for government in order to set public policies, for large companies in order to assess their supply chains, for banks to evaluate reputational risks, the process of self-evaluation is also a learning tool for academic purpose. A study on the adoption of the tool for academic teaching is ongoing and it will characterized the future versions of the CSR4UTOOL.

As a demonstration paper, the aim of this research is to shed light on the new technology that has been adopted to solve a gap both on literature and on the real economy side. As it is an innovative methodology and technology, the tool suffers of error and possible mistakes that are due on the statistical model and content side. In that sense, every scholars and practitioners that want to provide suggestions and insights are welcome.

References

Contact author for the list of references.

**Web Marketing and SMEs: needs, problems and opportunities.
An Empirical Study in the Marche Region**

*Gian Luca Gregori,
Luca Marinelli,
Valerio Temperini
Università Politecnica delle Marche, Italy*

Web Marketing and SMEs: needs, problems and opportunities. An Empirical Study in the Marche Region

Abstract

From several years, the Internet universe is going through an important phase characterized by new tools called social media, new methods of production and use of contents and new ways of interaction by users. This phase, called Web 2.0, is still developing and producing many effects in the marketing and business communication. Many companies have introduced Web 2.0 functionalities within their marketing strategies. In particular SMEs, for the first time, are found to have available a set of tools in line with its own resources and be able to make them competitive in many areas.

This study investigates the use of Web marketing tools by SMEs; particularly, it is aimed at:

- to describe the main characteristics regarding the use of Web marketing;
- to point out the needs related to the use of Web for developing marketing activities;
- to find the main problem aspects perceived for increasing the use of the Web in a marketing perspective.

Introduction

The aim of this paper is to analyze the role of the Web in marketing and communication activities of SMEs, and in particular to:

- detect the characteristics of the application to the Web, paying particular attention to the implementation of the sharing tools related to the so-called Web 2.0 (social networks, blogs ...);
- comply with the increasing demands and concerns related to the use of digital communication tools, and highlight the possible interventions aiming to stimulate further deployment in SMEs.

From the methodological point of view, a survey was carried live by the administration of a semi-structured questionnaire to a sample of SMEs located in the Marche (Italy); the set is defined by random drawing from the database of Chambers of Commerce based on the variables on the size and area location (province).

In addition, four focus groups were conducted with the owners of SMEs from different sectors involved and identified with the help of several professional associations; this qualitative research carried out by the focus group was divided into two phases:

- the first, for the exploration of the phenomenon and the detection of the main aspects characterizing the use of the web communication in enterprises of more limited size; the results were also useful for the setting of quantitative research;
- the second, focused and in-depth interpretation of some specific aspects that emerged in the survey directly.

Social Media, Marketing and SMEs

Although social media are widespread among users from the first half of the 2000s, the study of the relationship between these tools and marketing is fairly recent (Harris and Rae, 2009; Solis 2010).

Even more recent are the works that analyze the adoption of social media by SMEs for marketing purposes. Looking at Figure 1, which represents the trend of the frequency with which Google has been researched the term "social media" attached to the term "SME", you can see that the interest on this issue, almost non-existent before 2009, has grown significantly in recent years.

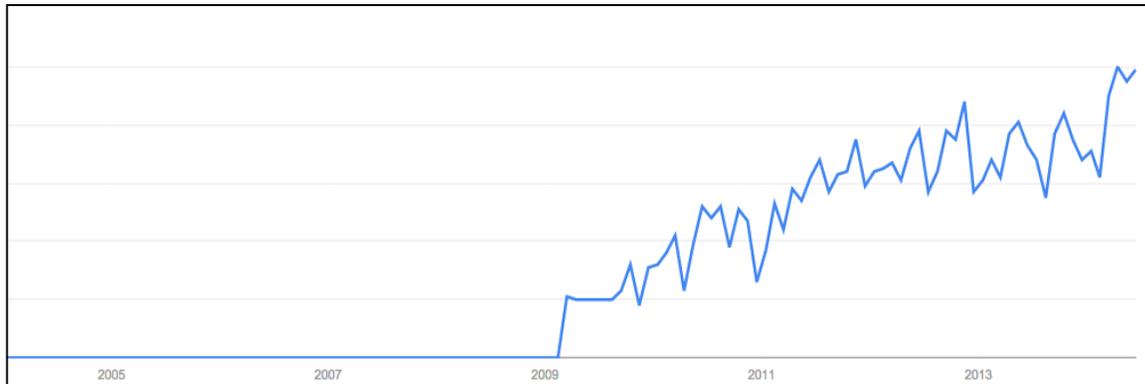


FIG. 1: GOOGLE TREND, ANALYSIS OG THE SEARCH CRITERIA “SOCIAL MEDIA” AND “SME”

Recognition at 06/16/2014

One of the most authoritative definitions of social media is that provided by Kaplan and Haenlein (2010) which describes social media ad a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content.

According to Luke (2009) social media are very important to the marketing environment, the marketing and communications transmitted on social, assume a "viral" nature and encourage consumers to interact with the brand by producing so many benefits to the business (Steinman and Hawkins, 2010).

Mangold and Faulds (2009) attribute to social media a “hybrid” role in the promotion mix. According to the study in fact, social media can be considered a hybrid element which combine aspects of traditional communication (companies interact with consumers) with innovative elements of marketing such as the ability to amplify word of mouth (consumers interact with each other) aspect that often remains outside the control of marketers.

Research of Breslauer and Smith (2009) shows that firms are using social media to build direct relationships with consumers, increase traffic to the website, identify new business opportunities, build communities around brands, collect and disseminate content feedback from customers. However, it is necessary to underline that not always these benefits are also caught by SMEs.

Carrying out an analysis of the literature on the relationship between social media and SMEs, different approaches emerge. A first suggestion by McGowan and Hampton (2006) highlights how the context in which SMEs operate is strongly characterized by the management of the network of personal relationships.

Concepts such as trust and commitment are the basis of the system of relations that an SME entrepreneur establishes with its business partners. With the advent of social media, these concepts have been declined online opening new scenarios for entrepreneurs. The technology in this context is seen to be useful as an opportunity to expand their network of relationships, both as a possible threat as it would lead to business relationships on a more impersonal.

On the issue of the relationship between social media and SMEs, the study by Durkin, McGowan and McKeown (2013) identifies two different approaches: a proactive approach defined, adopted by private SMEs in which these instruments are seen as an opportunity. This is offset by a reactive approach, typical of public SMEs, in which firms decide to be present on social media, not so much for the opportunity to be seized, but as a reaction to potential threats produced by a possible non-use of these channels.

The attention to the scarcity of resources available to the SMEs, has created a line of research that links social media to SME as a cheaper marketing tools respects to the traditional ones (Harris and Rae, 2009; Belo, Castela and Fernandes , 2013).

An interesting view is provided by Kirtis and Karahan (2011) which identifies the adoption of a cost-efficient social media marketing strategy can in fact to be sustained even in a context of global crisis. The crisis, they argue,

has put a strain on the survival of enterprises that in many cases have responded with a reduction in the budget, in particular that of marketing (Harris and Rae, 2009).

With this in mind many SMEs have responded to the crisis by seizing the new opportunities provided by the web integrating these tools to offline marketing depleted by lack of resources. According to Belo, Castela and Fernandes (2013) in front of a clear economic impropriety on the part of the SMEs is to acquire proprietary management software, the adoption of social media could be a sustainable solution to maintain competitiveness in the so-called information society.

However, although SME entrepreneurs are well aware of the potential of the use of social media for marketing purposes (Govender, 2013), methods of use and application fields do not seem to appear equally clear. It is impossible to speak of social media and SMEs without discussing the obvious barriers that contribute to slowing down small businesses in the process of adoption of new forms of digital marketing.

The issue of barriers to the use of social media is common and has been addressed by several authors (Michaelidou, Siamagka and Christodoulides, 2011; Chen and Wellman, 2009; Schwarz-DuPre, 2006). The most important and frequent barriers are endogenous (Hywel et al.), such as the propensity of entrepreneurs to remain at means "classics" such as phone or email, or the lack of time for use in the management of social media or the lack of technical expertise and technological know-how.

A very present theme is the lack of resources, both human, both in time to be used in the management of the online channel (Harris and Rae, 2009). As mentioned previously, the application fields do not seem to appear clear. Govender (2013), analyzing the social media marketing strategies implemented by SMEs, for example, has identified an action almost nil in viral marketing campaigns and sponsorship forms online.

Belo et al. (2013) speak of resistance to change and lack of alignment of the business prospects of firms with effective opportunities provided by the tools of the web. Another aspect on which we must reflect and that is a factor that greatly affects the level of adoption of social media is the type of business in which the company operates.

As stated earlier, social media are powered by user generated content or content from those produced by end-users; it is therefore considered that a communication based on social media can be more profitable for B2C, turning to final consumers, are able to take advantage of the online communication channel.

In this perspective B2B oriented companies often make it hard to grasp the real potential of these tools. Michealidou, Siamagka and Christodoulides (2011) identified a lack of research and literature on the relationship between social media marketing and B2B businesses. The studies are focused on almost all B2C business oriented. The authors argue that although it appears that all of the B2B business is willing to increase their investment in social media, the delay in the adoption of these tools for marketing purposes, compared to companies in the B2C sector, is still quite substantial. In support of this thesis have been identified barriers that maintain the gap and a high level of use of these platforms in an embryonic state.

In this regard, the authors have identified the main strengths such as not knowing the ways in which technology could support the brand and again, lack of time, resources and expertise to implement a strategy for social media marketing.

Table 1 shows the main contributions to the literature on the topics discussed.

TABLE 1: LITERATURE REVIEW

Authors	Year	Theme
Kaplan A., Haenlein M.	2009	Web 2.0, Social Media definition and description of the tools
Harris L., Rae, A.; Govender P.; Durkin M., McGowan P., McKeow N.	2009; 2013	Social Media and Small Business; Social Media adoption by SMEs
Mangold W., Faulds D.	2009	Social Media as a new hybrid element of the promotion mix
Kirtis A., Karahan F.	2011	Social Media as a new cost-efficient marketing tool.

Hywel G., Carr J., Gannon-Learly P., Fuller-Love N., O’Gorman B.; Belo A., Castela G., Fernandes S.; Michealidou N., Siamagka N., Christoulides G.	2011; 2013;	Usage barriers of Social Media marketing. Social Media resistance adoption.
--	-------------	---

Main results of the direct survey

The survey was conducted on a sample of 802 SMEs located in the Marche Region, which was administered via CATI and CAWI a structured questionnaire; the set was selected from the database of Chambers of Commerce with random mode on the basis of the variables on the size and territory (province of localization).

With regard to the dimensional characteristics should be noted that the majority (60.6%) of the companies have a number of employees less than 10 units, 22.6% between 11-20 units, 6.4% between 21-30, over the remaining 30 unit; In addition, about more than half (55.4%) of the undertakings has an annual turnover of less than one million euros, a firm out of three within the band of the 1-5 million euro, the remaining excess of 5 million euro. Below is a percentage breakdown of the sample by sectors: trade (18.2%), engineering (16.3%), footwear (11.2%), services (8.8%), wood and furniture (7.3%), food (5.3%), food (4.6%) and tourism (4.1%).

For the 14.5% of the companies clients are represented only by final consumers, for only 39.4% of companies and other organizations, for only 12.3% as traders; in other cases the type of clientele is more varied. With regard to the geographical origin of customers, it is noted that this is a purely local company for about five; in addition, 17.8% of the companies market extends within the boundaries of the region, to 26.5% by national ones; for over a third of the market is also or mainly international.

WITH REGARD TO THE INTERNET, ONE FIRST NOTICES THAT 28.8% OF COMPANIES SAID THEY DID NOT HAVE ITS OWN WEB SITE IN ADDITION, ABOUT TWO OUT OF THREE COMPANIES FEEL THE NEED TO DEVELOP THE USE TO COMMUNICATE AND INTERACT WITH CUSTOMERS; THE MAJORITY FOR PURPOSES OF ADVERTISING AND PROMOTION ON THE MARKET (TABLE 2).

TABLE 2 – TO WHAT PURPOSE IS A NEED TO DEVELOP THE USE OF INTERNET IN YOUR COMPANY?

Activities (multiple answers)	Units	% of total
Communicate, interact with customers	522	65.1%
Advertising / promotion on the market	432	53.9%
Reach foreign markets	243	30.3%
Collaborate / cooperate “at a distance” with parties outside the company	236	29.4%
Sales (e-commerce)	221	27.6%
Buy	220	27.4%
Market Analysis	201	25.1%
Crowdfunding	46	5.7%
Other	90	11.2%
<i>Total respondent</i>	<i>802</i>	<i>100.0%</i>

Source: our calculations based on the results of direct survey

AMONG THE MAJOR SOCIAL MEDIA USED BY COMPANIES FOR THE COMMUNICATION AND PROMOTION PURPOSES, FACEBOOK STANDS OUT WITH A PERCENTAGE OF 26.2% (TABLE 3), FOLLOWED, WITH MUCH LOWER PROPORTIONS, YOUTUBE (6.9%) AND TWITTER (6.4%). FOR OTHER KNOWN MEANS THE ACTION IS RATHER LIMITED. IN THE 86.4% OF THE CASES FOR THE USE OF SOCIAL MEDIA WOULD BE USED IN INTERNAL COMPANY STAFF.

IT SHOULD ALSO BE POINTED OUT THAT 66.3% OF RESPONDENTS STATED THAT THE HOLDING SHOULD NOT WE MAKE USE OF THESE CHANNELS.

TABLE 3 – SOCIAL MEDIA USED BY COMPANY FOR COMMUNICATION AND PROMOTION PURPOSES

Digital tools used (multiple answers)	Units	% of total
Facebook	210	26.2%
Youtube	55	6.9%
Twitter	51	6.4%
Blog	20	2.5%
Forum	13	1.6%
Instagram	11	1.4%
Flickr	5	0.6%
Myspace	3	0.4%
Others	78	9.7%
No one	531	66.3%
<i>Total respondents</i>	<i>801</i>	<i>100.0%</i>

Source: our calculations based on the results of direct survey

THE MAJORITY (52.4%) OF RESPONDENTS EXPRESSED A POSITIVE OPINION ON THE USEFULNESS OF THE USE OF WEB COMMUNICATION TOOLS, FOR THE DEVELOPMENT OF THE ENTERPRISE. THE 7.9% THINK THEY ARE RATHER USELESS.

FOR THE 17.4% OF COMPANIES THERE IS A PARTICULAR FOCUS ON COMMUNICATION ON MOBILE DEVICES, WHICH WOULD MATERIALIZE IN THE DEVELOPMENT OF SPECIFIC APPLICATIONS OR WEB PAGES.

Regarding to the possible interventions aimed at developing the use of the web communication, we observe the following aspects:

- Support the development / improvement of the website is judged on average helpful;
- About half of the respondents (50.8%) welcomes the opportunity to increase the knowledge of the instruments;
- The 48.1% welcomes the opportunity to develop competencies;
- Incentives to encourage the integration of young graduates are more appreciated in larger firms;
- 45.2% of respondents welcomes the opportunity to obtain economic incentives for the development of marketing and communication projects;
- The possibility of aggregation of enterprises to make use of external expertise, assessments expressed by respondents are quite dissimilar;
- The 51.9% awarded expresses the need to strengthen the technological equipment.

It was considered useful and appropriate to review these results taking into account the heterogeneity of the sectors and characteristics of the target market of the companies making up the sample. In this sense, it was decided to divide the results obtained on the basis of two variables: the type of customer (BtoB or BtoC) and the geographic extent of the market (local market or not Predominantly Predominantly local market). They were thus identified four clusters of firms. Below we propose the outline of the main findings.

TABLE 4 – SOME COMPARISONS

Aspects	SEGMENT "A" Companies that cater to consumers. Predominantly local market (19.0% of the sample)	SEGMENT "B" Companies that cater to consumers. NOT predominantly local market. (23.7% of the sample)	SEGMENT "C" Companies that DO NOT cater to consumers. Predominantly local market. (14.0% of the sample)	SEGMENT "D" Companies that DO NOT cater to consumers. NOT predominantly local market. (43.2% of the sample)

% of Businesses with no website	37.9%	17.4%	47.3%	25.8%
Development needs of Internet usage (first 3 goals in priority order).	1st Communicate, interact with customers. 2nd Advertising, promotion on the market 3rd Sales (e-commerce)	1st Communicate, interact with customers. 2nd Advertising, promotion on the market 3rd Reach foreign markets	1st Communicate, interact with customers. 2nd Advertising, promotion on the market 3rd Collaborate / cooperate "at a distance" with parties outside the company	1st Communicate, interact with customers. 2nd Advertising, promotion on the market 3rd Reach foreign markets
% Of companies that do not use social media to communicate and promote	64.1%	45.8%	83.8%	72.8%
Perceived usefulness of the web communication Average values on a scale from 1 (useless) to 5 (very useful)	3.3	3.9	3.2	3.5
Interventions found to be most useful for the development of web communication Top 3 interventions for the average of the opinions expressed on a scale from 1 (useless) to 5 (very useful)	1st Increase the knowledge of the tools (3.3) 2nd Develop internal expertise (3.2) 3rd Strengthen the technological equipment (3.1)	1st Strengthen the technological equipment (3.8) 2nd Increase the knowledge of the tools (3.5) 3rd Incentives to develop marketing and communication projects (3.5)	1st Increase the knowledge of the tools (3.2) 2nd Strengthen the technological equipment (3.2) 3rd Develop internal expertise (3.1)	1st Increase the knowledge of the tools (3.5) 2nd Strengthen the technological equipment (3.4) 3rd Develop internal expertise (3.4)

Source: our calculations based on the results of direct survey

The focus groups involving a total of 29 representatives of small and micro enterprises in different sectors; the aim was to examine the methods and problems of use of digital communication. Among the main aspects are confirmed:

- The recognition of the importance of the use of the internet to communicate and promote the markets, in reference abroad. In some cases, given the characteristics of the sectors or types of markets / customers, the assessment of the usefulness of digital tools and social networking in particular, is less positive; however, you encounter some bad experiences in relation to what was perceived poor response following the development of certain activities on the Web.

- In most cases, digital communication, both with reference to the website with the other instruments, is performed using, primarily, if not totally, external expertise to the enterprise; the use of internal staff, qualified through involvement in training, would be made solely for simple updating of content. The management of data useful for assessing the efficiency and effectiveness of the various online channels, is not always done; when this happens, they would be outside consultants to provide, creating reporting.
- Among the major perceived problems and needs regarding the use of digital tools, you observe, in particular, the limitations related to human resources, in terms of both quantitative and qualitative. With regard to the latter, the awareness that for proper use of digital tools are needed expertise; But it is not sustainable for a small company to have an internal figure with those skills. The use of external suppliers is often inhibited by the limited economic resources.
- Moreover, it is stressed that the lack of an appropriate culture of online communication and internal figures prepared, make it more difficult the process of adoption of new instruments; the biggest challenge for providers of services and technologies is not to find people with whom the internal interface and collaborate in order to develop their business more efficiently and effectively.
- It is often highlighted the importance of developing an appropriate culture and raise the level of knowledge; this, it is essential to facilitate the adoption of tools, allow you to interface with the best service providers, and even to make informed choices in the context of the possible solutions, so that they are consistent with the needs and characteristics of 'company.
- Another important aspect is formed by the aggregation of enterprises; the reference is especially the possibility to make use of specialized skills, which would otherwise be inaccessible to the individual small business, for reasons of economic unsustainability.
- Additional information converge in the idea to create technology platforms for the promotion of collective enterprises in the same sector; it is noted, however, also have the opportunity to create similar tools for companies belonging to different sectors in order to promote the possible integration of skills and forms of collaboration.

Concluding remarks and managerial implications

The results of the study allow us to highlight different aspects of business development and marketing communications based on the use of ICT.

It is first observed, in general, a limited use of digital communication tools, both "old" than "new" generation. The results of the research confirm, however, that the potential of innovative tools of communication have not been properly educated by this type of business; This is not only due to economic reasons, as in some cases the resources to invest may be relatively small. The problems, in fact, be sought in the cultural characteristics, the approach to the use of the instruments, human resources and skills available; the limits of the application are also related to the characteristics of the target market and business model.

It 'should also be pointed out that SMEs need tools and approaches specific; often mistakenly believes that we can respond to the needs and problems of the companies of more limited size, simply by transferring them to the models and tools that "work" for larger ones. In fact, it would be more appropriate to develop ad hoc solutions with respect to their different structural characteristics, but also cultural and behavioral.

It is considered important, also does not consider SMEs evenly and develop solutions with the claim that they are "valid for all"; it is more appropriate to adopt a differentiated approach, taking into account the characteristics of size, sector and market. As shown by the fact, based on these variables can significantly change perceptions about the usefulness of using these tools, and you can have different assessments regarding the possible interventions to facilitate their adoption. As far as the latter is observed, first, the need to encourage cultural growth and increase knowledge regarding the different tools of digital communication and the possible uses of the same for business purposes; also emerged in the focus groups often not aware of the existence of some rather well-known means. It appears in this sense, the creation of useful and informative interventions targeted training programs for different types of business features and needs.

It should also be considered to be the theme of skills. In the case of undertakings that may entrust the management of online communication to internal human resources, the use of training can bring important benefits. In other cases, it may be useful to promote the integration of young graduates who can bring ideas and knowledge necessary to develop the use of tools; as noted above, the availability of an internal figure prepared can facilitate the process of adoption, as it can also encourage interaction with suppliers of solutions and services for the development of on-line communication. It should be noted, however, that the impossibility of hiring the young by the company, then the problem could pose management tools once the partnership; the risk appears to be greater in the case of micro enterprises, which, in fact, do not seem to appreciate this solution.

An interesting intervention considered in some sense alternative consists in aggregating companies in order to benefit from the assistance of a competent figure, with the possibility of supporting a lower cost. The aggregation could be promoted through the development of technology platforms for the delivery of community services for increasing visibility into network and business promotion.

Another problematic aspect highlighted is the limited technological resources; in this sense, were also observed the critical technological infrastructure especially with reference to some internal areas of the region.

In order to have a greater impact on the development of digital communication in SMEs, can not escape, therefore, the importance of use of synergistic actions between the different public and private stakeholders of the territory.

References

- [1] *Belo, A., Castela, G., Fernandes, S., (2013). How Small and Medium Enterprises are Using Social Networks? Evidence from the Algarve Region. Advances in information system in technologies, pp. 143-155.*
- [2] *Durkin M., McGowan P., McKeown N., (2013). Exploring social media adoption in small to medium-sized enterprises in Ireland. Journal of Small Business and Enterprise Development Vol. 20 No. 4 pp. 716-734.*
- [3] *Govender J., (2013). Using the Internet to market small, medium and micro enterprises in a developing economy. Problems and Perspectives in Management, Vol. 11, Issue 4.*
- [4] *Harris, L., Rae, A., (2009). Social networks: the future of marketing for small business. Journal of Business Strategy, Vol. 30, N° 5, pp. 24-31.*
- [5] *Hywel G., Carr J., Gannon-Learly P., Fuller-Love N., O’Gorman B., An investigation into the use of Social Media by SME owners. Available at http://www.academia.edu/3999245/An_investigation_into_the_use_of_Social_Media_by_SME_owners*
- [6] *Kaplan, A., M., Haenlein, M., (2012). Users of the word, unite! The challenges and opportunities of Social Media. Business Horizons, 53, pp. 59-68.*
- [7] *Kirtis A. K., Karahan F., (2011). To Be or Not to Be in Social Media Arena as the Most Cost-Efficient Marketing Strategy after the Global Recession. Procedia Social and Behavioral Sciences Vol. 24, pp. 260-268.*
- [8] *Mangold, W., G., Faulds, D., J., (2009). Social media: the new hybrid element of the promotion mix. Business Horizon, 52, 357-365.*
- [9] *Michaelidou, N., Siamagka, N., T., Christodoulides, G., (2011). Usage, barriers and measurement of social media marketing: an exploratory investigation of small and medium B2B brands. Industrial Marketing Managemen, 40, 1153-1159.*
- [10] *Steinman, M.L., Hawkins, M. (2010). When marketing through social media, legal risks can go viral. Intellectual Property & Technology Law Journal, Vol. 22 no.8, pp. 1-9.*

The innovation approach to the internet-marketing efficiency evaluation

Larisa Kapustina, lakapustina@bk.ru

Tatiana Sysoeva, t.l.sysoea@mail.ru

The Ural State University of Economics, Yekaterinburg, Russia

The innovation approach to the internet-marketing efficiency evaluation

Abstract

The authors present the results of the evaluation in efficiency on marketing promotion in internet for regional provider of communication services. The technologies of relationship marketing and value - oriented marketing are used to involve and keep the customers via internet. The key indicators are based on the postclick-analysis and postview-analysis. They afford to calculate the effects of online promotion policy. CLTV (Customer Lifetime Value) is the main indicator for measurement of customer's loyalty and average profit from one client in the perspective.

In current marketing communication the internet is taking the essential place. According to the Association of the Communication Agencies in Russia (ACAR) in 2013 about 22% of the total marketing budget was spend to the media and context advertising in virtual space by national companies. In this situation the internet advertising is still one of the major segments of the market, which keeps the rapid growth with the annual increase by 25-35%. This rapid growth demands from the marketing researches the serious study of the marketing tools and methods to promote in the internet more efficiently.

Often the internet-marketing is known to be the advertising in the internet, including the e-mail advertisements (Eley, Tilley, 2009), or the reach of the marketing targets by using digital technologies (Chaffi, Mayer, 2006), or using the internet or other digital communication with target markets by the most efficient tools (Vella, J. Kester, 2009). Many authors agreed that the internet-marketing is based on the traditional marketing and they add the following: in the promotion mix the virtual communications play the major role and it's the same for the companies, products and the services.

The Institution of the Direct Marketing (IDM) provides the following the most competed definition of the internet-marketing: it's the integrated usage of the communication channels in virtual space for the supporting the marketing activity of the company, targeting on the profit and customer loyalty with the improving the on-line services for the best customer satisfaction and the increasing their knowledge about the company, the brand knowledge, the products and the services. The key point for us in this determination is the presence the customer loyalty goal and the profitable mutual benefit long-term relationship with the clients. So the innovation of our approach is based on the relationship marketing with the customer as the great value for the brand, this is the crucial for the efficiency of the digital communications.

The internet-marketing communication performance is considered from the customer relationship staged: attraction, engagement, conversion, holding. The main element for the efficient digital promotion is the customer value. The customer lifetime value in current situation and in the future (CLTV) we can estimate by the following formula (Jeffry, 2013):

$$CLTV = -AC + \sum_{n=1}^N \frac{(M_n - C_n) * p^n}{(1 + r)^n} = \sum_{n=1}^N \frac{NPV}{k} * p^n$$

AC – the expenses for the customer attraction;

M_n – profit we can receive with the client in period n;

C_n – the expenses for the marketing and customer services;

p – the possibility that the client not leave the company for one year;

N – the total number of the years or periods;

r – the discount rate;

NPV – the net discount value.

We used the circle model SOSTAC as the base for the planning of the company promotion on-line, which means the situation data, objectives, strategy, tactics, action, control. The brand and it's main competitors activity is the study for the situation stage, also it's paid attention to the peculiarities of the goods and services, the sales and

consumption conditions, and customer behavior models in the internet. Basically the internet-marketing can provide the following objectives for the company: to create the new products demand, to establish the particular brand essence, to increase the sales and to provide the customer loyalty.

The target audience segmentation is performed by creation the promotion strategy; also it's carried out the basic choice of the internet-marketing tools with the market current situation, by example, the seasons, the specifics of the customer behavior in the internet and the budget. The right strategy allows the company to minimize the budget and to reach the business goals with the usage of internet-marketing. All the tactics can provide the detail plan for the strategy and also include the choice of the specific advertising tools, the development of the advertising campaigns based on the target audience performance, seasons and the available budget. After all this, the performance of the strategic plans and the control stage are going on.

We propose the stages of the choice internet-marketing tools for the company promotion in internet based on the data of the analytics services with seasonal demand and other factors (Table 1).

TABLE 1: THE STAGES OF THE CHOICE INTERNET-MARKETING TOOLS FOR COMPANY PROMOTION

The stage	Data for analysis	Data sources
1 Business analysis	The field of business; The area; The clients (b2b/b2c); The positioning; The major competitors; The market segments; The business goals and internet-marketing.	Company web site, internal paper, media
2 The analysis of the marketing activity in the internet for the company and it's comparison with competitors	The share for the internet advertising in the total budget; The used tools of the internet-marketing; The analysis of the company web site view and functions; The company web site rating in the global searching systems; The volume and dynamics Queues index, PR, internal links to the site; The context advertising; The customer involvement to the brand activities; The methods of customer loyalty.	AdIndex, SimilarWeb, Yandex metrics, Google Analytics, company web site, PR-CY.ru, AdVse, groups in social networks
3 Target audience analysis	Social-demographical; Product and services; Segmentation DigitalLife; The most visited web resources.	Marketing Index TNS, LI, Yandex metrics, Google Analytics, groups in social networks (structure), product and company reviews in social networks and discussions, iStar, WebIndex
4 Customer behavior analysis	Used media; The involvement to the choice; Used gadgets for the information search; The position in matrix by Rossiter-Persi.	Consumer Barometer,
5 The search demand analysis	The navigation and information searches structure; Seasonal factor; Area popularity in navigation demand.	Yandex Wordstat

The main approach to the evaluation of the efficiency in the internet-marketing is the postclick-analysis, and we fixed the boards of it's usage for the measure the tools of the internet-marketing, which propose the immediate transfer to the company web site for the particular actions. In the same time, we have to mention that the brand essence and the brand loyalty are not to be measured by only with the postclick analysis. It's not obligatory to be attracted by

the advertising by clicking the links. The postview analysis is proposed to get over that, it provides the possibility to observe the user actions on the web site after the viewing the ads.

In table 2 we provide the differences between the internet-marketing tools, which can be analyzed by postclick and postview.

TABLE 2: THE DISTRIBUTION OF THE INTERNET-MARKETING TOOLS BY THE TYPES OF ANALYSIS

Postclick-analysis	Postview- analysis
<ul style="list-style-type: none"> - context advertising - searching and returning retargeting - searching optimization - partners program - profitable email 	<ul style="list-style-type: none"> - media advertising - performing the groups in social networks - reputation monitor - paper promotion - pr email

The virtual space can be measured very precisely and we introduce the approach to the efficient estimation of the internet-marketing with the each of the four customer performance stages: attraction, engagement, conversion and holding. In the calculation we also mentioned the factor of the current money value; it's vital and obligatory for the companies which objected to the long-term relationship with the clients. The system of the indicators for the efficiency evaluation is presented in the table 3.

TABLE 3: THE INTERNET-MARKETING EFFICIENCY INDICATORS

The stages of the customer relationship	The indicators of the internet-marketing efficiency from the position of the relationship marketing based on the customer value
Attraction	Reach, the number of views, CTR - Click Through Rate, CPT - Cost Per Thousand Opportunities To See, CPC - Cost Per Click. Affinity, GRP - Gross Rating Point, TRP - Target Rating Points.
Engagement	Pages views, number of visitors, the deep of the view for one visitor (the average number of the pages visited by one user), return index (the number of the visitors, which close the page after it's enter), CPV (Cost Per Visitor).
Conversion	Target reach – the number of the success completed actions on the site (purchase, information claim, contact request and so on). Conversion – the number of the reached goal to the total visitors. The cost of conversion, ROMI – Return On Marketing Investment, IRR Internal Rate of Return, NPV - Net Present Value, PI - Profitability Index, DPP – Discounted Payback Period
Holding	Number of the repeat target goals, customer outflow, the difference between the one and the total number of repeat target goals to the total number of clients, who made only one target action. CLTV (customer lifetime value) – total profit (lost), which the client and the target segment provide.

We develop the internet-marketing communication plan for the mobile operator Motiv in the Sverdlovsk oblast in 2014 and we also have estimated its efficiency. The company PLC Yekaterinburg-2000 presents the brand Motiv, which provide the cell communication for 18 years in Ural region. The brand Motiv is one of the major on the regional cell communication market, the positioning is the following: Motiv is the quite cheap and available cell operator for the well cover of the whole Ural region including Sverdlovsk oblast.

The key factors for the cell operator in the connection quality and its availability, in this situation we recommend to focus in promotion on the mobile advertising social network, emails and the reviews and feed-back analysis.

According to the service Consumer Barometer it was discovered that the major customers (74%) search the information about the cell operator and its tariffs before the purchase, 88% of them uses the PC, notebooks, tablets, which cuts the availability of the mobile ads for this target audience.

In matrix Rossiter-Persi the cell phones are the part in High involvement-information tune, as demand from the potential client's deep study and the caring out the rational analyze of the proposal benefits and limitations. Also it's important to provide the information support to the clients, when they are in the situation of making choice. It's possible to reach this by almost the all internet-marketing tools: web site, search optimization, context ads, banners ads, retargeting, emails, content marketing, managing the groups in social networks.

The main tool for the brand awareness is still the media advertising and we propose to use it, according to the target audience analysis, it's behavior and consumption actions, we develop the following activity focused on the attraction new customer and holding the current:

1. The media plan with the 14 popular web sites. According to the statistics we received 14.31 mln views of ads. The total budget was 778 thousand rubles. Postclick analysis provides 12 185 visitors for company web site after viewing the ads. Postview analysis - 42 720 visitors. So, we have proved than the postclick analysis describes less that 30% cases of the efficient actions of the banner ads and it's nor recommended to use the only it. The advertising campaign was successful. The estimated number of the attracted customer – 2 323, the net profit – 674 thousand rubles, CLTV – 289 rubles.

2. We propose to increase the number of participants in famous Russian social network Vkontakte to 40 000 people for the next 10 months. Part of the data was not collected due to the limitation of the social network, the budget will be about 1.2 mln rubles. The net profit can be about 20.78 mln rubles, CLTV – 519 rubles.

Both of proposed campaigns are efficient and competitive, moreover the activity for the decreasing the customer outflow will be more attractive for the brand.

Reference

- [1] Chaffey, D. (2006) Internet Marketing: Strategy, Implementation and Practice. Pearson Education, 579 p.
- [2] Digital marketing strategy advice: [Electronic version]. <http://www.smartinsights.com/>
- [3] Eley, B. (2009) Online Marketing Inside Out. Tilley S./ SitePoint Pty.Ltd, 21-48.
- [4] Jeffrey M. (2013) Marketing based on 15 indicators, which must know everyone - M.: Mann, Ivanov and Ferber, 189.
- [5] The Association of the Communication Agencies in Russia (ACAR): [Electronic version]. <http://www.akarussia.ru/>
- [6] The IDM - The Institute of direct and digital marketing: [Electronic version]. <http://www.theidm.com/>
- [7] Vella, L. (2009) Handbook on E-marketing for tourism destination/ L.Vella, J.Kester// World Tourism Organization and the European Travel commission: Madrid, 18-21.

Digital Marketing in Germany
- functional principles, status, development and perspective

Ralf Lehmann, ralf.lehmann1@gmail.com

Forstern - Germany

Digital Marketing in Germany

– functional principles, status, development and perspective

Abstract

Digital Marketing in Germany is on the way to grow to one of the most important Marketing branches. But still a major part of the small and medium companies doesn't use the existing possibilities – and new opportunities are created by the development to mobile and location based Marketing.

This article describes the status of digital marketing in Germany by showing the functional principles of Google Adwords and Adsense, Affiliate Marketing and Social Media Marketing and discussing the usage of Digital Marketing in different types of enterprises.

A summary of current studies regarding the changing usage of media and technology by the German people shows the direction of the future development. The new possibilities of mobile and location based marketing are analysed by discussing the Go To Market of the Munich – based Start up “Shopstar”, which transfers the principles of Google Marketing to the stationary retail shop.

1. Situation

Digital Marketing is the promotion of products or brands via one or more forms of digital media. The term was first used in 1990 for advertising via electronic media, which was e.g. BTX or portals like T-Mobil or Yahoo. To this time the World Wide Web had just 1000 servers and was used mainly from research institutes without commercial intentions.

With the growth and commercialisation of the World Wide Web as the main application of the Internet, as shown in FIG. 2, Digital Marketing is now almost completely standing for advertising via Internet, this includes a companies own homepage, advertising on other homepages, in search engines, social media sides or via email. (Compare Lammenett 2012)

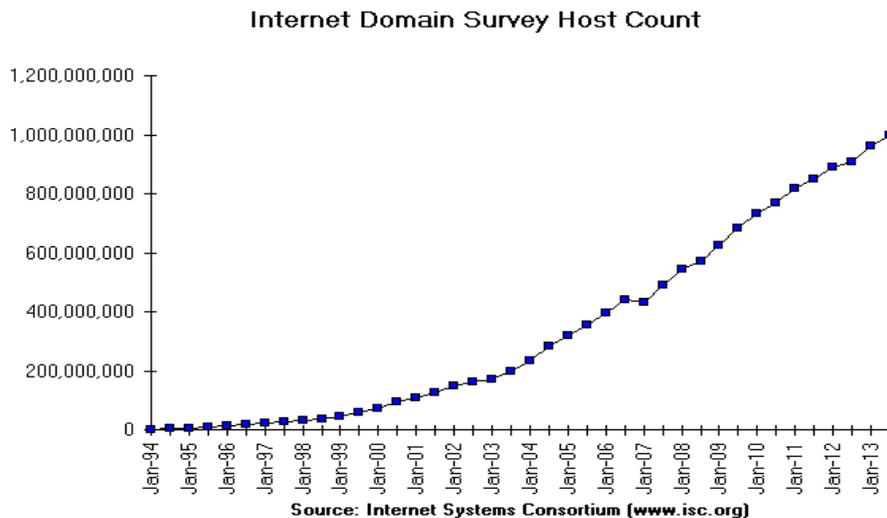


FIG. 2: DEVELOPMENT OF THE NUMBER OF WWW-SERVERS, SOURCE: ISC 2014

The growing usage of the World Wide Web in Germany is analysed by two studies, which are representative for the German people (Initiative-D21 2013) and the German companies (Deutsche Post 2013). FIG. 3 shows the usage of the Internet in the German population over 14 years of age. We can see that the growth of the usage of Internet is slowing down, reaching saturation at around 80%.

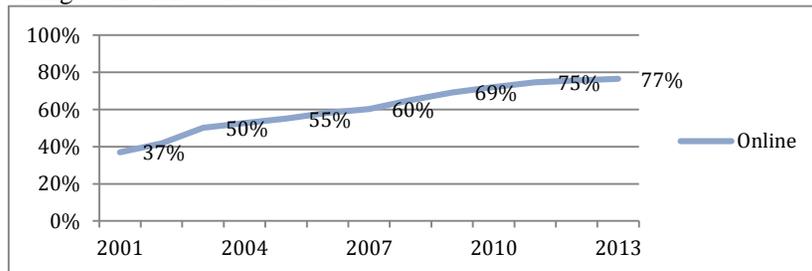


FIG. 3: INTERNET USAGE IN GERMAN POPULATION
Data from initiative-d21 2013

FIG. 4 is drawn from data of the Dialog Marketing Monitor, a yearly study done by Deutsche Post, where ca. 4000 companies are asked about their marketing budgets spending and the results of this representative survey are projected on the whole ca. 3 million German companies. So we can see an amount of jitter around a growth similar to FIG. 3

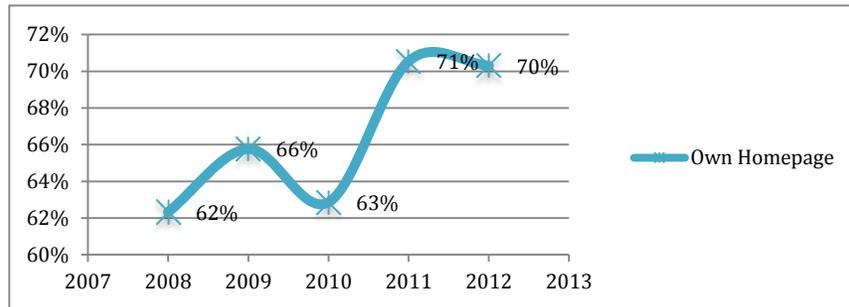


FIG. 4: PERCENTAGE OF COMPANIES WITH OWN HOMEPAGE

The growing usage of the Internet also changes the shopping behaviour of the German consumers. FIG. 5 integrates the data from two sources (Shopbetreiber-blog 2014 and GIM 2014) to show the share of online business in Germany of the mail order business and of the whole retail volume in Germany. It is clearly visible that, despite of the online revenue growing faster, the share of retail is still small by 11% - by both online and retail volume growing further in the same rate, the online volume will reach 50% of the retail volume in not less then 20 years.

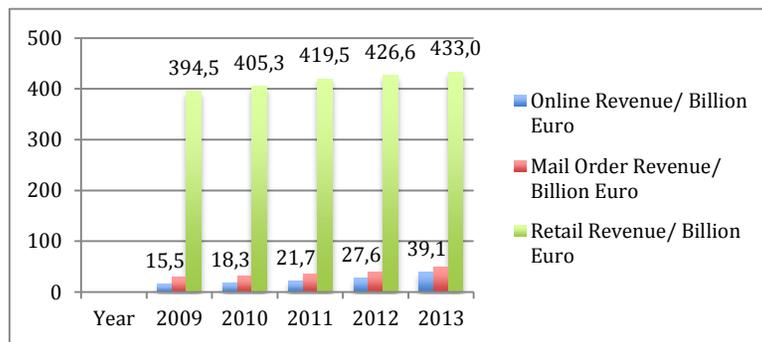


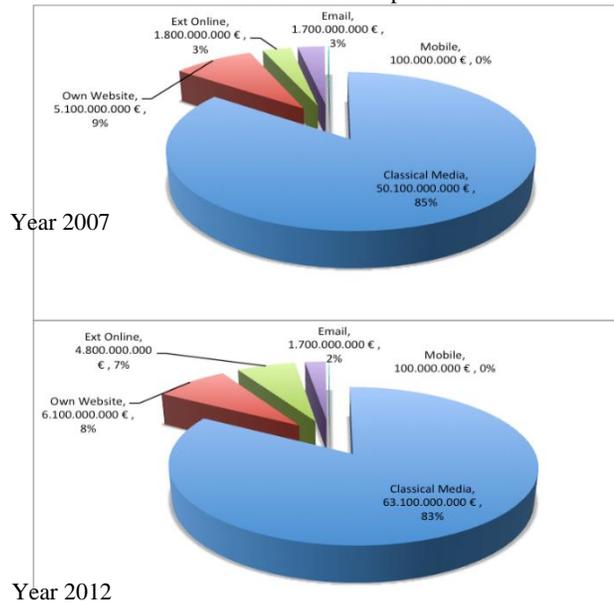
FIG. 5: DEVELOPMENT OF RETAIL-, MAIL ORDER- AND ONLINE REVENUE IN GERMANY.

Data source: shopbetreiber-blog 2014 and gim 2014

Following the growing impact of the Internet for the consumers and also for the Online Retail business the companies are shifting a part of their marketing budget. The DMM studies of Deutsche Post show the changing distribution of the marketing budgets of German companies, where the “classical” marketing media as TV, Radio and Print-Advertising are almost stagnating, whereas the Online- (or Digital-) Media are growing.

FIG. 6 shows the distribution of the marketing budget in German companies in the year 2007 and 2012 with data from the respective DMM studies. It is clearly shown, that the distribution has not much changed in this 5 years besides a significant growth on spending for external Online Marketing.

FIG. 6: DISTRIBUTION OF MARKETING BUDGET IN 2007 AND 2012
Data source: deutsche post 2013



We will have a look on the differentiation of marketing budget between different companies size. The DMM study differentiates between four classes of companies by the yearly revenue: up to 250 Thousand Euro, from 0,25 Mio up to 1 Mio Euro, from 1 Mio up to 25 Mio Euro and up from 25 Mio Euro. In

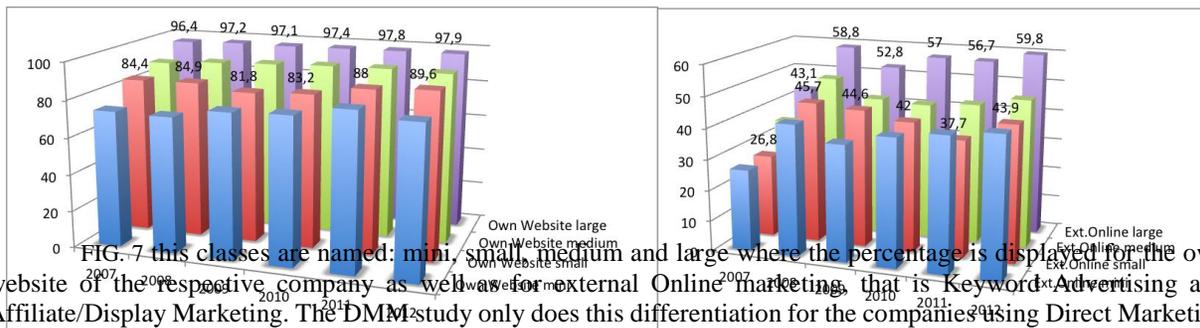


FIG. 7 this classes are named: mini, small, medium and large where the percentage is displayed for the own website of the respective company as well as for external Online marketing, that is Keyword Advertising and Affiliate/Display Marketing. The DMM study only does this differentiation for the companies using Direct Marketing media. Therefore the average of the four classes is significantly bigger then the respective value of

FIG. 4.

FIG. 7: PERCENTAGE OF COMPANIES IN GERMANY SPENDING MARKETING BUDGET FOR OWN WEBSITE/EXTERNAL ONLINE MARKETING.

Data from: deutsche post 2013

We see that over the last 5 years with more than 97% almost all large companies doing Direkt Marketing spend money for their own website, but more than 10% of small companies still miss this opportunity. In the important segment of external Online Marketing even 40% of these large companies and more than 55% of small companies still neglect these media. To see if the changes in marketing are sufficient we will have a closer look on the drivers of change.

2. Drivers of change

2.1. Changes in Technology

“Moore's Law”, a principle in technology innovation, found by Gordon E. Moore in 1965 is describing the development of semiconductor production: all 20 month the number of switching elements or transistor on the same area of a semiconductor chip is doubling. This principle is valid until today on a wide range of electronic components and devices (Lehmann 2012, Page 64ff.) and is causing an enormous raise of performance in technology. A modern Smartphone has an equal computing power as a High End Personal Computer 10 years ago for a tenth of the former price.

The same development affects the available bandwidth in mobile data transmission: in 1997 the GPRS technology enabled mobile phones to a mobile data upload of 171 kBit/s. The UMTS technology, established in Germany from 2007, raised this rate up to 14,4 Mbit/s, the current LTE technology introduced since 2012 up to 150 Mbit/s. Comparable to the devices performance gain is accomplished by price reductions, leading to wide availability of “Flat Rates” for mobile data transmission for as low prices as ca. 10 Euro per month in 2014.

2.2. Mobile Internet

FIG. 8 shows the number of smartphones sold in Germany over the last 4 years. We can roughly estimate that half of the smartphones sold in 2010 and 2011 are still in use and all of the smartphones sold in 2013. With this

estimation we have 61 million smartphones in use – this equals the size of German population between 10 and 70 years (Reitze 2014).

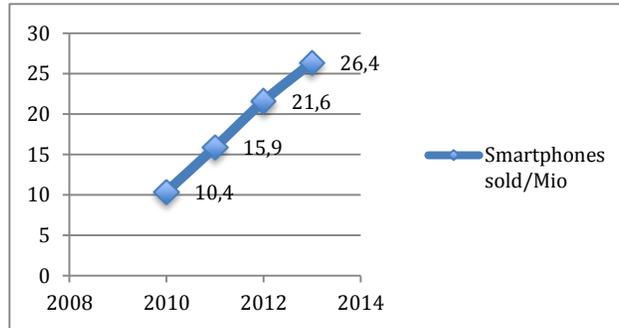


FIG. 8: SMARTPHONES SOLD IN GERMANY.
Data source: bitkom, 2013

The JIM study (Jugend, Information, Media 2014) analyses the media usage in the age group from 12 to 19 years in Germany. The results are, that with 96% in this age group almost all German teenagers own a mobile phone and for 72% of them this mobile phone is a Smartphone. Looking at the Internet usage and not at the hardware is a survey of HDE (Handelsverband Deutschland 2014). In the age group from 16-24 Years the mobile usage of the Internet has a peak by 81% in 2013, coming from 59% in 2012.

2.3.Changes in Internet Usage

The usage of Internet differentiates significantly between the age groups of the German population. FIG. 9 shows almost 100% up to the age of 39 years with an enormous decrease over 60 years.

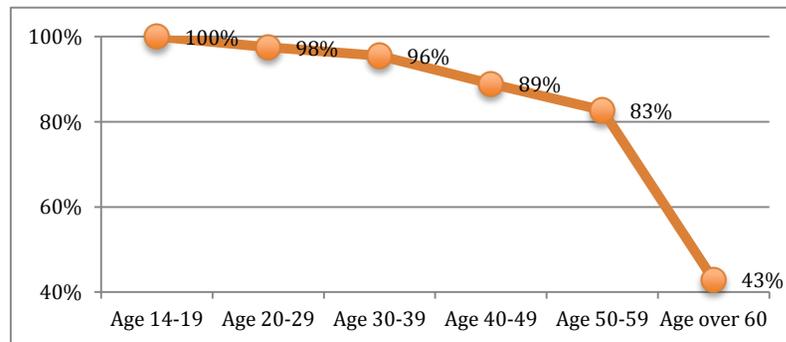


FIG. 9: INTERNET USAGE (OCCASIONAL) IN GERMAN POPULATION
Data from reitze 2014

But not only the quantity of usage differs. For marketing it is almost more important that the quality of usage also differentiates significantly over the age groups. FIG. 10 shows the differentiation in the usage of digital media between the age groups in the German population in 2013. Whereas the more traditional applications email

and search engine are almost equally common over the age groups, the „Web2.0“ applications like chat and online communities are clearly differentiated between the younger generation and the people over 30.

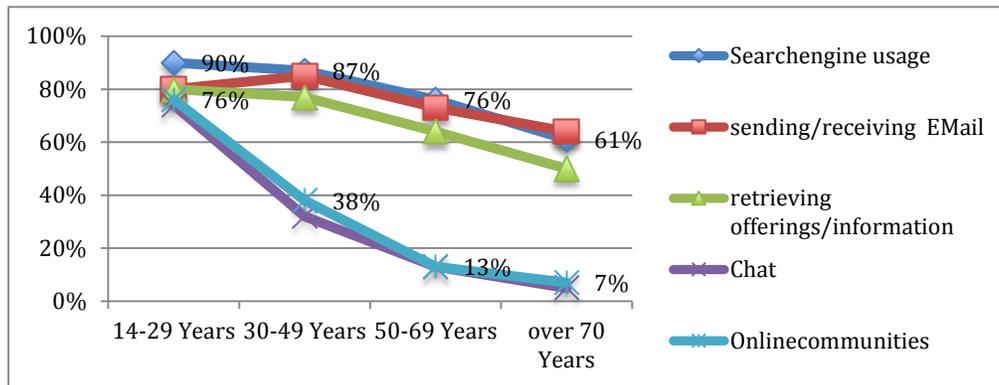


FIG. 10: DIFFERENTIATION OF INTERNET USAGE PER AGE GROUP
Data source: reitze 2014

Similar differentiation can be seen by the time spend for different media per day. A study about the media usage is „Media Perspektiven“, done by Hessischer Rundfunk in 2014. This study shows for 2013 for the first time in one age group that TV has lost it's first position in media time: the group of 14-29 years old consumed online in average 237min a day compared to TV 168min, whereas over all age groups the online time of 169min is still topped by the TV time of 189min. (Reitze 2014, Page 70 and 83)

2.4. Developments in Marketing

Classical marketing media as TV, radio and print advertising in magazines and journals developed with the mass media, the distribution of mass journals starting with the utilisation of rotary press printing by the London Times in 1869 (Glocker 2007, Page 199), radio from 1922 and Television from the 1941, both in New York (Americanradiohistory 1956). Coming from mass marketing the development is more and more to targeted marketing to reach smaller customer segments and with more personalised messages. Kotler called it: „Less broadcasting and more narrowcasting“. (Kotler 2008, Page 692)

This led to „Direct Marketing“, a term coined by Lester Wunderman in 1961 for „a new and more efficient method of selling, based on scientific advertising principles and serviced by increasingly more automated warehousing, shipping and collection techniques (Wunderman 1996, Page 159). Direct Marketing was first using the classical media like mail, but quickly changing to new, more suitable digital media when available.

The first WebSide „Banner“ in the World Wide Web was published in 1994 –by the telecommunication company AT&T copying direct print marketing to the Internet (Schwarz 2008). The new business model „Pay per Click“ changes the payment from the classical „contact price“, estimating the number of „viewers“, to „Click Prices“ with a payment only when the advertising is really having impact on the customer. The first „Affiliate“ marketing started in 1997 with Jeff Bezos, Fonder of –then- Startup „Amazon“ selling books for commission over third Web sides.

The next important step was the first „Key Word Advertising“ by „Goto.com“ in 1997 (Goodman 2010, Page 78). There are two unique success factors of Key Word Advertising caused by the special situation of the User when searching for particular key words:

- the attention filter everyone has in his mind is fully open to all information connected to this key words
- often this is exact the right moment in the buying decision process to influence the user.

Google started in 1998 revolutionising the search-engine market by their unique “Page Rank” method for delivering the fitting search results to the users key words. Google adapted the Key Word Advertising from Goto.com in their highly successful “Adwords” as key business model in 2002 (Lammenett 2010, Page 32).

The term “Web2.0” was first used by O’Reilly in 2004 for the “Web of participation”. Users add value, often „as a side effect of ordinary use of the application:.. the system gets better the more people use them“ (O’Reilly, 2005) . The best example for Web2.0 is Facebook, founded in 2004 and today claiming to have worldwide 1,2 Billion “monthly active user” and 757 Million “daily active users” (Facebook 2013). FIG. 11 shows the biggest Social Media sides in Germany, also with Facebook leading.

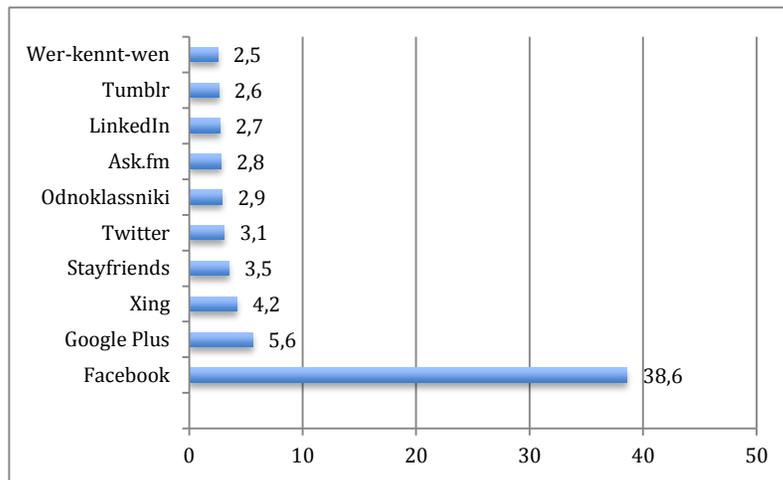


FIG. 11: SUBSCRIBERS OF SOCIAL MEDIA SIDES IN GERMANY IN MIO USER
Data source: comscore 2013

Social Media usage in Germany is very concentrated on Facebook, having more than six times more subscribers than the next biggest side Google Plus, as shown in FIG. 11. To reach consumers therefore Facebook is the right channel, for Business to Business marketing Google Plus and Xing also have some importance.

FIG. 12 shows the spending of German companies for digital marketing over the last 5 years. The efforts for the companies website and for external Online advertising are constantly growing. The efforts for Email marketing are decreasing over the last two years – probably because of the growing legal requirements for permission to send email to consumers.

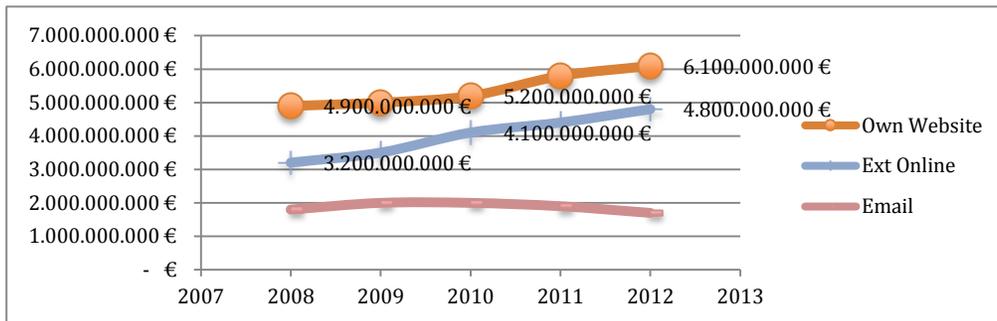


FIG. 12: COMPANIES SPENDING FOR DIGITAL MARKETING,
Data source: deutsche post 2013

3. New forms of marketing – mobile, location based

3.1. Possibilities of location based mobile Marketing

More and more potential customers have Smartphones – some target groups almost 100%, as shown in chapter 2.2. Almost 100% of Smartphones are equipped with GPS-Technology: Application on the smartphone can locate the consumer with an accuracy of 10m in open environment.

Newer Smartphones (Apple up from as IOS7, Android up from V4.3) can locate the User also in Buildings with the Beacon Technology: small near field sender (from 30 meter to 100 meter reach) can communicate with apps in smartphones when the customer is in reach. This technology also enables the transfer of data without any costs for the consumer – even without Internet flatrate.

Another method of accurate location is to use the build-in camera for scanning Labels and Tags. With this simple method build in Applications like “Shopstar”, the location is possible in buildings and to an accuracy of less than 1m.

3.2. New Start-Up for location based Marketing: Shopstar

Shopstar is a new Munich based start up company trying to bring the new possibilities of mobile and location based marketing to traditional „brick and mortar“ retailers.

The slogan from Shopstar is “We reward you for that, what you like to do most – go shopping!” (Shopstar 2014)

Shopstar is an intermediary between the mobile consumers and the stationary retailers

In February 2014 Shopstar has published Apps for Apple IOS and Android and opened for subscribing customers. As retail partners it has until yet won 5 retailers in Munich, which offer bonus points, called “Shopstars” for scanning their entrance – so bringing the consumers in the shops – and further scanning chosen products. The consumers can collect this “Shopstars” and change them later to a coffee in Starbucks or a gift card in their partner shops. If the consumers come near or in the shop they get via Beacon technology further information, special offers or services. Further bonus points are granted for scanning tags on chosen products in the partner shops.

So shopstar can reach the following targets:

- strengthen the stationary retail shops against competition of pure online shops by adding the mobile online shopping to the positive shopping experience onsite.
- Bringing the customers into the shop
- Getting permission of the subscribers to target the by sending Emails and SMS
- Getting Data from the subscribers about their online and physical shopping behaviour

4. Conclusion

The impact of Digital Marketing is growing significantly over the last years and will further raise with upcoming changes by demographic development new possibilities of using technology. German companies are not adapting sufficiently, with their distribution of marketing spending barely changing.

The urgency of this changes is clearly visible in the new Amazon Smartphone which was presented in the USA in June 2014: this innovative phone is able to recognise more then 100 Million objects by scanning them with it's cameras, analysing on Amazon Servers and showing immediatly further information including the price of this object when available in the Amazon shop with the option of "One-click-Buy" (SZ 2014). When this Phone will be delivered in Germany, the pressure on the "Brick-and. Mortar retailers will further rise.

So especially small companies are falling behind and are threatened by incumbents, which are using the new possibilities to a bigger amount.

References

- [1] Americanradiohistory 1956, Quarter-Century Report, Download from: <http://americanradiohistory.com/Archive-BC/BC-1956/1956-10-15-Quarter-Century-BC.pdf>
- [2] Bitkom 2013, BITKOM_Presseinfo_Smartphone-Markt_Deutschland_09_09_2013(1).pdf, Download: www.Bitkom.org
- [3] Comscore 2013, Download: https://www.comscore.com/Insights/Presentations_and_Whitepapers/2013/
- [4] Deutsche Post 2013, Dialog Marketing Monitor 200x - 2013, Download: <https://www.dialogmarketing-shop.de/studien-national/>
- [5] Facebook 2013, Facebook Annual report 2013, Download: <http://investor.fb.com/annuals.cfm>
- [6] Handelsverband Deutschland 2014, HDE, Download: www.einzelhandel.de/index.php/presse/zahlenfaktengrafiken/internetunde-commerce/item/123826-mobiles-internet.html
- [7] Initiative D21 2013, Download: <http://www.initiated21.de/portfolio/d21-digital-index/>
- [8] ISC 2014, Download: <http://www.isc.org/services/survey/>
- [9] Jugend, Information, Media (JIM) Study 2013, Medienpädagogischer Forschungsverband Südwest, Download: <http://www.mpfs.de/fileadmin/JIM-pdf13/JIMStudie2013.pdf>
- [10] GIM 2014, Download: <http://www.handelsdaten.de/statistik/daten/studie/76745/umfrage/umsatz-versandhandel-und-onlinehandel/>
- [11] Glocker 2007, Winfrid Glocker, Drucktechnik, Deutsches Museum 2007
- [12] Goodman 2010, Andrew Goodman, Google AdWords, Addison-Wesley 2010
- [13] Kotler 2008, Philip Kotler, Gary Armstrong, Principles of Marketing, Prentice Hall 2008, 5th European Ed.
- [14] Lamennett 2012, Erwin Lamennett, Praxiswissen Online-Marketing, Springer Gabler 2012, 3. Auflage
- [15] Lehmann 2012, Ralf Lehmann, Wandel von der Telekommunikation zur Unified Communications, Gabler 2012
- [16] O'Reilly 2005, O'Reilly, What is Web 2.0, Download: <http://www.oreilly.de/artikel/web20.html>
- [17] Reitze 2014, Media Perspektiven Basisdaten, Download: www.media-perspektiven.de
- [18] Schwarz 2008, Torsten Schwarz, Erfolgreiches Online Marketing, Haufe 2008
- [19] Shopbetreiber-blog 2014, Download: <http://www.shopbetreiber-blog.de/2014/02/24/umsatz-im-online-handel-erreicht-2013-fast-40-milliarden-euro/>
- [20] Shopstar 2014, www.shopstar.de
- [21] SZ 2014, Kuhn, Feuer frei, der Internethändler Amazon steigt ins Handy-Geschäft ein und will das Smartphone zur Einkaufsmaschine machen, in SZ 20.Juni 2014, Page 20
- [22] Wunderman 1996, Lester Wunderman, Being Direct, Random House 1996

**The Social Media Manager as the Reputation's gatekeeper.
An analysis from the New Institutional Theory perspective**

Andrea Moretti , andrea.moretti@uniud.it

Annamaria Tuan, annamaria.tuan@uniud.it

Department of Economics and Statistics, University of Udine, Italy

The Social Media Manager as the Reputation's gatekeeper. An analysis from the New Institutional Theory perspective

Abstract

By drawing on New Institutional Theory, the aim of this paper is to provide an overview on the Social Media Manager as a new professional figure who is gaining an active role in the management and control of the firm's reputation. Social Media have indeed increased direct interaction and dialogue across organizations and stakeholders, but, on the other hand, they have expanded the spectrum of reputational risks. In order to monitor and create a dialogue with stakeholder and to gain positive reputational effects, firms have to take into account the need of a specific professional role in charge of the Social Media Strategy on the behalf of organization. After having provided a classification of the Social Media Managers, we have highlighted how Social Media have reached the stage of diffusion in the S-shaped institutionalization process but they have not up until now reached the institutionalization phase yet.

Introduction

Social Media¹ have changed the way society communicates, learns and carries out business (Lewis and Nichols, 2012, Kietzmann et al. 2011). They have become an important communication platform in many organizations (Kaplan and Haenlein 2010, Laroche et al. 2013, Linke and Zerfass 2012, Vernuccio et al. 2012) and the centre of many marketing strategies (Kietzmann et al. 2011, Graffigna et al. 2012, Mangold and Faulds 2009, Pastore 2009). Thanks to the introduction of Social Media, the power of consumer-driven communication is transforming the way in which businesses communicate, thus leading to a "revolution" in corporate communication which is not a one-way communication anymore, where a message is controlled by a business and delivered to its audience, but an interactive, two-way communication (Cosenza 2012). As a result, Social Media have to be taken into careful consideration to exploit new business potentialities (Kaplan and Haenlein 2010, Romenti et al. 2014) because they allow firms to engage in timely and direct end-consumer contact at relatively low costs and higher levels of efficiency than those achieved through more traditional communication tools (Kaplan and Haenlein 2010, Mangold and Faulds 2009). Most managers consider Social Media as a highly efficient communication and distribution channel (Kaplan and Haenlein, 2010), as powerful means of influencing customer perceptions and behavior (Laroche et al. 2013, Williams and Cothrell 2000) and as a critical part in driving purchase intent as well as delivering brand engagement (Meadows-Klue 2008, Vernuccio 2014).

On the other hand the most common challenge for managers is to accept the lack of control associated with Social Media, not knowing what people might say or do (DiStaso et al. 2011).

In order to be fully developed, Social Media need a clear strategy and guidelines although, as suggested by Kietzmann et al. (2011) and Macnamara and Zerfass (2012), many executives are reluctant or unable to develop strategies and allocate resources to engage effectively with Social Media. The lack of policies or guidelines for Social Media strategy expose organizations to significant risks such as the release of confidential information, legal actions for defamation or damages and reputation damage.

One of the main risks related to Social Media is indeed that they expand the spectrum of reputation risks because they fuel new expectations or beliefs about organizations, to which organizations should respond. As a consequence, the Social Media Manager, or who deals with Social Media networking and marketing on the behalf of organizations as an employee or as a consultant, is gaining an active and important role for firms.

Even though firms are increasing the adoption of Social Media in their communication strategies and this phenomenon has received attention in the practitioner literature, it has, however, remained under-investigated in scholarly research (Garrigos-Simon et al. 2012, Mancamara and Zerfass 2012, Mangold and Faulds 2009, Vernuccio, 2014).

¹ Social Media are a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and Exchange of User Generated Content" (Kaplan and Haenlein, 2010, p. 61)

In this paper, by relying on a literature review, after having gained insights about the reputational risks in the Social Media landscape, we provide a classification of the emerging figures who deal with Social Media and who can be seen as new professional roles inside or outside a company (freelance or consultants)².

Considering the problems in giving a clear definition of Social Media Manager, by drawing on New Institutional Theory, we try to develop a framework in order to understand whether Social Media Managers require the institutionalization of Social Media or not in order to become legitimate professionals as the other functions in an organization (e.g. CFO, CCO). On the basis of our findings, we argue that Social Media have not become institutionalized yet but they have reached the stage of diffusion. The paper concludes with several research and managerial implications.

1. Theoretical background

1.1 Reputational risks in Social Media

Reputation is defined as “stakeholders’ perceptions about an organization’s ability to create value relative to competitors” (Rindova et al. 2005, p. 1033) and it is viewed as an intangible asset that provides a firm with sustainable competitive advantage. “Building reputation with key stakeholders can lead to market growth and the uncovering of new market opportunities” (Waddock and Googins 2011, 28). Hall (1992) found that CEO’s consistently ranked corporate reputation as the most important key intangible resource.

Numerous studies have analyzed the topic of reputation from different perspectives, such as management, economics, sociology and marketing and institutional theory.

From the institutional theory perspective, reputation represents how a stakeholder group perceive a firm and it is formed as a result of information exchange and social influence among various actors interacting in the organizational field (Rao 1998, Rao et al. 2001, Stuart 2000). Since Social Media are platforms based on information exchange where many actors can share ideas and opinions about the company, the products and the activities, we will rely on the institutional perspective to analyze how Social Media can influence firm’s reputation.

Institutional theory focuses on the context and it is used to examine how firms gain legitimacy and cultural support within their institutional contexts to build their reputation (Walker, 2010). “Reputation risk presents a threat to organizations in many ways. The loss of reputation affects competitiveness, local positioning, the trust and loyalty of stakeholders, media relations, and the legitimacy of operations, even the license to exist.” (Aula, 2010, p. 45).

As suggested by Kietzmann et al. (2011), “reputation has significant implications for how firms should effectively engage social media” (246) because they expand the spectrum of reputation risks by fuelling new expectations or beliefs about organizations, to which organizations should respond. Reputation is indeed one of the seven building blocks of the Social Media honeycomb framework provided by Kietzmann et al. (2011)³ and it could be defined in different ways: for example on Twitter as “the number of followers”, on YouTube “the number of views” and so on.

In order to avoid reputational risks and to try to engage stakeholders, Social Media implies an effort for firms. They should take in consideration the need of a specific key professional role in charge of Social Media strategy on the behalf of organization: the so-called Social Media Manager. In base of our findings⁴, academic literature has not

² Only 30% of businesses are outsourcing some portion of their Social Media Marketing, a very slight increase from 28% in 2011 (Selzner 2012)

³ Kietzmann et al. (2011) presented a framework that defines Social Media by using seven functional building blocks: identity, conversations, sharing, presence, relationships, reputation, and groups.

⁴ The following online journal databases were searched to provide a comprehensive bibliography of the academic literature published during from 2000 to 2014: Emerald Fulltext, Scopus Science Direct, Google Scholar. The literature search was based on the following descriptors: social media, social media manager, social media marketing, social media management, social customer relationship management, web 2.0, social media strategy. We decided to exclude from the analysis journals dealing with education, tourism management and health care, taking into consideration mostly marketing, public relations and management journals strictly correlated with the aim of the paper (Business Horizons; Database Marketing & Customer Strategy Management; European Journal of Marketing; International Journal of Strategic Communication; Journal of Computer mediated Communication; Journal of

investigated the specific role of this kind of professionals, their skills, the individual characteristics and the specific role in an organization yet, as in the case of Corporate Communication managers or other managerial functions.

1.2 New Institutional Theory and Social Media Management

Given that it is quite difficult to define the Social Media Manager and to identify the role and identity, we suggest to adopt New Institutional Theory in order to understand if Social Media Managers need an institutionalization of Social Media or not in order to be fully qualified and legitimated as in the case of other managerial roles inside firms (e.g. CEO, CFO, CCO)⁵.

Scholars tend to equate institutional effects in diffusion as institutionalization but, as suggested by Colyvas and Jonsson (2011), diffusion is concerned with spreading, how things flow, institutionalization is concerned with stickiness, how things become permanent and self reproduced. Indeed “the ubiquity of a practice may suggest that it has become widely accepted but activities that diffuse may never develop a foundation that enables them to persist” (Colyvas and Jonsson 2011, p. 27). Scholars have investigated and provided evidence of an ongoing process of institutionalization of corporate communication function – defined by Invernizzi (2008) as the “widespread and increasing importance of PR/Communication at strategic and operational management levels of large organization” - adopting New Institutional Theory in order to understand its core functions better (Invernizzi and Romenti 2009, Grandien and Johansson 2011, Sandhu 2009). Using this perspective scholars have highlighted the embeddedness of the communication function, the actions of communication professionals in organizing structures and the influence of institutional frameworks on organizations (Grandien and Johansson 2011).

Also in the European Communication Monitor (ECM) the professional practice of public relation/corporate communication is approached from the theoretical perspective of new institutionalism (Moreno et al. 2010). In this perspective, “public relation becomes more institutionalized until it finally becomes a condition for obtaining social legitimacy for the activities of the organization” (Moreno et al. 2010, p. 98).

New Institutionalism argues that the behavior of social actors is driven by contextual factors, societal scripts and schemas. Organizations follow such rules of appropriateness in order to gain legitimacy⁶ for their actions (March and Simon 1993, Meyer and Rowan 1977). The process “by which a given set of units and a pattern of activities come to be normatively and cognitively held in place, and practically taken for granted as lawful” is called institutionalization (Meyer et al. 1990, p. 10). Traditional models of institutionalization are typified by the S-shaped diffusion curve (Powell and DiMaggio 1991) but they mask a variety of temporal patterns in base of the pace of the institutional process and the stability of the institutions produced (Lawrence et al. 2001).

Diffusion studies generally investigate the introduction and the widespread of an innovation in the society (Strang and Soule 1998) and the motivations of adoption of a new practice assuming that organizations adopt practices in order to improve their performance (i.e. rational-instrumentality logic) and to appear legitimated to powerful evaluators (i.e. social appropriateness logic). As a result, institutional motives of adoption are clearly present in later phases of diffusion.

Tolbert and Zucker in 1983 have developed a two stage model in which early adopters search the efficiency, the technical or managerial benefits the practice could provide to their activities, by contrast, late adopters gradually choose to adopt a practice to obtain social legitimacy.

Communication; Journal of Marketing; Journal of Marketing Management; Journal of Mass Communication Quarterly; Journal of Interactive Marketing; Journal of Marketing development and competitiveness; Long Range Planning; Management Decision; Mercati & Competitività; Micro & Macro Marketing; Public Relation Review; Public Communication Review; Sinergie; The Electronic Library). It is interesting to see that a scant literature on top journals is dedicated to these arguments. The total ranked articles are more than 200.

⁵ or as other professional figures (e.g. lawyer, accountant)

⁶ Legitimacy is a central concept in new institutional theory since its foundation in 1977. It is a “generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed systems of norms, values, beliefs and definitions (Suchman 1995, p. 574).

The model developed by Greenwood et al. (2002) outlines six stages of institutional change which could be useful to analyze the development and the increasing adoption of Social Media by firms and to read the emergence of the figure of the Social Media Manager as an institutional change.

Stage I occurs when events or “jolts” (Meyer, Brook and Goes 1990) destabilize established practices. In the case of Social Media, these jolts take the form of technological disruptions and also social upheaval. As we have seen before, the worlds of businesses and consumers are increasingly overlapping. Facilitated by the explosion of social media and the possibility of interaction, consumer and business co-create brands and companies use social media to support the creation of brand communities or for marketing research thanks to the information and knowledge produced and shared by users for free. Therefore we reach the Stage II (Deinstitutionalization), in which “new players”, “existing actors” or “local entrepreneurs” disturb the constructed field-level consensus by introducing new ideas and thus the possibility of change. We can assume that the emergence of the figure of the Social Media Manager could be viewed as a *new player* if he works as a consultant, as an *existing actor* if he comes out from the communication/marketing team, inside the organization, or as a *local entrepreneurship* if he is a freelance. These professional figures develop the Social Media strategy changing the traditional practices and offering opportunities to interact with a wide range of stakeholders (employees, customers, competitors, suppliers, investors, the media) in an easier, faster and more efficient way.

In the III stage, Preinstitutionalization, organizations innovate independently, seeking technically viable solutions to locally perceived problems. Social Media Managers develop their strategies in order to innovate and gain consensus inside society listening to the voice of customers and involving them thanks to Social Networking Sites or Content Communities (Kaplan and Haelein 2010). Customer engagement turns customers into fans and social media allow fans to connect with other increasing mutual satisfaction and advocacy (Sashi 2012).

After the Preinstitutionalization we can reach the Theorization (stage IV), which is the development and specification of abstract categories and the elaboration of chains of cause and effect.

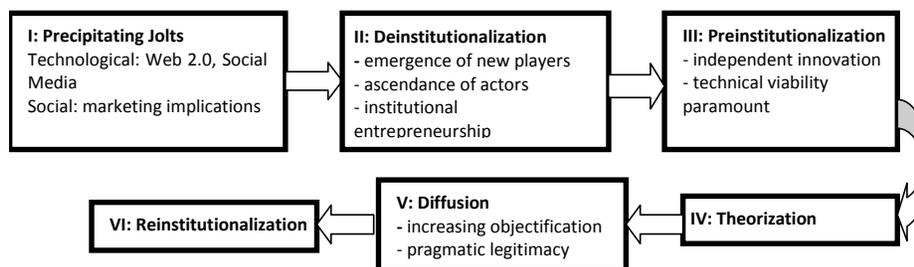


FIGURE 1: STAGES OF INSTITUTIONAL CHANGE

Source: adapted from Greenwood et al. (2002)

It is possible to identify, firstly, at least two processes of theorization connected with the phenomenon of Social Media. The first is the process through which consumers give their personal information for free allowing firms to interact with them in a more direct and personal way. Thanks to brand communities – “a group of ardent consumers organized around the lifestyles, activities and ethos of the brand” (Fournier and Lee 2009) – users can share information and experiences regarding a certain product. From the point of view of firms, this information provide marketers with a means for identifying consumer needs and promoting brand loyalty involvement, with a cost efficient way to retain customers and strengthen relationships (Casalo et al. 2008, Sica and Scotti 2007).

The second contribution of theorization is related to the concept of “crowd” (e.g. crowdsourcing, crowdfunding) where the access and the autonomous, shared usage of knowledge and of resources (e.g. human, capital, social) could be the reasons to adopt Social Media. In this perspective firms could operate as platform enabling crowd experience by users (and/or community members) and value production guided by the crowd itself.

Successful theorization is followed by diffusion (stage V). As innovations diffuse they become objectified, gaining social consensus concerning their pragmatic value and thus diffuse even further. Full institutionalization (stage VI) occurs when the density of adoption provides idea with cognitive legitimacy and ideas can survive across generations, uncritically accepted as the definitive way of behaving (Greenwood et al. 2002).

The difference between diffusion (stage V) and institutionalization (stage VI) is well defined by the matrix provided by Colyvas and Jonsson (2011). “The quadrants indicating low or high levels represent both the behavioral elements of diffusion (how widespread a practice or organizational structure has become) and the cultural and cognitive aspects of institutionalization (how legitimate it is).” (Colyvas and Jonsson, 2011, p. 28).

TABLE 2: MATRIX COMPARING DIFFUSION AND INSTITUTIONALIZATION
Source: adapted from Colyvas and Jonsson (2011)

		Institutionalization	
		No	Yes
Diffusion	Yes	Ubiquitous but not accepted	Widespread, conventional, appropriate
	No	Uncommon and inappropriate	Accepted, but not prevalent

Since the practices which are not diffused are rarely studied, we will focus our attention on the upper cells. The upper right cell represents practices both diffused and institutionalized. For example, human resource management departments are now commonplace in organizations, so much so that we hardly question their existence (Dobbin and Kelley 2007).

The upper left cell represents practices that are common but not accepted yet. Even more firms are aware of the benefits related to the adoption of Social Media⁷ but the practice to have a Social Media Manager who deals with these tools inside the company has not been institutionalized yet. According to Schwartzmann et al. (2009), indeed, the public relations/corporate communication department⁸ has widely become the department which is responsible for organizing and maintaining a company’s Social Media presence, followed by Marketing Department and IT Department. Also Owyang’s report (2011) claims that Social Media teams reside mostly in marketing department (40%) and Corporate Communication/PR (26%). We can therefore state that the presence of a Social Media Manager could be considered as a common practice that has reached the level of diffusion in the S-shaped curve but not the institutionalization level.

2. The roles of the Social Media Manager

After having developed the theoretical background on which we rely, in this paragraph we are going to specify the roles of the Social Media Manager.

Given that the figure is not well defined in the academic literature, we can argue that the Social Media Managers or who deals with Social Media on behalf of the organization can be considered as a middle manager. Middle manager, indeed, are often closer to external stakeholders than are top managers (Dutton, Ashford, Neill, and Hayes, 1997). They “perform a co-ordinating role where they mediate, negotiate and interpret connections

⁷ According to Seltzner’s study (2012), a significant 83% of marketers claim that Social Media are important for their business and that the top three benefits of Social Media marketing are the following: generating more business exposure, increasing traffic, providing marketplace insights.

⁸ Until the 1970s, practitioners have used the term “public relations” to describe communication with stakeholders, largely consisting in communication with the press. When also other stakeholders started to demand more information from the company we can see the roots of the corporate communication function. “Corporate Communication is a management function that offers a framework for the effective coordination of all internal and external communication with the overall purpose of establishing and maintaining favorable reputations with stakeholder groups upon which the organization is dependent” (Cornelissen, 2008, p. 5).

between the organization's institutional strategic and technical operational levels" (Floyd and Wooldridge, 1997). Floyd and Wooldridge (1997) articulated four strategic roles of middle managers: the traditional role springs from thinking that is consistent with existing strategy and from attempts to integrate subordinates' activities around this strategy. They have also a role of synthesizers who interpret information and channel it to top management and of champions because they try to reshare upper management's concept of strategy. As facilitators, "they encourage organizational actors below and around them to engage in idea generations and other experiential efforts"(Wooldridge, Schmid, and Floyd 2008, p. 1203).

Social Media Managers, indeed, on one hand, have to communicate the firm's strategy to external stakeholders and, on the other hand, they have the role to react to stakeholders comments and needs in order to avoid reputational attacks.

Grey literature⁹ or practitioner literature provide many definitions which try to summarize the roles and the skills of the manager who deals with Social Media. In Table 1 we present both the contributions provided by Owyang (2011), Xhaet (2012) and IWA (2013) and our classification. Since we have noticed some common elements among the profiles provided by previous authors, we have classified them in four areas which represent, in our opinion, the main tasks of the Social Media Manager: analysis, content development, strategy and community management. Then, we have associated a label to each group in order to summarize the four main roles of the Social Media Manager:

- *Social Analyst*: for a Social Media Manager it is very important to monitor and to analyze the power of an effective Social Media program in terms of its ability to generate positive buzz about a firm's, its goods and services (Castronovo and Huang 2012). The importance of the discipline "social media analytics" is increasing with the aim to help firms to measure, evaluate the performance of Social Media strategy and provide useful insights in order to improve firm's strategy (Owyang 2011, Cosenza 2012). A lot of analytical tools are provided to measure the performance of each Social Networking Site (Cosenza 2012).
- *Content Manager*: in order to develop a relationship with users, content has to be always fresh and dynamic. Managers have to engage in discussions, beyond responding to negative comments and defending product offerings, but allowing users to become "prosumers" (Toffler 1980)
- *Social Media Strategist*: it is crucial for firms to have a set of guidelines that can be applied to any form of Social media (Kaplan and Haenlein 2010, Macnamara and Zerfass 2012); the Social Media Manager should develop a clear strategy in order to know how to react to a question or to a crisis situation. In addition, as suggested by many scholars, integration among social media and traditional media is the key. Bruhn et al. (2012) have demonstrated that traditional media exert a stronger impact on brand awareness whereas Social Media on brand image. Therefore, "the joint implement of these different communication instruments offers opportunities for further increasing brand equity" (Bruhn et al. 2012, p. 781).
- *Community Manager*: is the spokesman of the community, he has the role of enhancing the enthusiasms of the community by ensuring a good relationship between companies and communities. He/she has to improve organization's marketing activities, promote products and events, and improve the organization's reputation by enhancing the participation and collaboration of a variety of stakeholders in order to improve some "crowdsourcing" processes at different points of the value chain (Garrigos-Simon et al. 2012). Ang (2011) has introduced the term Community Relationship Management (CoRM), in order to overcome the limits related to the topic of Social CRM. The last one is related to customers, CoRM highlights a more generic community because it reflects more accurately what people do in online communities - connect, converse, create and collaborate (Nadeem, 2012, Micelli, 2010).

As we can see, it is quite difficult to provide a clear and unique definition of the manager in charge of Social Media because Web 2.0 is a transforming and ongoing world that needs a lot of skills, experiences and practices.

⁹ A list of documents which can be reached by surfing web using key words.

In most small and medium enterprises the four roles should be integrated in one person, given the time and resources restrictions. In big firms, as suggested also by Owyang (2011) we can have a Social Media Team which deal with Social Media from different perspectives.

TABLE 1: CLASSIFICATION OF SOCIAL MEDIA MANAGERS

	Owjang (2011)	Xhaët (2012)	IWA (2013)	Our classification
Analysis	<p>Social Analyst: by using brand monitoring, social analytics, web analytics, and traditional marketing tools, he is responsible for measurement and reporting across the entire program and for individual business units.</p>	<p>E-reputation manager is specialized in the analysis of online word of mouth by managing and interpreting linguistic and semantic elements; Web analyst reads, evaluates, compares analyses in order to adapt and improve strategy and metrics; SEO (Search Engine Optimizer) provides the project with the highest online visibility, especially on search engines.</p>	<p>Web project manager is responsible of the project, plans and coordinates all the activities, therefore has to monitor constantly time, costs, quality, risks and results.</p>	<p>SOCIAL ANALYST</p>
Content	<p>Social Media Manager: this role coordinates business units to launch Social Media initiatives. The Social Media manager may straddle internal and external communications, direct resources, and formulate program plans.</p>	<p>Transmedia web editor: is the person in charge of the web contents. He uses a particular voice, an unmistakable style, which is the result of an ongoing work of refinement. Content Curator is the person in charge of the filtering and aggregation of online information.</p>	<p>The Web Content Specialist deals with contents, texts and multimedia and pays attention to the target and the platform which is going to be used. He has also to monitor the usability of the website and customer satisfaction.</p>	<p>CONTENT MANAGER</p>
Strategy	<p>Corporate Social Strategist: responsible for overall vision and accountability towards investments. The strategist is primarily internally-facing and rallies business units.</p>	<p>Digital PR is the evolution of the PR in the digital world. He integrates online and offline in order to gain and maintain relationships; All-line advertiser is the person in charge of online promotion tools even though offline channels must not be forgotten.</p>	<p>Digital strategic planner: supports the strategic choices of the top management and give inputs to the other professional figures involved in the process.</p>	<p>SOCIAL MEDIA STRATEGIST</p>
Community	<p>Community Manager: Is the manager who deals with the online community. He/she has to develop empathy with the community in order to involve and engage stakeholders.</p>			<p>COMMUNITY MANAGER</p>

3. Discussion and conclusion

Despite the fact that Social Media provide a very unique and cost-effective way for business to communicate with a large body of consumers and that they have improved the way in which companies communicate, the development of Social Media strategy, as examined before, could be considered as a common practice that is not been legitimated yet, that has reached the level of diffusion in the S-shaped curve but not the institutionalization level. We can consider the Social Media Manager as a new player if he works as a consultant, as an existing actor if he comes from the communication/marketing team, inside the organization, or as a local entrepreneurship if he is a freelance. These

professional figures develop the Social Media strategy by changing the traditional practices and offering opportunities to interact with a wide range of stakeholders (employees, customers, competitors, suppliers, investors, the media) in an easier, faster and more efficient way (Castelló et al. 2013, Driessen et al. 2013, Schultz et al. 2013).

The analysis and the classification of the roles of the Social Media Manager have identified the competences which characterize the figures. As we have seen, the Social Media Manager can have different roles inside the organization. He/she can develop the analysis, the strategy, create the content or manage the community. Since most of the Italian firms are small and medium enterprises, Social Media are usually managed by only one person. It is quite difficult that Social Media are managed by teams. Nevertheless, Social Media Managers assume an important role because, if we considered them as middle manager, they stand between the company and the stakeholders and they represent a filter from the inputs received by the stakeholders and the firm.

As regard the reputational risks related to Social Media, every professional profile has a specific role on the reputation's management.

The *Social Analyst*, by analyzing and monitoring what happens on Social Media, has to monitor stakeholder's perceptions through an analysis of online conversations and act upon possible misunderstandings in order to save the reputation of the firm and to adopt the most efficient strategies. As before mentioned, the dark side of Social Media is that individuals can create and widely distribute unsubstantiated accusations about an organization. As a consequence, if the content goes viral, spreading exponentially through social networks, it can cause an organizational crisis (Ulmer, Sellnow and Seeger 1998). For example, one of the most cited case study is the Domino's pizza case (Veil et al. 2012). Back in 2009 they found themselves launched into a viral attack when two employees in their Conover N.C. franchise uploaded a video to Youtube of themselves doing disgusting things to a sandwich before it went out on delivery. They quickly set up a Twitter account to respond and reassure customers that this was an isolated incident and that they were in the process of taking the necessary measures to correct it. Immediately after Dominos released a brilliant official response to the crisis via Youtube, the same channel used before by the employees in order to counter the hoax message for the same audience that received it.

The *Content Manager*, on the other hand, has to think about the most suitable content for each channel used by the firm. In order to avoid reputational risks, the underlying message has to be the same but each social media requires different contents. As suggested by Mangold and Faulds (2009) Social Media are a "hybrid component of the promotional mix" and therefore have to be incorporated as an integral part of the organization's Integrated Marketing Communication strategy. For example Dove campaign for Real Beauty (Singh and Sonnenburg 2012) started with "The Evolution Spot" on YouTube which showed a normal looking woman being transformed into the stereotype of a beautiful woman. Following the success gained, the campaign expanded into other media: to its own Internet website inviting women to discuss beauty, on Facebook allowing to post pictures, as well as offline through tv spots and print advertisements.

The *Social Media Strategist* will develop the strategy by taking into account the risks and the benefits related to each Social Media. Kietzmann et al.'s framework (2011) will help managers to choose the most efficient Social Media in relation to their objectives. Even if the most popular Social Media is Facebook, as suggested by Cosenza's Social Media Positioning Map (2012, p.223), Facebook is useful to improve relationships with a large audience without any specific interests, therefore it is located within in the space "delocalization conversation". On the other hand LinkedIn is more suitable to stimulate focalized conversations about specific topics with a niche-public (Cosenza 2012, Kietzmann et al. 2011). As suggested by Cosenza (2012) one of the key elements of Social Media Strategy definition is given by the positioning on the Social Media Map in order to "allocate resources to engage effectively with social media" (Kietzmann et al. 2011, p. 242). For example, an Italian multiutility has decided to not join Facebook or Twitter since they are not considered as strategic tools for the company, given the industry in which they are involved (Moretti and Tuan 2013). They have created a LinkedIn page which enable them to manage a more direct and formal approach with potential employees and with stakeholders in general.

The *Community Manager* has an important role to understand the needs and the opinions of different stakeholders. Even more companies are using co-creation and innovation communities to involve consumers in company's development processes and increase loyalty (e.g. Gebauer et al. 2013, Fuller 2010). On the other hand, communities need an ongoing management because they can also evoke angry reactions, as happened for example for Henkel in Germany. Engaged participants were not satisfied with the selected winners of the label design contest and

they reacted with negative word of mouth. In cases like this, the Community Manager has to react immediately to manage consumers' complaints by developing a rich and open dialogue with the community (Varey and Ballantyne 2006). As a consequence, as suggested by Walker (2010), even if reputation is viewed as an aggregate perception of all stakeholders, it should be measured for each stakeholder group because it differs from one to another.

Nevertheless, in this paper we have focused the attention on the reputation but it represents only one of the topics which can be related to the Social Media Manager. As before suggested, Social Media are not only a communication tool but they should be considered as a phenomenon which needs to be placed within an economic and managerial perspective: the evolution of the production of value based on knowledge which is created, disseminated and shared, where ICT plays a role of enabling drivers (Rullani 2004a, 2004b).

It would be interesting to analyze if the presence and the activities of the Social Media Manager have an impact, for example, on the customers' loyalty and on the stakeholder relations, on the firm's financial performance and on the attractiveness to potential employees.

In this context, in order to allow a complete understanding of the role of Social Media Manager, we suggest at least two future research paths dealing with:

- the training processes of Social Media Managers;
- the management and control of Social Media Managers by firms.

Considering the first path, we need to identify which kind of elements are functional to the training process of Social Media Managers. A first list of elements could be the following: mono or plural dependency relations from firms; single or multiple industrial experience and operations; contemporary presence of plural projects in different stages of Social Media development.

For example it could be interesting to know if a value added element is given by the fact that a Social Media Manager is a freelance working with more than one firm or if the multi-dependency generates bad results in terms of community management or users engagement. Another aspect to be taken into careful consideration, when dealing with training, is given by the variety of industrial/territorial/genre setting in which a manager is involved. A Social Media Manager needs to operate in different industries to be able to be legitimated in terms of its role, or on the contrary is it more important to have a multiple presence in the same industry to be legitimated?

Does a Social Media Manager improves its performance if he is involved in projects characterized by different evolutionary step or it more effective working in similar project (e.g. all start-up community sites)?

These kinds of questions have important managerial implications which could be better investigated through clinical interviews with those who identify themselves as Social Media Managers.

With regard to the second path, the management of the Social Media Manager has important implications for the firm's strategy. We can have Social Media Manager inside a firm, inside a consultancy agency, inside an ICT company, or they could be freelance working for more than one company. If we do not know their organizational role, hierarchical dependency, contractual performance management, we could have problems in term of their management. The possibility of incongruity between the aim of Social Media strategy and the organizational position of the Social Media Manager may negatively affect the SM strategy.

It is also possible to highlight how a clear understanding of the characteristics of the role (internal, external agencies and/or other) can be achieved through a good integration with the definition of the specific duties and responsibilities of this kind of condition. For example, how can the contributions to the achievement of the results of a Social Media strategy given by a Social Media Manager working in a communication agency be measured? Which are the levers which a Social Media Manager can deploy when he/she is internal or external to the company? Which are the specific timing relationships between Social Media Managers and the business? For example, if a Social Media Manager working for a communication agency goes free lance, do the clients who are loyal to him/her become a "personal asset" of the manager or, on the contrary, is the Social Media Manager simply replaced?

This paper is the first step of an explorative process which needs to deepen the aspects related to further analytical empirical implications. The two areas of empirical research on Social Media Manager and the paths of development which have been previously identified, are the aim of further research in this area. The lack of Databases on professional figures which are, or can be identified as Social Media Managers, represents the main difficulty in developing the second research path. Therefore the first stage of development of future research will consist in a

number of specific researches (through clinical interviews, observed participation) concerning operators who are already available and play a key role in companies with regard to the topic.

References

- [1] Ang L. (2011), Community relationship management and Social Media, *Database marketing and customer strategy management*, 18(1), 31-38.
- [2] Aula, P. (2010). Social media, reputation risk and ambient publicity management, *Strategy & Leadership*, 38(6), 43–49.
- [3] Bruhn M., Schoenmueller V. Schäfer D.B. (2012), Are social media replacing traditional media in terms of brand equity creation?, *Management Research Review*, 35(9), 770 – 790
- [4] Casalo L.F.C. and Guinliu M. (2008), Promoting consumer's participation in virtual brand communities: A new paradigm in branding strategy, *Journal of Marketing Communications*, 14(1), 19-36.
- [5] Castelló, I., Morsing, M., & Schultz, F. (2013). Communicative Dynamics and the Polyphony of Corporate Social Responsibility in the Network Society. *Journal of Business Ethics*, 118(4), 683–694.
- [6] Castronovo C., Huang L., (2012) Social Media in an Alternative Marketing Communication Model, *Journal of Marketing Development and Competitiveness*, 6(1), 117 - 134
- [7] Colyvas J., Jonsson S. (2011), Ubiquity and legitimacy: disentangling diffusion and institutionalization, *Sociological Theory*, 29(1), 27-53
- [8] Cornelissen J. (2008), *Corporate Communication: a guide to theory and practice*, SAGE Publications
- [9] Cosenza V. (2012), *Social Media ROI*, Apogeo
- [10] DiStaso M., McCorkindale T., Wright D. (2011), How public relations executives perceive and measure the impact of Social Media in their organizations, *Public Relations Review*, vol 37, p. 325-328
- [11] Dobbin, F., Kelly E. (2007), How to Stop Harassment: The Professional Construction of Legal Compliance in Organizations." *American Journal of Sociology* 112:1203–1243
- [12] Driessen, P. H., Kok R.W., Hillebrand, B. (2013). Mechanisms for stakeholder integration: Bringing virtual stakeholder dialogue into organizations. *Journal of Business Research*, 66(9), 1465–1472.
- [13] Dutton, J. E., Ashford, S. J., Neill, R. M. O., & Hayes, E. (1997). Reading the wind: how middle managers assess the context for selling issues to top managers. *Strategic Management Journal*, 18(5), 407–425.
- [14] Floyd, S. W., & Wooldridge, B. (1997). Middle management's strategic influence and organizational performance, *Journal of Management Studies*, 34(3), 465–485.
- [15] Fournier S., Lee L. (2009), Getting brand communities right, *Harvard Business Review*, n. 87 (April), 105-111
- [16] Fuller, J. (2010) Refining virtual co-creation from a consumer perspective. *California Management Review*, 52, 98–122.
- [17] Garrigos-Simon F., Alcamí R.L., Ribera T.B. (2012), Social networks and Web 3.0: their impact on the management and marketing of organizations, *Management Decision*, vol. 50, n. 10, 1880-1890
- [18] Gebauer, J., Fuller, J., & Pezzeri, R. (2013). The dark and the bright side of co-creation: Triggers of member behavior in online innovation communities. *Journal of Business Research*, 66(9), 1516–1527.
- [19] Graffigna G., Ravaglia V., Brivio E. (2012), Quando i brand diventano influential su Twitter: creare brand engagement con strategie di comunicazione virale, *Micro & Macro Marketing*, n. 2, 237-256.
- [20] Grandien C., Johansson C. (2011), Institutionalization of communication management in organizations – a theoretical framework, *Corporate Communications: an international Journal*, vol. 17, n. 2.
- [21] Greenwood R., Suddaby R., Hinings C.R. (2002), Theorizing change: the role of professional associations in the transformation of institutionalized fields, *Academy of Management Journal*, vol. 45, n. 1, 58-80.
- [22] Hall, R. (1992). The strategic analysis of intangible resources. *Strategic Management Journal*, 135–142.
- [23] Invernizzi E., Romenti S. (2009), Institutionalization and evaluation of corporate communication in Italian companies, *International Journal of Strategic Communication*, vol. 3, n. 2, 116-130.
- [24] International Webmaster Association (IWA) (2013), G3 Web Skills Profiles, retrieved from <http://www.skillprofiles.eu/stable/g3/2013-02-14.pdf>
- [25] Kaplan A., Haenlein M. (2010), Users of the world, unite! The challenges and opportunities of Social Media, *Business Horizons*, 53, 59.68.

- [26] Kietzmann J.H. Hermkens K., McCarthy I., Silvestre B.S. (2011), Social Media? Get serious! Understanding the functional building blocks of Social Media, *Business Horizons*, 54, 241-251.
- [27] Laroche M., Habibi M.R., Richard M. (2013), To be or not to be in Social Media: how brand loyalty is affected by Social Media?, *International Journal of Information Management*, 33, 76-82.
- [28] Lawrence T.B., Winn M., Jennings P. (2001), The temporal dynamics of institutionalization, *Academy of Management Review*, 26(4), 624-644.
- [29] Lewis B.K., Nichols C. (2012), Attitudes and perceptions about Social Media among college students and professionals involved and not involved in strategic communications, in Noor Al-Deen H., Hendricks J.A., *Social Media: usage and impact*, Lexington Books.
- [30] Linke A., Zerfass A. (2012), Future trends in Social Media use for strategic organization communication: results of a Delphi study, *Public Communication Review*, vol. 2, n. 2.
- [31] Macnamara J., Zerfass A. (2012), Social Media communication in organizations: the challenges of balancing openness, strategy and management, *International Journal of Strategic Communication*, vol. 6, n. 4, 287-308.
- [32] Mangold W.G., Faulds D.J. (2009), Social Media: the new hybrid element of the promotion mix, *Business Horizons*, n. 52, 357-365.
- [33] March J.G., Simon H.A. (1993), *Organizations*, Blackwell, Oxford
- [34] Meadows-Klue D. (2008), Falling in love 2.0: relationship marketing for the Facebook generation, *Journal of Direct, Data and Digital Marketing Practice*, vol. 9, n. 3, 245-250.
- [35] Meyer A.D., Brooks G.R., Goes J.B. (1990), Environmental jolts and industry revolutions: organizational responses to discontinuous change, *Strategic Management Journal*, 93-110.
- [36] Meyer J., Rowan B. (1977), Institutional organizations: formal structure as myth and ceremony, *Academy Journal of Sociology*, 2(83), 340-363.
- [37] Micelli S. (2010), *Imprese, reti e comunità virtuali*, ETAS, Milano.
- [38] Moreno A., Verhoeven P., Tench R., Zerfass A. (2010), European Communication Monitor 2009. An institutionalized view of how public relations and communication management professionals face the economic and media crisis in Europe, *Public Relations Review*, 36, 97-104.
- [39] Moretti A., Tuan A. (2013) Social Media as a laboratory of value creation in the CSR Field. In: Atti del X Convegno Società Italiana Marketing. Milano, 3 - 4 ottobre 2013.
- [40] Nadeem M. (2012), "Social customer relationship management: how connecting social analytics to business analytics enhances customer care and loyalty?", *International Journal of Business and Social Science*, 3(21), 88-102.
- [41] Owyang J. (2011), Social Business Readiness: How advanced companies prepare internally, Altimeter Group, retrieved from <http://bit.ly/oSGHc0> (accessed on 15/02/2013).
- [42] Pastore A. (2009), Market driven management nell'economia digitale, *Mercati e Competitività*, n. 1, 5-11
- [43] Powell W. (1991), Expanding the scope of institutional analysis in Powell W., Di Maggio P. J, *The new institutionalisms in organizational analysis*, University Of Chicago Press.
- [44] Rao, H. (1998). Caveat Emptor: The Construction of Nonprofit Consumer Watchdog Organizations. *American Journal of Sociology*, 103, 912-961.
- [45] Rao, H., Greve, H., & Davis, G. 2001. Fool's gold: Social proof in the initiation and abandonment of coverage by Wall Street analysts. *Administrative Science Quarterly*, 46: 502-526.
- [46] Rindova, V. P., Williamson, I. A. N. O., Petkova, A. P., Stevens, C., & Washington, M. (2005). Being good or being known: an empirical examination of the dimensions, antecedents, and consequences of organizational reputation, *University of Maryland*, 48(6), 1033-1049.
- [47] Romenti, S., Murtarelli, G., & Valentini, C. (2014). Organisations' conversations in social media: applying dialogue strategies in times of crises. *Corporate Communications: An International Journal*, 19(1), 10-33
- [48] Rullani E. (2004a) *Economia della Conoscenza*, Carrocci, Roma.
- [49] Rullani E. (2006b) *La fabbrica dell'immateriale*, Carrocci, Roma.
- [50] Sashi C.M. (2012), Customer engagement, buyer-seller relationships and Social Media, *Management Decision*, 50(2), 253-272.

- [51] Schwartzman E., Smith T., Spetner D., McDonald B. (2009), 2009 Digital Readiness Report: essential online public relations and marketing skills.
- [52] Schultz, F., Castelló, I., & Morsing, M. (2013). The Construction of Corporate Social Responsibility in Network Societies: A Communication View. *Journal of Business Ethics*, 115(4), 681–692.
- [53] Seeger, M.W., Sellnow, T. L., Ulmer, R. R. (1998). Communication, organization and crisis. In M. E. Roloff (Ed.), *Communication yearbook* (Vol. 21, 231-275). Thousand Oaks, CA: Sage.
- [54] Singh S., Sonnenburg S. (2012), “Brand Performance in Social Media,” *Journal of Interactive Marketing*, 26, 4, 189–97.
- [55] Stelzner M. (2012), *2012 Social Media Marketing Industry Report*, Social Media examiner
- [56] Strang D., Soule S.A. (1998), Diffusion in organizations and social movement: from hybrid corn to poison pills, *Annual Review of Sociology*, n. 24, 265-290.
- [57] Stuart, T.E. (2000) Interorganizational alliances and the performance of firms: A study of growth and innovation rates in a high-technology industry, *Strategic Management journal* , 21(8),791 – 801.
- [58] Tolbert P., Zucker L. (1983), Institutional sources of change in the formal structure of organizations: the diffusion of civil service reform, 1880-1935, *Administrative Science Quarterly*, n. 30, 22-39.
- [59] Toffler A. (1980), *The Third Wave*, Bantam Books.
- [60] Veil S.R., Sellnow T.L. and Petrun E. (2012), Hoaxes and the Paradoxical Challenges of Restoring Legitimacy Dominos' Response to Its YouTube Crisis, *Management Communication Quarterly*, vol. 4, 1-24.
- [61] Varey, R., & Ballantyne, D. (2006). Relationship Marketing and the challenge of dialogical interaction. *Journal of Relationship Marketing*, 4(3-4), 11–28.
- [62] Vernuccio M., Ceccotti F., Pastore A. (2012), L'innovazione nella comunicazione integrata di marketing secondo gli attori del network. Una lettura con le mappe cognitive, *Sinergie*, n. 88, 93-113
- [63] Vernuccio, M. (2014). Communicating Corporate Brands through Social Media: an exploratory study, *International Journal of Business Communication*, vol. 51 (3), 211-233
- [64] Waddock, S., & Googins, B. K. (2011). The Paradoxes of Communicating Corporate Social Responsibility. In Ø. Ihlen, J. L. Bartlett & S. May (Eds.), *The Handbook of Communication and Corporate Social Responsibility* (23-44). West Sussex, UK: Wiley-Blackwell.
- [65] Walker, K. (2010). A Systematic Review of the Corporate Reputation Literature: Definition, Measurement, and Theory. *Corporate Reputation Review*, 12(4), 357–387. doi:10.1057/crr.2009.26.
- [66] Williams L., Cothrell J. (2000), Four smart way to run online communities, *Sloan Management Review*, n. 41, 81-91.
- [67] Wooldridge, B., Schmid, T., & Floyd, S. W. (2008). The Middle Management Perspective on Strategy Process: Contributions, Synthesis, and Future Research. *Journal of Management*, vol. 34, 1190–1221.
- [68] Xhaet G. (2012), *Le nuove professioni del web*, Hoepli Editore, Milano.

Privacy, security and utility perceptions on social commerce by Mexican consumers, and its impact on adoption of Social Network Sites as marketing medium

Celestino Robles-Estrada, crobles@cucea.udg.mx

Laura M. Alvarado-Benítez, lau_alvarado@msn.com

Alberto A. Suastegui-Ochoa, alberto_suastegui@yahoo.com.mx

Universidad de Guadalajara

Privacy, security and utility perceptions on social commerce by Mexican consumers, and its impact on adoption of Social Network Sites as marketing medium

Abstract

The increased popularity of social networking sites (SNSs), such as Facebook and Twitter, has opened opportunities for new business models for electronic commerce, often referred to as social commerce. This research aims to identify and explain some of the factors related to security and trust that may inhibit people and some factors related to easy of use that may encourage people to adopt social media as a marketing medium. To explain the adoption of social commerce by Mexican consumers, we build on the main models developed to explain the processes of technological innovation such as the perceived risk model, the theory of reasoned action, the technology acceptance model, and the innovation decision process; and a more specific model that aims to explain social commerce adoption; the social commerce acceptance model, SCAM. In particular this study measured confidence and perceived utility as drivers of purchase intention on SNS. A questionnaire was developed and applied to 311 respondents and structural equation modeling tested the model empirically. Results show a high psychological risk and a low sociological risk perceived by Mexican consumers. Perceived risk correlated inversely with purchase intention on SNSs while perceived utility showed a positive effect.

Keywords: social commerce, social shopping, social networking

Introduction

The Internet has spurred the reshaping of businesses and their strategies (Jachyra, 2009) as online transactions are available without having physical stores, and stakeholders are being managed through the Internet (Willis, 2004). In a narrow sense, electronic commerce (e-commerce) is an electronic way of buying and selling (Willis, 2004; Malucelli, Palzer & Oliveira, 2005). On the other hand, in a broad sense, e-commerce is not just selling and buying but includes managing the processes of stakeholders (Fingar, 2000; Zhu & Kraemer, 2002). Regardless of the scope, the most frequently cited benefits of e-commerce are cost reduction resulting from relatively less resource consumption (i.e., spatial, temporal, material and labor force) and data collection (Gerald & Efrim, 2009; Willis, 2004; Malucelli et al., 2005).

Web 2.0 is a phenomenon that has transferred Internet and the WWW to a social environment, creating platforms where people can interact and create content online (Lai and Turban, 2008). This advancement has also elevated online communities to a level where new business plans can be developed and implemented (Lu et al., 2010). Among emergent online social tools, or social media, perhaps the most preeminent are SNSs – online platforms on which users can create profiles and build personal networks for communicating and exchanging content (Boyd and Ellison, 2007). Social media has had a significant impact on communication since the first weblogs, or blogs, appeared more than a dozen years ago (Thackeray et al., 2008).

SNSs connect people with each other and help them to stay in contact with friends and family (Mital & Sarkar, 2011). Social networking websites act as a platform for coming together of people with similar interests, beliefs, and ideas. Users of social networking web sites connect to each other with the purpose of finding and exchanging content. Some of the other ways in which social networking can be used are for self-disclosure and self-representation and thus create and manage a social or even a professional identity (Haythornthwaite and Wellman, 1998). Social media is a subset of Web 2.0, and the social media revolution in the use of the Web is making social commerce a new extension of e-commerce (Fraser, and Dutta, 2008; Stephen, and Toubia, 2010; Zwass, 2010; Turban, Bolloju, and Liang, 2011).

Literature review

SNSs are applications that enable users to connect by creating personal information profiles, inviting friends and colleagues to have access to those profiles and sending e-mails and instant messages between each other (Kaplan and Haenlein, 2010). Tredinnick (2006), defines SNSs as those sites driven by user-participation and user-generated content. These definitions highlight the central philosophy behind SNSs which is self-disclosure, described by Kaplan and Haenlein (2010) as the conscious or unconscious revelation of personal information, for example feelings, thoughts, likes, and dislikes.

Profit making organizations use SNSs for interacting with customers and marketing their products. Muniz and O'Guinn (2001) observed that several companies are using SNSs to support the creation of brand communities. This means that social media holds enormous potential for companies to get closer to customers, and by doing so, facilitates increased revenue, cost reduction and efficiencies (Baird and Parasnis, 2011). Although it is certainly clear that large numbers of people are using SNSs, it is extremely difficult to determine the exact number of users because the numbers keep rising each and every day. A study by Waters et al. (2009), for instance, has indicated that an average of 250,000 people register to use Facebook daily. As consumers use online social media (e.g., weblogs, social network services), it is also important to understand consumer's media use and social communication in online shopping. Papacharissi and Rubin (2000) examined interpersonal, media, and new technology motives and found five computer-user computer mediated technology (CMC), motives for using the Internet: interpersonal utility, passing time, information seeking, convenience, and entertainment. Flanagin and Metzger (2001) classified ten motive clusters for people's Internet use including information, learning, playing, leisure, persuasion, social bonding, relationship maintenance, problem solving, status, and insight. Ray (2007) investigated why people make use of CMC, via social networking websites and examined people's motivations of CMC; motivations include entertainment, information, and social utility. Also, Nadjm (2007) found several reasons why people use social networking websites, such as to be popular, make friends, exchange information, self-improvement, entertainment, belonging to a group, etc.

Social Commerce

The social interactions of people on the Internet, especially in social networking site (SNSs), have created a new stream in e-commerce. This new stream is social commerce, s-commerce. Yahoo first introduces the label "Social commerce"! In 2005, with the earliest academic article entailing it in 2007 (Jascanu, Jascanu & Nicolau, 2007). Although there is no standard definition of the term, s-commerce, (also known as social business), generally refers to the delivery of e-commerce activities and transactions via the social media environment, mostly in social networks and by using Web 2.0 software. According to Petersen (2011), s-commerce is the fusion of e-commerce and social networking. Hajli (2012), defines s-commerce as "a new concept, which enables customers to have an active positioning cyber space. It is a development in e-commerce based on a network of buyers and sellers. It is more commonly found in social and interactive forms of e-commerce". S-commerce is the use of Web 2.0 and social technologies to support interactions in an online context to support consumers' acquisition of services and products on the Internet (Liang and Turban, 2011). As a relatively new phenomenon first widely acknowledged in 2005, s-commerce, presents new opportunities to examine issues related to information/content, business strategies, management, technologies, and people's behavior. It involves using Web 2.0 social media technologies and infrastructure to support online interactions and user contributions to assist in the acquisition of products and services. (Liang and Turban, 2011), its major feature is conducting various types of commercial activities on social media to take advantage of online social capital (Ting-Peng et al, 2011-12). The increased popularity of social media such as Facebook and Twitter has further developed s-commerce. Since June 2009, Facebook has been transitioning beyond just a social media site, and into a viable commerce venue (Parry, 2011; Sands, Harper, & Ferraro, 2011). Projected retail sales through Facebook storefronts (retailers that run Facebook pages and conduct e-commerce transactions through the Facebook pages) may grow to \$15 billion by 2015 (Word of Mouth Marketing Association, 2011). The process of buying and selling products has then, evolved from traditional physical storefronts, to catalog shopping, then shopping electronically using online retail storefronts, and most recently to the social media venue, Facebook, for transactions (Jansen, Sobel, & Cook, 2011). The future of e-commerce is s-commerce (Hajli, 2012). According to Sau-Ling (2011), s-commerce has four characteristics: 1) there is harnessing collective intelligence, i.e., the key to market dominance lies in the creation of massive networks of contribution;

2) an architecture of participation in which all parties are involved; 3) viral marketing, which is one way to achieve loyalty with consumers and greater affinity; 4) Rupture of marketing, i.e., the most successful companies are those that gain the most from their consumers and at the same time, have a new and different approach to do things. Some SNS's have developed applications to make purchases within its site, i.e. Facebook. It has led to the emergence of a new sub-category for s-commerce called F-commerce, where users with similar tastes and interests can make purchases within Facebook. (Petersen, 2011)

S-commerce has quickly emerged as a new area of inquiry for both practitioners and researchers, suggesting the potential impacts of social media and social networking technologies and services in shaping commercial channels on the Internet (Zhang, Zhou and Zimmerman, 2013). Social relationship is the key element that differentiates social commerce from other forms of online commercial activities. (Ting-Peng et al, 2011-12). However, except for a few recent studies (Zee-Sun, 2011; Ting-Peng and Turban, 2011-12), there has been a general lack of strong empirical work to enable the establishment of models to find out the factors that can explain the adoption of s-commerce.

Adoption of innovations

Past studies used to explain adoption of innovations include various frameworks and models to clarify the factors or determinants influencing the acceptance of technology in consumer context. Most of them are based on theories such as perceived risk theory (PRT), (Bauer, 1960), the technology acceptance model (TAM), (Davis, 1989), Theory of planned behavior, (TPB) (Ajzen, 1991) and diffusion of innovation, (DOI) (Rogers, 1995). TAM assumes higher Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) of a system cause a greater intention to use a system. TAM proposed that perceived usefulness (PU) and perceived ease-of-use (PEOU) are both able to predict the behavioral IU a technology of users. PU is the extent to which an individual's expectation that the use of the technology will improve one's job performance whereas PEOU is the belief that using the technology will be free of effort (Davis, 1989). TPB is a theory about the link between beliefs and behavior. The theory states that attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors (Ajzen, 1991). TPB was extended from theory of resonated action (TRA). Besides, technological factors, TPB also focused on social and individual factors (Khalifa and Shen, 2008). The theory of planned behavior stated that behavioral intention to perform an activity is determined by attitude, perceived behavioral control, and subjective norm (Ajzen, 1991). Social Commerce Acceptance Model (SCAM) indicated the importance of s-commerce components in intention to buy behavior of customers. Trust as well as forums and online communities play key roles in the SCAM model. According to SCAM, forums and communities positively increase customers' trust and consequently intention to buy increases. (Hajli, 2012). This is the first model in s-commerce to date.

Barriers and factors influencing s-commerce adoption

Barriers existed for both fans and online Facebook retailers. Retail Facebook fans needed to trust the brand, feel engaged, and be social when they visited retail Facebook sites (Nambisan & Watt, 2011). If fans did not feel in control of their online retail experience, they had a lowered sense of trust (Gil-Or, 2010). Facebook retailers faced many barriers when marketing to retail Facebook fans. Included in these barriers was a lack of understanding the Facebook environment, identifying the resources needed to market to fans, and not knowing which marketing tactics influenced Facebook fans (Karakaya & Stahl, 2009). Barriers to brand building are due to consumer trust perceptions of an organization and the culture of an organization (Gil-Or, 2010). Fans mostly used a social networking site such as Facebook to connect with family and friends. Only 23% used it to interact with brands (Baird & Parasnis, 2011).

Marsden (2009) notes that social shopping is influenced by the social intelligence of the individual, i.e., their ability to learn from the knowledge and experience of people you know and / or trust. This type of purchase is governed in part by the heuristic thinking of each individual, i.e., to ignore the information that is available and leaning usually consideration of recommendations made by acquaintances or you trust and that usually given as result of intuitive decision making by the buyer (Marsden, 2009). The behavior exhibited by the social buyer has

been studied by modern psychology. It states that there are six heuristic laws that governed social buyers: 1) social support, 2) power, 3) scarcity, 4) admiration 5) coherence and 6) reciprocity (Neuromarketing , 2012).

Risk perception

Consumer perceptions of risk have been widely dealt with in the past literature and have been shown to shape all purchase decisions to varying degrees, and thereby influence consumer behavior (Bauer, 1960; Bettman, 1973; Chaudhuri, 1997; Cox, 1967; Cunningham, 1967; Mitchell, 1992, 1999). A purchase decision involves risk when the consequences connected with the decision are uncertain and some results are more desirable than others (Kogan and Wallach, 1964, 1967; Pollatsck and Tversky, 1970; Rapoport and Wallsten, 1972; MacCrimmon and Wehrung, 1986). Consumer perceptions of risk have been widely dealt with in the past literature and have been shown to shape all purchase decisions to varying degrees, and thereby influence consumer behavior (Bauer, 1960; Bettman, 1973; Chaudhuri, 1997; Cox, 1967; Cunningham, 1967; Mitchell, 1992, 1999). A purchase decision involves risk when the consequences connected with the decision are uncertain and some results are more desirable than others (Kogan and Wallach, 1964, 1967; Pollatsck and Tversky, 1970; Rapoport and Wallsten, 1972; MacCrimmon and Wehrung, 1986). Social risk included seeking the opinions of family and friends prior to making an online purchase through Facebook storefronts. Risk perceptions lowered and decreased the purchase barrier when Facebook storefronts made the process transparent to fans and offered complete information (San Martin et al., 2011).

Trust

Historically the issue of trust (i.e. “the confidence of the exchange actors in the goodwill of each other” Gounaris, 2005, p. 127) dissuaded many buyers and suppliers from participating in e-markets. Trust theory is used in interpreting social behavior and may be able to shed light on issues in s-commerce research (e.g., Caverlee, Liu, and Webb, S., 2010). Negative interactions among retail Facebook fans, was a barrier to convert from fan to buyer (Zeng et al., 2009). Negative comments and inappropriate postings lowered the sociability that fans experienced (Nambisan & Watt, 2011).

Easy of use

Easy of use of innovations is sometimes measured by its opposite: perceived complexity. Rogers (1995) defined complexity as the degree to which an innovation is perceived as relatively difficult to understand and use. Complexity refers to what makes people perceive innovation as a complex (Tornatzky & Klein, 1982). The construct of Davis 'perceived ease of use' (Davis, Bagozzi & Warshaw, 1989) is the opposite of complexity (Moore & Benbasat, 1991). Is defined as "the extent to which a prospective user expects a target system is free of effort" (Davis, Bagozzi & Warshaw , 1989 : p 985.) . This effort covers both physical and mental effort (Moore & Benbasat, 1991). The complexity thus relates to more than just the difficulty to understand and operate an innovation. Exemplary is the inclusion of 'uncomfortable to use' and 'frustrating to use' on the scale of usability by Moore & Benbasat (1991). Regarding s-commerce, it can be argued that issues such as security, user difficulty of neglect and technological dependence can make a user perceive it as complex.

Methodology

Aims and research question

This research aims to answer which factors explain the adoption of social commerce in Mexican SNS's users. Thus, research question of this study was: What are the factors that inhibit the adoption of social media as a marketing medium in Mexico? The basic proposition in this study is that there are factors (i.e., distrust and perceived risk) that inhibit s-commerce adoption and some factors that facilitate its adoption (i.e., perceived easy of use).

The proposed research model

From the review and the subsequent discussion on the findings, a model was drawn to study the adoption of s-commerce among Mexican consumers. It focuses in analyzing perceived risk, trust and easy of use to predict intention of using and buying intention trough social commerce, as shown in Figure 1:

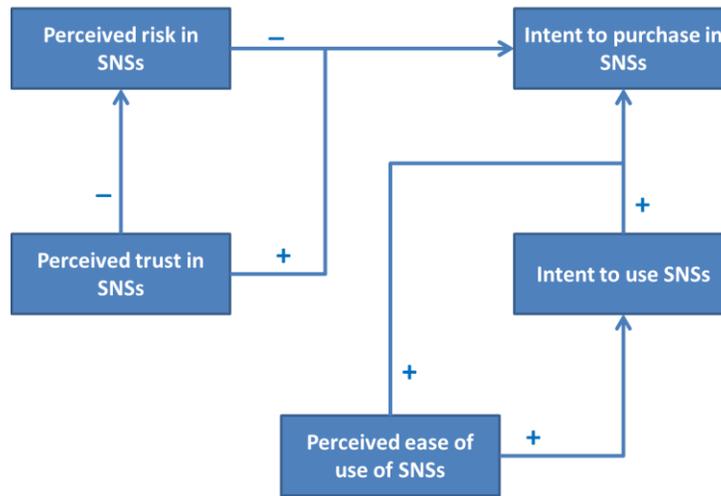


FIG. 1: PROPOSED RESEARCH MODEL

Therefore we predict:

- H1: Perceived risk on social networks will negatively affect the purchase intention of social networks users.
- H2: The trust of users towards social networks lowers the perceived risk in social networks.
- H3: The trust of users towards social networks increases the purchase intention in SNSs.
- H4: The greater ease of use perceived by users, the greater the purchase intent of social networks users.
- H5: Perceived ease of use of social networks will positively affect the intended use of social networks.
- H6: Intention of the use of SNSs will be positively associated to the purchase intention of social networks users.

Measures

To measure Perceived risk on SNSs, we used the 5-item scale (RP) developed by Lorenzo-Romero et al, (2011), based on the work by Jarvenpaa et al. (2000), McKnight et al. (2004b), Wakefield y Whitten (2006), González et al. (2006), Flavián y Guinalfú (2007), Ruiz et al. (2007), and Muñoz (2008). Examples of items of this scale are “if my friends / colleagues know that social networking use my public image could be adversely affected” and “using social networks can sometimes make me feel bad”. Response categories ranged from 1 (not at all characteristic of me) to 5 (extremely characteristic of me). Cronbach's alpha for the scale was 0.775, which is lower to other research using the scale (Lorenzo-Romero et al, 2011, $\alpha=0.90$), but still higher than 0.7, which is the minimum accepted value (Hajli, 2012; Han, B., & Windor, J., 201 and Hair et al., 1999), who also state that the lower limit for acceptable Cronbach's alpha may drop to 0.60 in an exploratory research. To measure trust in SNSs, we used the 11-item scale rated on a 5-point scale (C) developed by Lorenzo-Romero et al, (2011), and based on the work by Pavlou (2002, 2003); Flavián y Guinalfú (2007); Camarero y San Martín (2007); Ruiz et al. (2007); Muñoz (2008)). Examples of items of this scale are “I believe the information in SNSs is sincere and honest”, “social networks are characterized by openness and transparency”, “social networks are worthy of trust” and “companies that manage social media act responsibly”. Three of the items in this scale were dropout as they had a low charge in the Factor analysis (items C9, C10 and C11, with charges below 0.60. Concerning this, Hair et al. (1998, 2006) recommends that, in addition to being significant, the average of the loads on each factor is greater than 0.7 or as Bagozzi and Yi (1988) and Vila et al (2000), proposed, individually greater than 0.6.). Cronbach's alpha for the revised scale in our study was 0.82. To measure Intent to use SNSs, we used the 4-item scale rated on a 5-point scale (IU) developed by Lorenzo-Romero et al, (2011), based on the work by Davis (1989); Moon y Kim (2001); Mathwick (2002); Chan y Lu (2004); Castañeda (2005); Muñoz (2008); Willis (2008). Examples of items of this scale are “I intend to start or continue using social networks” and “I will recommend to others to use social networks”. Cronbach's alpha for the scale in our study was 0.76. To measure

perceived easy of use, we used the 6-item scale rated on a 5-point scale (FU) developed by Lorenzo-Romero et al, (2011), drawn from the work by Davis et al. (1989); Venkatesh (2000); Moon y Kim (2001); Pikkarainen et al. (2004); Munoz (2008); Shin (2008a, b); Willis (2008). Examples of items of this scale are “Learning to manage social networks is easy”, “interaction within social networks is clear and understandable” and “Social networks are easy to handle for anyone”; item FU4 was dropped out due to a low charge in the Factor analysis. In our study, $\alpha=.76$. To measure intent to purchase in SNSs, we used the 2-item scale and is rated on a 7-point scale (IC) developed by Mir & Zaheer, (2012). Items of this scale are “I will consider in my future product purchases those offers that companies present in SNSs” and “I intend to take my future purchasing decisions based on the information users share in social networks”. Cronbach's alpha for the scale in our study was 0.82.

Data collection procedure

This study focuses on adoption of s-commerce of college-aged adults for a variety of reasons. First, although Internet adoption rates have increased in all demographic groups, usage still varies across age groups with the highest penetration (88%) among young adults aged 18 to 29 (Rainie, 2005). Second, young adults have grown up with this technology and the distinctions between the online and offline world are often blurred (Rainie, 2006), which suggests that Internet communication is a way of life for this group. From a behavioral perspective, these two reasons suggest that young adults are more likely to use the Internet for sharing information with their family and friends. We administered a survey to undergraduate students enrolled in marketing courses at a university located in Guadalajara, Mexico. Participants were informed that the purpose of the project was to develop an understanding of the factors that inhibits the use of SNS as a marketing medium. Inviting 985 Facebook users to an online survey, which took approximately 20 min to complete, collected data. The final sample was comprised of 190 females (61%) and 121 males (39%). The ages of the subjects ranged from 18 to 51 years of age, with a mean of 22.5 (SD=2.6). 14% of the participants were undergraduate students, 66% of the participants had finished their college studies and 20% were graduate students. 81% of the participants informed to use SNSs on a daily basis.

Data analysis procedure

We used the two-step approach to structural equation modeling (SEM) which calls for the evaluation of the fit of the measurement model using confirmatory factor analysis (CFA) prior to assessing the fit of the structural model (Schumacker and Lomax, 2004). The fit measure included a χ^2 /degrees of freedom ratio of 1.785 ($\chi^2= 437.436$, $df=245$), which is below the recommended cutoff of 3.0 (Kline 1998). Similarly, based on the recommendations of Hu and Bentler (1998) we meet the criteria for an acceptable model fit: comparative fit index (CFI)=0.911, non-normed fit index (NNFI)=0.90, and standardized root mean residual (RMR)=0.068. The construct reliabilities ranged from 0.88 to 0.91 confirming internal consistencies of the measures. Overall, the measurement model was supported by the results of CFA. The research hypotheses were examined using structural equation modeling (SEM) which allows all paths to be examined simultaneously. The conceptual model (refer to Fig. 1) was tested using EQS 6.1. The model was tested with the maximum likelihood method of parameter estimation and the covariance matrix was used as input. Although the chi-square value was significant ($p<0.001$), the structural model provided a satisfactory fit to the data (Hu and Bentler, 1998). The ratio of chi-square to degrees of freedom is 1.785 ($\chi^2=437.436$, $df=245$), comparative fit index (CFI)=0.911, non-normed fit index (NNFI) = .950, and standardized root mean residual (RMR)=. 068. However, not all structural paths between constructs were significant as McDonald's (MFI) Fit Index =0.072 in our study (MFI recommended for a satisfactory fit ≥ 0.90 , (Mir y Zaheer, 2012).

Research findings and discussion

Validity and reliability of the scales

Because the model originally proposed does not meet the criteria to be considered successful, it was necessary to perform an adjustment that involved the removal of some variables; in this case, trust and intent to use SNSs were cutoff. Results for the modified model proved satisfactory as shown in Table 1 and Table 2. The internal consistency of the constructs, reliability is presented in Table 1. In this case, Cronbach's α exceeds the 0.7 recommendation by Nunnally and Bernstein

(1994). In table 2 we can observe that the comparative fit index (CFI) which represents the shared variance between the set of variables observed that measure the same construct (Fornell and Larcker, 1981) measured 0.946, well above the minimum 0.6 considered reasonable by (Bagozzi y Yi, 1988). McDonald's (MFI) Fit Index rose up to 0.921 in the modified research model, well above the minimum satisfactory, while the other indices also have had satisfactory results as presented in Table 2 (Bollen's (IFI) Fit index = 0.913, Joreskog-Sorbom's GFI fit index = 0.892, Joreskog-Sorbom's AGFI fit index = 0.867). Content validity of the scale is derived from the adequacy of scales; all of them previously used according literature review (Vila et al., 2000). To ensure validity such a thorough review was conducted. Even if most previous scales were used in different contexts to the present work, mainly for e-commerce or online banking, they were used in the context of SNSs by Lorenzo-Romero, et al, (2011).

TABLE 1: FACTOR ANALYSIS: RELIABILITY AND CONVERGENT VALIDITY

Factor	Item	Factor load	Cronbach's alpha
Perceived risk	RP1	0.748	0.775
	RP2	0.755	
	RP3	0.778	
	RP4	0.689	
	RP5	0.68	
Perceived trust	C1	0.611	0.822
	C2	0.644	
	C3	0.649	
	C4	0.691	
	C5	0.648	
	C6	0.723	
	C7	0.626	
	C8	0.651	
Intent to use SNSs	IU1	0.793	0.755
	IU2	0.702	
	IU3	0.849	
	IU4	0.702	
Ease of use of SNSs	FU1	0.764	0.758
	FU2	0.601	
	FU3	0.734	
	FU5	0.667	
	FU6	0.755	
Intent to purchase in SNSs	IC1	0.922	0.823
	IC2	0.922	

TABLE 2: FIT MEASURES FOR THE MODIFIED RESEARCH MODEL

$\chi^2/\text{degrees of freedom}$	CFI	IFI	MFI	GFI	RMSEA	AGFI
2.211	0.946	0.947	0.921	0.949	0.064	0.917

SEM analysis

As previously mentioned, Table 2 collected Indicators of structural adjustment model, showing that the model has a good fit. In addition, the adjusted structural model as shown in figure 2, largely explained variables perceived risk ($R^2 = 0.3292$), perceived ease of use ($R^2 = 0.254$) and intent to use SNSs ($R^2 = 0.191$).

Results of hypothesis testing

The results of the structural equation model showing the significant paths ($p < 0.10$) in solid lines are presented in Fig. 2. Table 3 shows individual parameter estimates, standard errors and t-values. Hypotheses H1 through H4 examined the direct effects of the key motivations associated with FIRO theory on forwarding online content. The individual path coefficients for the need to belong, individuation, altruism, and personal growth initiative were examined and we found only partial support for this set of hypotheses

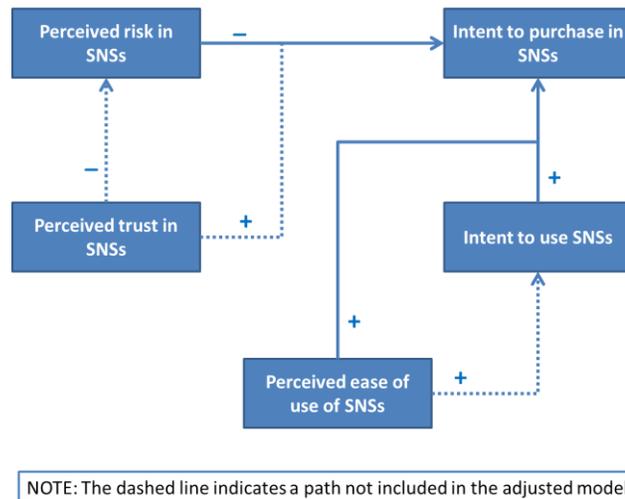


FIG. 2: ADJUSTED STRUCTURAL MODEL

Results of hypothesis testing

Table 3 shows individual parameter estimates, standard errors and t-values. Perceived risk has a negative and significant effect on the Intent to purchase in SNSs ($\beta = -0.356$; $p < 0.10$), accepting therefore, hypothesis 1. Perceived ease of use has a positive effect on Intent to purchase in SNSs ($\beta = 0.568$; $p < 0.10$), supporting thus hypothesis 4. Intent to use shows a strong positive effect on Intent to purchase in SNSs ($\beta = 0.718$; $p < 0.10$), accepting therefore, hypothesis 6.

TABLE 3: PATH ESTIMATES, STANDARD ERRORS, AND T-VALUES OF THE MODEL

Hypothesis	Causal path	Parameters estimates	Standard error	t-value
H1	Perceived risk --> Intent to purchase	-0.356	0.022	-2.701
H4	Perceived ease of use --> Intent to purchase	0.568	0.203	2.781
H6	Intent to use --> Intent to purchase	0.718	0.261	4.136

Conclusions

As can be seen, the majority of social network users logged on to this kind of web / electronic daily community sites using lots of your time on them. Although there is a belief that young people are better to change and adapt technological advances, you can see even a certain amount of users who are reluctant to change, or, skeptical about the security that SNSs offer for a-commerce. Even if there is a perceived high risk can not be said that the social network users rely 100% on them, because a user group showed an unfavorable position, for example, even though a

large number of users does not believe that social media can damage them psychologically, there is a percentage that does not rule out another number that idea and believes that social networks can reach them feel bad sometimes. From the above mentioned, it can be concluded that the risk perceived by social network users is psychological type, as the perceived social risk is relatively low; however, the sum of the number of users who are in total disagreement with the number of users who are in disagreement with that social networks are worthy of trust is very high, considering that almost half of respondents were indifferent to this statement, and a very low number answered it agree. This shows that although users perform various activities within social networks; published information, spend much of their time on these sites and maintain relationship with your contacts, do not trust this kind of sites and this could be partly due to some users believe that companies that manage social media act irresponsibly.

As shown, many users do not trust social networking, or are indifferent to this factor, however, the number of users having confidence in them is relatively low and only few consider the behavior is ethical social networks. These insights could be derived from previous user experiences, beliefs or possibly culture as discussed above. However, building trust is an important issue not only for social networks but also to any business either electronic or physical. While this study has ruled out the relationship of trust factor with the other factors, does not mean it has no influence on the buying behavior of the social buyer in Mexico, because as you can see, some of the items in this scale are related to other statements that are other scales measuring factors. However, if the perceived risk factor showed to be related to purchase intent of users belonging to social networks, it is considered timely conducting mechanisms to care for the safety of the user at the time of the transactions, and the distribution information about security policies and privacy that social networking and other marketing sites online that offer, so that the perception of perceived risk decrease, a factor that is not unique to Mexico , since as discussed above, in any other country , although very developed , the issue of privacy and security, as well as fear and user perception issues are still under study. Finally, the hypotheses related to perceived risk and intention to use and although SPSS threw relationships with other factors tested, we failed to find a consistent relationship between all the variables proposed in the initial model, which does not necessarily mean that no such relationship exists, it is necessary to consider some other factors as may be necessary so that the variables have a more consistent relationship.

Value of the Study

A goal of this research was to provide practitioners with insight into some of the factors that may inhibit, and some of the factors that may boost, adoption of s-commerce. Retailers who are building a Facebook storefront, or who currently have a Facebook storefront, should understand how to market effectively to fans. Effective marketing strategies may contribute to a higher conversion rate, turning SNSs fans into SNSs storefront buyers (Parent et al., 2011). Once consumers choose a retailer's SNSs storefront, it is likely they will make purchases if the products are available (Internet Retailer, 2011a). According to Marsden (2010), 51% of Facebook fans convert to purchasers on Facebook storefronts after they like a retailer's fan page; and 75% of all Facebook fans have liked a brand page. Thus, this study contributes to the literature and provides understanding of online s-commerce activity formulating managerial implications by investigating key attributes (e.g., trust, perceived risk, easy of use) of social shopping and provide evidence for retailers regarding if and how social shopping might be effective in customer decision making and how it might enhance the customer shopping experience by adding value, and ultimately, increasing sales

Limitations and future research

The study of e-markets is relatively new in the management and systems literature and their importance fuels a continuous and growing demand for more research on barriers to their adoption. While this exploratory study identifies a number of barriers and challenges to their adoption, the implications drawn from this research should be considered in light of several constraints. First the generalizability of the study is limited by the use of a convenience sample of college-aged students While the use of student samples can impede concluding how nonstudent consumers will respond, given the primary objective of this research was to provide theoretical insights into the adoption of s-commerce of the e-maven, we believe the use of a student sample is justified. Furthermore, as discussed previously,

college-aged students tend to be heavy users of the Internet and thus comprise an important segment to marketers. Second, our results are limited to the particular scales used. Since a number of different scales are available that can potentially tap the same constructs used in our study, it is possible that the use of different scales might impact the results. Despite these limitations in this research, the present study sheds light on some of the factors that affect adoption of s-commerce among SNSs users.

References:

Contact author for the list of references

Social Media Use by Government to Reduce Damages Following a Natural Disaster

Naoya Yasugi, n.yasugi@gmail.com

Liu Changyu, liuchangyu1989@gmail.com

Yasuyuki Nishigaki, nisigaki@econ.ryukoku.ac.jp

Hideki Nishimoto, nisimoto@econ.ryukoku.ac.jp

Ryukoku University, Japan

Social media use by government to reduce damages following a natural disaster – inhabitants communication, e-government, and intangible social capital of collaboration

Abstract

Ensuring an effective mechanism to disseminate valid information to inhabitants that allows them to escape a disaster rapidly and effectively is a critical issue for governments. Social media is not only effective as a method for a government to deliver disaster information but by utilizing information sent by inhabitants, it also enables the government to process and deliver on-the-spot and up-to-the-minute information, which considerably improves the functioning of e-governments as an entire system, including social media. In order to best utilize these advantages, it is necessary to elucidate the current and actual status of inhabitants' usage of social media during a natural disaster. This study approaches this problem by conducting a questionnaire survey of inhabitants who provided information during the Lushan earthquake that occurred in Sichuan Province, China in 2013.

Keywords: social media, e-government, natural disaster

Introduction

Focus of this paper

One major responsibility of a government is protecting the people living under its authority. Even in times of disaster, a government must look after the safety of its citizens by providing appropriate information regarding safety. In recent years, many governments have recognized that social media is an effective tool to disseminate disaster information widely. Social media can play a range of roles, such as disaster risk reduction, emergency management, and community development (Paton, 2006). Dufty et al. (2012) indicated that government is required not only to provide information to save inhabitants' lives but also to devise a system to provide such notice. In terms of community development, Schellong (2007) indicates that creating social capital by social media also works for community development. This paper focuses on government use of social media in disaster settings and also examines citizen use of such channels to determine the impact of a two-way communication channel on reactions to disasters.

Advantages of social media

Emergency management requires a strong communication channel that enables the government to deliver accurate and appropriate information in a timely manner. The development of e-government portals is one such way governments have sought to achieve outcome. In times of major disaster, however, safeguarding citizens requires unusually rapid transmission of information from the government to the people, at a time when people might not think to access normal portals of e-government—or when such portals might face disruption due to the nature of the disaster. Accordingly, ensuring an effective and robust mechanism to disseminate valid information to inhabitants that allows them to escape from a disaster rapidly and effectively is also a critical issue for governments. Sutton et al. (2008) used a case study of a 2007 California wildfire to determine that social media is an important tool enabling governments to achieve such information diffusion. Therefore, social media can be said to an effective information dissemination system for governments. Social media also has the potential strength of crowd-sourcing front-line developments by opening a two-way communication channel between government and citizens affected by a disaster.

By feeding accurate and first-hand information to the government, social networks can improve the information that the government can disseminate to those on the disaster's front line. In addition, a communication medium where people report first-hand enables governments to calculate overall damages by gathering information direct from people who suffered from the disaster. If conducted through a survey or other means, such a task could take substantial amounts of time and labor. Therefore, gathering information direct from inhabitants of various areas and disseminating it further is an effective method for governments to aid victims of a disaster promptly as well as accurately gauge the scope of a disaster.

Problems of social media

However, information gathered from social media as provided by citizens has a credibility gap. Anyone can say anything, and rumors and fears can be amplified as panicked people desperate for information repeat everything they hear; repetition can confer inaccurate speculation with the weight of truth. To overcome this potential weakness, Yokobe et al. (2011) used a case study of the Great East Japan Earthquake to determine that correct information on Twitter could be extracted by referencing geographic information using GPS.

Damages from disasters and the situations of victims can vary widely, and therefore, a government cannot simply develop a single social media and communication policy that can cope with every type of crisis a country may face. In addition, different types of disasters can require dissemination of different type of information. Magro (2012) investigated the development of social media utilization by governments during the Haiti (2010) and Queensland (2011) earthquakes, and determined that government utilized social media effectively to save people's lives in the actual disaster situation. However, he concluded that it is difficult to successfully apply a method from one case to another because the types of damage and range of victims can vary widely. Therefore, an e-communication of social media communication strategy cannot be simply formulated beforehand then enacted wholesale. It will necessarily require tailoring and adapting to suit the needs of the time.

Study purpose

As indicated above, many studies have pointed out that social media is an important tool for delivering disaster information, thus saving victims' lives. The utilization of social media is not only effective as a method for delivering government's disaster information but it also, by utilizing information sent by inhabitants, it enables the government to process and deliver on-the-spot and up-to-the-minute information, which considerably improves the function of e-government as an entire system, including social media. In order to best utilize these advantages, it is necessary to elucidate the current and actual status of inhabitants' usage of social media during a natural disaster. This study is intended to approach this problem by conducting a questionnaire survey of inhabitants that provided information during the Lushan earthquake that occurred in Sichuan Province, China in 2013.

Method

We sent questionnaires to social media users who had forwarded (retweeted) announcements provided by the official governmental account of China earthquake information by e-mail during August and September, just after the earthquake occurred in July 2013. The questionnaires were sent to 131,140 users, from whom we received 1,530 responses. The questionnaires asked for information covering the five areas as listed below.

1. Types of social media usually used;
2. Changes in interest in natural disaster information provided by social media before and after the earthquake;
3. Changes of intent in use of social media before and after the earthquake;
4. Changes in methods used to contact family or friends before and after the earthquake; and
5. Methods to obtain natural disaster information provided by governments.

Results

Respondents overview

Detailed results of the questionnaire survey are provided below.

In terms of the gender ratio of respondents, men (57.9%) slightly outnumbered women (42.1%). According to the report on China's internet status by CNNIC, in 2013, the gender ratio of all people online was 55.6% men, 44.4% women. Therefore, we can conclude that our survey has good correspondence with actual gender ratios of Chinese internet users. .

In terms of ages of respondents, those in the teenage to under- 30 age bracket accounted for approximately 93% of respondents. CNNIC reports that the total percentage of internet users from this same bracket was 78.7% as of June 2013. Our survey respondents therefore were slightly younger than the average Chinese internet users.

As for the typical social media use, instant communication tools are most common (86.7%), followed by movie sharing sites (82.3%) and social news (75.8%). Mini-blogs (56.7%) came after blogs (70.9%) and social games (65.8%).

Interest on disaster information

Only 7.5% of the respondents “often” watched the mini-blog of China’s rapid earthquake report before the Lushan earthquake. Even totals of respondents saying “often” and “sometimes” only amounted to 36.3%. After the earthquake, the percentage of respondents who “often” watch increased to 39.7%, and the total of those who “often” and “sometimes” watch rose to 87.3%. We can therefore conclude that the occurrence of the big earthquake substantially increased the number of people seeking to obtain prompt information about earthquakes from the government’s online information resources..

In what ways did respondents use social media immediately after the earthquake? Of respondents used social media within 72 hours of the earthquake, collecting information was the most common reason (87.1%), followed by confirmation of family’s and friends’ safety (56.3%). Social media is seen as a very important as a tool to collect up-to-the-minute information on emergency situations and to communicate with family and/or friends.

Communication methods

In terms of normal methods of communication with family and friends, telephone calls made using cell phones are the most common (70.8%), with social media accounting only for 11.9% of contact among even social media users. But immediately after the earthquake, social media use increased to 35.7% while telephone calls dropped to only 22%. Over the next days and weeks, the rate of telephone calls gradually recovered. This indicates that telephone calls are the usual method of contact, but in times of natural disaster, direct communication via social media comes to the fore.

As for the methods of obtaining administrative information during a disaster, mass media, i.e., television (68.2%), radio (50.6%) and newspapers (30.1%) come before social media (34.7%). Information provided by the government itself on the internet is used by only 18.7% of respondents. From the above results, it can be said that the dissemination of information by the government is less preferred.

Discussion

By analyzing the result of the questionnaires, we obtained a much clearer picture of social media use in times of disaster. First, inhabitants who disseminated information in the event of natural disasters were comparatively younger among internet users. In particular, students comprised up to 40 percent and were therefore a relative majority. Students have a strong ability to disseminate information via social media. A robust government strategy should seek to harness their ability and reach.

Most social media users are also regular users of instant communication tools. After the Lushan earthquake, they became interested in the natural disaster information provided by the government and followed the China earthquake information feed.

Second, it became clear that social networking service (SNS) users who do not usually gather and disseminate information refrain from this activity because they do not see the need in times of normalcy. Social media use increases during a disaster because traditional networks are disrupted due and people are forced out of their homes by a disaster not having access to TV or radios. Accordingly, such users’ information dissemination activities tend to be concentrated in times of natural disaster. In addition, the most important purpose of their gathering and disseminating information was to confirm the safety of family or friends. Their second most important purpose is to support an area that experienced a disaster, and SNS messages and inquiries are both collected from and passed on to the entire nation as well as overseas. Moreover, our survey revealed that although social media is a new form of media that has seen exponential growth in recent years, it has nonetheless developed into an important information channel next to television and radio.

Especially as the number of social media users is increasing substantially, the medium’s efficacy as an emergency communication tool in times of natural disaster is widely recognized. On the other hand, relatively fewer users directly access a government’s web site to obtain natural disaster information. They obtain information through

mass media, such as television or radio, and social media, all of which they already use on a regular basis. A government must be able to provide natural disaster information more effectively by using tools already in widespread use among citizens.

In addition, social media can be an effective tool to gather information from inhabitants regarding damages suffered by varied areas. At the same time, by disseminating information about areas suffering damages, a government can ensure inhabitants' safety. Hirano (2013) indicates that in an emergency, people tend to provide information via the media format that provides responses. Most government social media accounts do not respond to inhabitants' comments and queries as a matter of course. But responding to inhabitants' usual communications is very important and leads to increased social capital between inhabitants and government. Such capital is then available at the time of a natural disaster, enabling a government to harness citizens' good intentions to save lives.

References

- [1] Dufty, B. N., & Stewart, M. (2012). Using social media to build community disaster resilience Using social media to build community disaster resilience. *The Australian Journal of Emergency Management*, 27(January), 40-45.
- [2] Hirano, J., Kishi, K., Narupiti, S., & Choocharukul, K. (2013). Influence of Daily SNS Usage on the Collection of Disaster Information and Inhabitants ' Behavior during Flood, *Proceedings of the Eastern Asia Society for Transportation Studies, Vol 9, 2013*.
- [3] Magro, M. J. (2012). A Review of Social Media Use in E-Government. *Administrative Sciences*, 2(4), 148-161.
- [4] Paton, D. (2006). Disaster resilience: integrating individual, community, institutional and environmental perspectives. *Disaster resilience: An integrated approach*, 306-19.
- [5] Schellong, A. (2007). Increasing Social Capital for Disaster Response through Social Networking Services (SNS) in Japanese Local Governments. *NCDG Working Paper No.07-005*
- [6] Sutton, J., Palen, L., & Shklovski, I. (2008). Backchannels on the Front Lines : Emergent Uses of Social Media in the 2007 Southern California Wildfires, (May). *Proceeding of the 5th International ISCRAM Conference– Washington, DC, USA, May 2008*
- [7] Yokobe Wataru and Nakatani Yoshio, Information Collection and Provision Assistance in Disasters Through mini-blogs, *In Proceedings of Innovations in Information and Communication Science and Technology, October 2011*.

Tourism

**Brand management in the hotel industry: from company to network brand.
Opportunities and limits of networking for small-sized hotels¹**

Aureli S.^(a), Forlani F.^(b), Pencarelli T.^(c)

*a) University of Bologna, Department of Business Studies, Italy
selena.aureli@unibo.it*

*(b, c) University of Urbino Carlo Bo, Department of Economics, Society, Politics, Italy
tonino.pencarelli@uniurb.it
fabio.forlani@uniurb.it*

¹ This work is the result of a common research project however paragraphs should be attributed as following: Selena Aureli wrote par. 1, 2.3., 3, 4.1.; Fabio Forlani wrote par. 2.2, 4.2; Tonino Pencarelli wrote par. 2.1.

Brand management in the hotel industry: from company to network brand. Opportunities and limits of networking for small-sized hotels¹

Abstract

In the worldwide competition for attracting tourism flows, a strong brand can increase the capability of a hotel to be recognized, appreciated and visited. Thus a brand can represent an important key success factor. However, like every other corporation hotels should manage their brand efficiently and effectively. Hotel brand should be coherent with the network or franchising chain the hotel belongs to and with the place brand of the territory where it is located. Attention to brand architecture help hotels leverage and reinforce the positive image and value proposition of the specific place. Since SMEs represent the main actor in hotel industry, this paper aims to explore small hotel owners' awareness on the importance of branding and explore which brand management activities they perform alone and within the network. Empirical analysis is performed with reference to the Province of Rimini in Italy.

1. Introduction

Academics have already recognized the increasingly importance of intangibles resources in the tourism sector and the hotel industry in particular (Krambia-Kapardis and Thomas, 2006; Nemeč and Mihalic, 2007; FitzPatrick et al. 2013). Among intangible resources that help tourism organizations differentiate from their competitors, attract and retain customers, the company brand plays a fundamental role (Bailey and Ball, 2006). Brand is a key success factor and source of competitive advantage which leads to revenue (O'Neill and Mattila, 2004, 2010; Hong-bumm Kima and Woo Gon Kim, 2005; O'Neill and Carlback, 2011).

However, small tourism businesses – which represent the majority of actors involved in this sector in Italy and Europe - seem to possess a smaller extent of intangibles in comparison with larger companies (Jermañ et al., 2009). With reference to brand management, traditional SMEs' lack of managerial competence and resources (skills as well as financial resources) might hinder these organizations to build a proper marketing strategy, promote their tourism offer and carefully define, maintain and improve a brand to increase customer loyalty and sales. Maintaining brand equity and/or gaining brand value requires a comprehensive understanding of the brand, its target and the company's overall vision. In other terms it involves the development of a strategic plan (Aaker, 1991). Thus, brand management could appear a too complex activity to be accomplished for SMEs.

To overcome similar limits due to resource shortage, Italian SMEs have experienced several forms of inter-firm cooperation like consortia, associations and product clubs - an organizational and marketing alliance that brings together a group of hotels with the purpose of promoting and marketing the tourist product of the associated companies - (Forlani, 2005; Lombardini, 2006; Pencarelli and Splendiani, 2008). More recently tourism organizations are cooperating through the 'network contract': a formal agreement emanated by the Italian Government in 2009 with the aim to increase national and international competitiveness of SMEs. Latest research (Aureli and Forlani, 2013; DelBaldo, 2013) indicate that tourism organizations are using the network contract to promote the network's members and accomplish marketing initiatives; increase the visibility of the territory where members are located; share ideas and favor the adoption of innovative processes; achieve economies of scale and scope; reach new clients and augment members' international expansion.

The network contract creates stable relationships which help SMEs develop new commercial opportunities, achieve growth and improve competitiveness like other formal alliances (Chathoth and Olsen, 2003; Pansiri, 2008). However, it differs from franchising agreements and management contracts commonly used in hotel industry. These create networks (similar to hotel chains) whose members should share several similarities and provide a standardized

¹ This work is the result of a common research project however paragraphs should be attributed as following: Selena Aureli wrote par. 1, 2.3., 3, 4.1.; Fabio Forlani wrote par. 2.2, 4.2; Tonino Pencarelli wrote par. 2.1.

service whereas the network contract is more similar to consortia which tend to preserve members' identity and autonomy.

Despite this difference the network contract might offer hotel property owners the opportunity to benefit from a common network brand like for hotel chains. Building a strong brand capable to differentiate network members from other competitors and attract customers can be a great resource. In addition, when the single hotel brand, the network brand and also the brand of the territory where hotels are located are linked together, all hotels might leverage the positive image of the network and the place (tourism destination). With a proper brand architecture several synergies can be exploited (Dooley and Bowie, 2005; Kavartzis, 2004; Hanna and Rowley, 2011). Coherently, this study aims to explore current small hotel² owners' awareness on the importance of branding and explore which brand management activities they perform alone and within the network. Questions we aim to answer are the following: (RQ1) Do small-sized hotels consider hotel brand a key success factor? (RQ2) Do small-sized hotels devote attention to brand management? (RQ3) What's the role of hotels' networking strategies in brand management?

Findings from interviews indicate hoteliers' awareness on the role of brand in the competitive arena and the type of brand management activities they carried out. Moreover, they reveal whether formal alliances help small-sized hotels to create an entity capable to promote the network and its members also through the creation of a strong network brand. Among brand management activities particular importance is given to brand architecture. Findings reveal whether brand architecture has been properly designed (i.e. there is consistency among the hotel brand and the destination brand) and therefore when hotels can benefit from the attractiveness of the destination and the reputation of its brand. In the majority of hotels here investigated there is no deliberate process about brand strategy. Moreover brand strategy is absent also at the network level because networks were created mainly for other purposes (i.e. to reduce the cost of provisions, to promote the local territory).

The main contribution of this study refers to its focus on small sized hotels, while international literature on intangibles and brand management has mainly focused on large listed hotel companies (O'Neill and Mattila, 2004, 2010; O'Neill and Carlback, 2011; FitzPatrick, 2013).

2. Literature review

2.1 Brand and brand management

According to the American Marketing Association, a brand is "a name, term, design, symbol or any other feature that identifies one seller's good or service as distinct from those of other sellers". Similarly, Kotler and Scott (2002) state that a brand is "a name, term, sign, symbol or design, or combination of the same, used to identify the products or services of a seller or group of sellers and distinguish them from those of their competitors", while Aaker (1991) affirm that a brand is a "a set of assets or liabilities linked to an identifying feature (trademark, name or mark) which add to (or reduce) the value generated by a product or service".

French researcher Séquéla advocates the concept of the brand-person, as a brand takes on not just the name but the "soul of the product"; the brand name can be linked to tangible characteristics, while the soul refers to the universe of closely connected values. Following Séquéla's approach, Pratesi and Mattia (2006) state that "a brand has its own expressive meaning; it is therefore a combination of tangible and intangible signs and symbols which create its face and personality, as for a person".

Brand management scholars (Aaker, 1996; Kapferer, 1997; Nandan, 2005) emphasize the difference between brand identity and brand image. Kapferer (2008) terms brand identity the brand's meaning as put forward by the firm. It is the way a company wants to present its brand to its target groups. Brand image, on the other hand, is the consumers' perception and interpretation of the brand's identity. Academics typically conceptualize brand identity and image as multi-dimensional constructs of which brand personality is an important component (Patterson, 1999; Hosany, Ekinci, Uysal, 2006).

² Lodging firms classification is usually related to the amount of rooms offered and the average number of employees. According to the studies reviewed Franch et al. (2005), a hotel can be defined as small business when it has less than 50 rooms.

Given today's brand's importance and its vulnerability to customers' and stakeholders' negative critics, it is increasingly important to correctly manage a brand in order to ensure that its potential can be fully exploited and enhanced. Each company should manage its own brand or brands by adopting a branding policy defined on the basis of the products sold, the context and the image it intends to promote.

Brand management or branding refers to the "process by which the brand is laden with meanings, transforming it into a 'living' entity with its own expressive capability by means of which a complex combination of actions are planned and carried out in compliance with a single strategic intent: to aid the lasting growth of the business by consolidating the brand's reputation and distinctiveness" (Pratesi and Mattia, 2006).

- Branding activities essentially consist of (Keller, Busacca, Ostilio, 2005; Pencarelli, Betti e Forlani, 2009):
- conception and design of brand identity (which translates into the definition of three key components: the brand name³, the logo or mark⁴ and the pay-off or motto⁵, which all enable a brand identity to be visually distinctive, recognizable and identifiable);
 - definition of the positioning sought;
 - creation and implementation of the marketing plan of the brand (branding);
 - protection of property rights and legal safeguarding of the brand;
 - "fueling" – support in economic terms and through activities (branding);
 - monitoring and control (brand audit).

In addition, a company selling more than one product and/or operating in different markets and nations should decide which brands to use and how many in the light of the so called brand architecture. The issues is to decide whether to use the *corporate brand* (name, logo, etc. of the company which represent the organization as a whole, its history, values and culture) to identify all items of its product range (or some of its products) or create different brands for different products and businesses (brand portfolio). Corporations may define the *range brand* (it can be adopted as an alternative to the corporate brand to sell products in different categories), the *line brand* (this is placed, together with the corporate brand, with the company products perceived as complementary to some extent) and the *product brand* (which identifies the specific nature of each type of product in the company's range).

"Brand architecture is an organizing structure of the brand portfolio that specifies brands' roles and the nature of relationships between brands" (Aaker and Joachimsthaler, 2000). On one hand, a company may prefer to use its corporate brand as a 'Branded House'. In this case the organization uses its own name to identify the whole array of products, thus maximizing the brand extension. When this policy is implemented, the organization achieves economies of scale in communication and distribution and it exploits its positive image by providing credibility to the various stakeholders, while a decrease in sales or the weakening of the brand's positioning related to one single product has the potential to negatively affect all company's goods and businesses.

On the other hand, a company may opt for a multibrand policy (called 'House of Brands'). In this second case a company creates, uses and manages a combination of brands which identify and differentiate the various products and services, within a single category. The management of a brand portfolio appears quite complex because each brand should be considered both as a separate entity and in relation to the others in order to fully benefit from this brand policy. Conversely, this multibranding approach reduces the risks usually associated to the House of Brand Strategy, since the negative performance of one brand does not affect other portfolio's brands. The two mentioned approaches are at the opposite ends of a continuing scale. A company may decide to use the same brand identity for all its portfolio's products relying on the magnitude of the corporate brand or it may define various brands which are independent one from each other and from the corporate brand or choose a position in the middle.

2.2. Brand usage in tourism and the relevance of the destination brand

³ The brand name should have a series of vital characteristics including recognizability, memorability, distinctiveness, attractiveness, emotional meaning, creativity and legal defensibility (Valli, 2003).

⁴ Pastore and Vernuccio (2006) define the logo or mark "as the combination of typographical, figurative and plastic elements".

⁵ The motto or slogan is the final phrase in an advertisement and usually appears after the brand.

An effective and efficient management of brands and brand architecture is important for tourism businesses like for every other organization. In fact, also in the tourism domain customer's perception of the brand value associated to a hotel, for example, can strongly impact on its ability to attract and retain travelers. However, there are additional aspects (or levels) to be considered. First, a company like a lodging firm may decide to join a branded hotel chain (a chain of franchisee hotels, a proprietary chain, etc.), placing its corporate brand and the chain brand side by side. Second, the brand of the destination where the company is located may strongly impact its perceived value.

Consequently, in tourism studies it is necessary to focus on how the hotel brand relates to the brands of the chain, association or network the company belongs to and, even more important, to the brand of the destination (Pencarelli and Splendiani, 2008; Pencarelli, Betti and Forlani, 2009; Aureli and Forlani, 2013).

A destination brand is "a name, symbol, logo, word mark or other graphic that both identifies and differentiates the destination; furthermore, it conveys the promise of a memorable travel experience that is uniquely associated with the destination; it also serves to consolidate and reinforce the recollection of pleasurable memories of the destination experience" (Ritchie and Ritchie, 1998). More recently, Kavartzis (2004), Dooley and Bowie (2005), Kerr (2006), Balakrishnan (2009) and Hanna and Rowley (2008; 2011) emphasize the need to move from destination brand to place brand (like a city, region, nation brand). In this case, since brand management pertains a specific territory, it is assumed (by politicians and academics) that brand management activities and related tourism actions should be attributed to public bodies and inserted in the larger context of territorial government.

A territorial brand or place brand is therefore a promise to the potential users of the area, an expectation of performance and a sign of integrity and reputation. Its proper management requires the definition of the most appropriate brand elements and the most suited means used to convey the brand to its target audience and ensure its appropriate reception in order to provide a unified representation of the different components of the geographical area's offer (Balakrishnan, 2009; Hanna and Rowley, 2011). In addition, as suggested by place brand management models (Hanna and Rowley, 2011) brand architecture is fundamental for the overall performance of the brand.

Literature on brand architecture and place branding suggest that brands of different objects as well as brands of different places can be intentionally managed to link individual brands together and generate strong associations capable of influencing consumer purchase intentions (Dooley and Bowie, 2005; Kavartzis, 2004 and 2012; Hanna and Rowley, 2011). Consequently, it is very important to verify if all the different subjects located in a territory eventually pursue contrasting objectives and communicate a divergent image to travelers.

Lastly, it is essential to preserve harmony in the architecture of a tourist brand also to create and distribute value to local stakeholders. Well known place brands associated to positive values and a good reputation capable of attracting tourists do not only represent valuable sources of competitive advantage for the country. When place brands are consonant with the local actors' values and brands, they can increase the effectiveness of the marketing policy of the latter, increasing the potential benefits achievable.

2.3. Hotel networks

In hotel industry networking strategies are quite widespread. Hotels may informally cooperate with other tourism operators and/or create formal alliances with restaurants, travel agencies, transportation companies, etc. in order to create integrated tourism packages and offer an 'all-in-one experience' and/or they can build horizontal networks, usually in the form of franchising chains (Medina-Munoz and Garcia-Falcon, 2000; Pansiri, 2008). Actually there are several forms of inter-organizational cooperative arrangements used in the tourism sector: Joint venture, Equity participating alliance, Brand sharing, Franchises and licensing, Marketing and distribution agreements, Joint selling or distribution, Sharing information and communication technology, and Joint purchasing and equipment/office sharing (Pansiri, 2008).

At the international level the traditional independent privately owned small hotels seem to have given the way to larger multinationals and multiple brand affiliations (Bailey and Ball, 2006; Lomanno, 2010). According to Slatery (2003) 31 per cent of all hotel bedrooms worldwide were affiliated to a 'branded' hotel chain in 2002, a figure forecast to increase to half of the total by 2030.

International studies suggest that hotels should grow in size to face increasing competition and avoid inefficient management practices due to power and knowledge concentration in the owners-proprietorship hands

(Schulze et al., 2001). On the contrary, Italy seems to be still strongly characterized by small owner-run outlets operating in the same fashion for generations (Ferri, 2009). These hotels prefer informal collaborations and some specific types of contractual modes of cooperation: associations, consortia and product clubs. Management service⁶ and franchisee agreements - typical in US - are here less widespread.

What are benefits of belonging to a hotel chain or franchising network indeed? Brand affiliation brings a well known name (name recognition), brand awareness, marketing activities, staff training, access to bulk purchasing discounts and some services (i.e. a central reservation system, other management systems, loyalty programs) that independent operators might not be able to match. Some of these benefits might be achieved through cooperative purchasing groups or other alliances. Thus, brand affiliation major value consists in a strong brand which translates into higher occupancy rates deriving from customers attracted by the brand's promises of experiencing a certain quality and emotion. In fact, hotel guests rely on brand names to reduce the risks associated with staying at an otherwise unknown property (O'Neill and Xiao, 2006). Moreover, the study of O'Neill and Xiao (2006) indicates that when brand affiliation is associated to a reputation for high quality service, hotels can record an important increase in revenue.

Nevertheless, O'Neill and Carlback (2011) highlight that 'branded' hotel do not always record better financial performance compared to independent operations, especially when high franchising fees are requested. Moreover, although the group or network brand should signal customers the precise quality level they should expect from single hotels, previous research shows that franchising tends to have a detrimental impact on overall system quality when it involves too many subjects (Michael, 2000). The high numbers of hotels belonging to the network does not allow for proper controls in quality from the franchisor, thus single lodging firms might create dissatisfied guests who criticize the brand as a whole and translate into lower occupancy levels for all network's members. Lastly, in case of franchising, it also important to note that branding decisions are controlled by the franchisor while local partners (franchisees) can decide only on lower-risk marketing aspects (e.g. pricing) (Dev, Brown, and Zhou, 2007). For this reason, individual hotel owners need to be sure that the chain's branding strategies are appropriate for its property (O'Neill and Mattila, 2006).

When a formal network or hotel chain is formed, issues of brand architecture arises and different approaches to hotel brand (i.e. logos, names, identifying information) can be adopted. As stated by O'Neil and Mattila (2004), *Choice Hotels International*, for example, preferred a House of Brand strategy (Dooley and Bowie, 2005) for the different hotel concepts ("type of service" offered) like 'quality hotels' vs. 'comfort suite hotels' to simultaneously distinguish hotel brands from each other and identify them as all being part of a unified organization, thus differentiating them from their competition. In other cases, especially in case of property chains, individual brand names disappear and the parent company name prevails for all members. These hotels are usually located in different cities and regions all over the world but they use the brand to signal customers the consistency in the quality offer. In fact, brand names give customers important information about the product/service (Briucks, Zeithaml & Naylor, 2000).

As described above, choices of brand architecture emerge as the outcome of a deliberate decision-making process, usually conducted at the corporate level of an hotel chain by the strategic department. What happens in case of non equity based formal alliances and networks other than franchising? Is this decision and those regarding other brand management activities the outcome of a shared process? Are SMEs alliances dealing with this issue? For example, in the study of Alonso (2010), which focus on Australian SMEs, alliances do not deal with brand aspects. The major expected positive impact is that strong collaborative relationships can potentially enhance a destination 's image with further implications for the area 's promotion and marketability

3. Methodology

⁶ "A management service contract is a long term agreement, of up to ten years or even longer, whereby the legal owners of the property and real estate enter into a contract with the hotel firm to run and operate the hotel on a day to day basis, usually under the latter's internationally recognized name" (Contractor and Kundu, 1998).

In order to collect data from Italian small-sized hotels participating to horizontal networks, authors decided to search them in the Province of Rimini: a quite famous beach location on the Adriatic Coast, known both at the national and international level, with more than 58,015 rooms available and characterized by a high level of competition (many three-star hotels and two-star hotels offering similar services and the same price)⁷. Key and distinctive variables of Rimini's hotel offering are staff cordiality and cheap rates in comparison to other Italian locations (Rossini, 2003)⁸.

From the national dataset of the Chambers of Commerce, authors found only one network contract in Rimini, named "Made in Rimini- Holidays" recently formed (May 2013) by three hotel consortia. It is a network of networks and thus particularly interesting for our research purposes. Altogether the three consortia groups more than 100 hotels, which represents about 10% of the total lodging offer.

Due to time and resource shortage, authors decided to identify three hotels, randomly selected, for each formal alliance. Each single hotel represents a case study (Yin, 2003) whose characteristics and brand management activities have been investigated through direct interviews. Because of the complexity of the topic under investigation which can be hardly translated into closed-ended questions and considering the low response rate of SMEs to mailed questionnaires (see the studies cited by Alonso, 2010), authors decided to conduct face-to-face semi-structured interviews with hotel owners/managers at the single hotels premises.

Interviews regarded the following aspects:

- HOTEL BRAND. Interviewees were asked to express their agreement or disagreement (on a 5 point Likert scale) on regarding brand as a key success factor in the hotel industry, the impact of financial resources on brand success, the actual popularity of hotel brand at local, national and international level. This information is intended to highlight possible gaps between what hotels would aspire to have and what they have achieved so far in terms of brand popularity;

- BRAND MANAGEMENT. Hotel owners/managers were asked to tell the story of how they (or their family) choose the hotel name, logo and payoff in order to understand how the brand identity was designed. Moreover, linkages to or inclusion of territorial brands in the hotel brand were investigated. Questions also regarded the most important activities performed during the last three years to maintain the hotel brand and the amount of financial resources devoted to them, including activities of brand monitoring. Answers are expected to help understand if hotel name is really conceived as a brand and which are most recurrent activities of branding. Particular attention is devoted to brand architecture here considered within brand management activities.

- NETWORK PARTECIPATION. Questions concerned hotels' objectives and expected benefits associated to network's participation.

To increase authors' knowledge of the three networks and provide a richer context for understanding the phenomena under examination, also the President or Vice-President of each consortium were contacted and interviewed. At the same time, authors analyzed official websites and other public documents. In the following paragraphs, there is a presentation of the recently signed network contract, the three consortia and then data derived from interviews with hotel owners are discussed.

4. Case study analysis

4.1. Objectives, members' characteristics and brand of the three formal networks

"Made in Rimini-Holidays" is the network contract built to increase the competitiveness of the hotels belonging to the three consortia that formed it. In particular its strategic objectives are: to develop and qualify members' tourist offer; improve members' ability to define and promote their individual tourist offers; create an integrated tourism offer and promote the territories where they are located; increase hotels' capacity to innovate; identify new market opportunities and augment members' presence on national and international markets. To reach these results, the common entity is

⁷ According to the Provincial Observatory on Tourism, Rimini hotel offer in 2013 is the following: 98 one-star hotels with 18 rooms on average; 244 two-star hotels with 24 rooms; 596 three-star hotels with 41 rooms; 67 four-star hotels with 69 rooms; 2 five-star hotels with 106 rooms.

⁸ Another reason for choosing this specific geographical area is because it is near one researcher's university.

entrusted to promote the area of Rimini and its hotels, enhance members' tourist offer also through the organization of training courses and the conclusion of agreements with suppliers, define a joint communication strategy, create a web site, a common brand, educational tours, commercial initiatives and advertising campaigns regarding both national and international markets. Achievement of these objectives will be measured (not for the moment) every year in terms of number of new clients, improvements of the competitive positioning and clients' satisfaction measured through the use of questionnaires. However, at the time of writing, the network contract has only build its official website filled with institutional information. Direct booking of hotels is not possible, nor foreseen for the future. For our research purposes it is more interesting to analyze the three consortia.

a) The consortium "Hotel Tipici Riminesi" (Typical Hotels of Rimini) was build in 2010, although several of its members had a common experience of collaboration since 2001. It groups 34 hotels (82% are three star hotels while others record lower hotel rankings) located in few fractions of the city of Rimini. These are characterized by the following key elements that are conveyed in all marketing and communication activities: friendliness, attention to local traditions, typical gastronomy and authentic atmosphere and love for the local territory..

These aspects actually build the distinctiveness of the hotels' tourist offer and represent a prerequisite for joining the network. In details, to belong to this consortium members have to own a list of specific characteristics regarding: hotel location (near the sea), structural aspect (a vernacular building style), ambience (the atmosphere should link to local traditions and history also using objects and symbols), management (family run hotels with at least 5 consecutive years of hotel management, family hospitality and a welcoming atmosphere, being, independent hoteliers), food (include local dishes in the menu) and relationship skills (hoteliers distinguishing for warm personality and ability of storytellers). In line with these characteristics both the network's name and logo refer to the city of Rimini emphasizing the local culture and its history. There are not all the key components of a brand identity (pay-off is absent) but the network is aware of its importance and has decided to register the network name. Network's aims are: to promote hotels and the territory where they are located, attract foreign travelers, make joint purchase and offer staff training to the associated hotels.

b) The second network is "Torre Pedrera Hotels e co" created in the form of a cooperative. It is 25 years old and groups 42 hotels (74% are 3 star hotels). Its main goal is to promote a fraction of the city of Rimini named Torre Pedrera, which was marginalized because of its location, by providing information about lodging firms, public services and events to both tourists and inhabitants of the area. In details, the network aims to enhance the uniqueness and identity of the fraction, encourage members to work together, increase hotels' room occupancy (the network's website also works as a booking system) and augment hotels' political bargain power in relation to the Municipality of Rimini and other public institutions. Given these objectives, the network's name was designed to merely emphasize the location and the logo actually represents the tower located in the fraction. However, name and logo were not created nor are currently conceived as a brand. There are no shared values or similarities among hotels which are at the basis of the network brand identity. What hotels have in common is only the location in the same suburb of Rimini. Coherently, the network website does not communicate hotels' characteristics but it promotes the "destination", describing its personality and making promises for a remarkable experience.

c) The last consortium is "Piccoli Alberghi di Qualità" (Small Quality Hotels). It was born in 1999 but it originates from a previous experience of cooperation launched by the Municipality of Rimini at the beginning of '90s and limited to Rimini's lodging firms at that time. Today it groups 31 hotels (61% are 3 star hotels) located in Rimini and other nearby cities (Riccione, Cattolica, Misano). These hotel share several characteristics: a small dimension (a limited number of rooms), being family-run, a friendly atmosphere, a highly personalize concept of hospitality, an excellent price-quality ratio, fine cuisine and genuine home-made cooking. Network's goal is to combine the values of the traditional hospitality of the region (Romagna) with the style and efficiency of modern hotels. Actually, it is the first hotel grouping to receive ISO 9001 Quality Certification in Italy in 2002 because of its hotels' high professional standards, methods and procedures. The motto is: a fine service at a reasonable price. Moreover the consortium is engaged in environmental sustainability and social responsibility. Various members have undertaken the consortium's environment qualification project devoted to safeguard the environment (i.e. activities and staff training in waste disposal, water use, energy savings, etc.), while the consortium itself has developed a set of behavioral rules that are informed by concepts of social and ethical responsibility. In this case there is no link to the territory in network brand's

name nor in the logo. Associated hotels are located in different cities but still within the same Province. Actually, the consortium does not exclude the possibility to expand to other cities in the future.

4.2. Findings from hotels' interviews

Results from case study analysis synthesized in the following figure indicate that small hotel owners consider hotel brand an important key success factor whose popularity strongly depends from the amount of financial resources invested. At the same time they are aware of the poor popularity of their individual hotel brand both at national and international level. Sometimes, hotel brand is scarcely recognized even in the local area of Rimini.

Indeed, the most interesting result emerging from interviews is that hotel owners/managers pay scarce attention to brand and its management. Only one hotel has carefully designed all the three key components of a brand identity. Slogan is missing very often and some hotels have not created a graphical or distinctive sign for their brand. Moreover, the brand name is never the result of a deliberate managerial decision process. Hotel naming comes from personal experiences of hotel owners or it was inherited by the previous hotel management. Although some hotels have recently reviewed their names and slightly improved some components of the brand, the surveyed hotels are still tied to the concept of brand as trademark (a word or symbol which identifies the hotel and can be legally protected) and do not conceive the brand as source of value for the company due to the positive emotions it creates into its target audience.

Hotels	A	B	C	D	E	F	G	H
Star Rating	3	3	3	3	2	2	2	2
Ownership (O) or Management (M)	O	O	M	O	O	O	O	O
N° rooms	94	57	32	58	31	25	25	21
N° employees	20	10	8	15	8	5	6	7
Target	Families; Bussiness men	Families	Families	Families	Families; retired people; couples	Families	Families - young couples	Families; young & senior couples
Foreign tourists %	20,00%	20,00%	15,00%	8,00%	10,00%	10,00%	1,00%	10,00%
N° networks in which participate	3	2	2	1	1	1	1	1
RQ1 – Do small-sized hotels consider hotel brand a key success factor?								
Brand as key success factor	3	3	5	3	4	4	3	4
Impact of financial resources on brand popularity	5	4	5	4	5	5	4	5
Hotel brand popularity (local)	4	5	4	4	2	2	3	2
Hotel brand popularity (national)	4	1	1	1	1	1	1	2
Hotel brand popularity (international)	3	1	1	1	1	1	1	1
RQ2 – Do small-sized hotels devote attention to brand management?								
Origin of the hotel's name	Historical	Historical	Historical	Historical	Historical	Historical	Made ad hoc	Historical
Creation of a brand identity to communicate the hotel	No	No	Yes	No	Yes	No	Yes	Yes
Brand identity system (Logo, Naming, Payoff)	Revision of the historical name in the phase of requalification and enlargement of the hotel	No	Improvement of historical logo and hotel name from a brand management perspective; seasonal slogans	Revision of historical name to emphasize hotel's location "by the sea"	Revision of historical name to communicate the concept of beach and "the sea"	Revision of the logo to evoke the sea and summer (inserting a boat and the sun)	Registered trademark; familiar and easy to remember name; payoff: "Your house by the sea"	Systematic use of logo in hotel communication; payoff: "A small jewel just a few steps from the sea"
Activities carried out to support the hotel brand	Content management on Hotel website, FB, Youtube; trade fair participation (alone and with the consortium)	Content management on Hotel website, FB, Twitter; presence on Travel web site (Tripadvisor & OTA); advertising on newspapers; trade fair participation with the consortium	Theatrical setting, use of mascot representing the summer; content management on Hotel website, FB, Pinterest, Google+; seasonal greetings cards; presence on consortia's websites; trade fair participation (alone and with the consortium)	Renewal of the Hotel website; presence on the tourism portal "Rimini beach"; presence on OTA (Venere.com, Booking.com), FB, Twitter	Content management on Hotel website, FB, Flickr, Twitter, Youtube; promotion on the local free press and internet portals	Advertise on free press; content management on Hotel website, FB, Twitter, Pinterest, Google+; participation to the consortium's website and local tourism portals (i.e. Riminidamare)	Content management on Hotel website, FB, creation of newsletters; limited advertising on newspapers	Content management on FB, Twitter, Google+; participation to the consortium's website and other local tourism portal (i.e. Riminibeach); seasonal greetings; trade fair participation with the consortium
Financial investments in promotion (% of annual turnover)	3,00%	3,00%	7,00%	2,50%	2,50%	5,00%	20,00%	5,00%
Mechanisms of brand auditing (in terms of popularity and reputation)	Monitor Tripadvisor, OTA & social media; direct contact with guests; monitor the N° requests for information received	Monitor Tripadvisor, Google Analytics, Pay per clic	Monitor Tripadvisor; monitor the N° requests for information received	Monitor Booking & Tripadvisor; direct contact and feedback from hotel guests	Monitor Tripadvisor (seldom and only when a new guest review appears)	Monitor Tripadvisor	Monitor OTA, Google Analytics and Tripadvisor	Monitor Google Analytics and Tripadvisor
Territorial (place) brand associated with the hotel	Torre Pedrera – Rimini's Coast	Torre Pedrera – Rimini – Romagna's Coast	Rimini	Rimini	Rivazzurra - fraction of Rimini	Rimini	Rimini	Miramare - fraction of Rimini
Reasons for the choice of the territorial brand	Torre Pedrera is a very quiet place and its image is more consistent with the hotel's target	To highlight the area around Rimini and its characteristics (tranquility)	Rimini has a greater visibility while Torre Pedrera is small and not well known	Rimini is the hotel location	Rivazzurra because it is the specific hotel's location	Rimini is the hotel location	Emphasize hotel's location in the city of Rimini and not in any of its fractions	Rimini is a large city; the fraction indicates customers that the hotel is walking distance from the beach
RQ3 – What's the role of hotels' networking strategies in brand management?								
Reasons for joining formal networks with other tourism enterprises	Cost saving, promotion and marketing; More recently also internationalization	Promotion and commercialization (with on-line booking); To live up the fraction of Torre Pedrera	Cost saving; Communication and trade fair participation; Use of the booking portal	First to enhance the territory, its traditions and products; Second to participate in trade shows; Cost savings	To differentiate from competitors (by emphasizing local characteristics); Create events and activities for clients; Reduce	To increase the capacity of communication; Cost savings; Create activities and services for guests (guided tours)	To increase and communicate hotels' quality; to strengthen the whole category of small hotels in Rimini	To inform customers about the quality of small hotels by using the network brand; Share experiences and problems
Changes in brand management derived from/after the collaboration	No	No	No	No	No	No	No	Yes concept of co-branding
Network brand popularity (local)	2	5	5	4	3	2	3	3
Network brand popularity (national)	2	3	2	1	1	1	1	2
Network brand popularity (international)	1	3	1	1	1	1	1	2
In customers' perception, the network brand replaces/could replace the hotel brand	Yes, if the network brand functions it will prevails (like for hotel chains)	Yes	No	No, however the network brand represents an opportunity	No, however it could be a benefit if it works like for hotel chains	No, the two brands are placed side by side	No, high investments are needed to achieve this effect	No, the two brands are placed side by side

Management activities that could be included in brand management are limited to web marketing, social network communication, advertising on traditional media and internet. Anyway they are not implemented with the aim to exploit hotel brand but are more similar to traditional promotional activities. The amount of financial resources assigned to them is 5% of hotel turnover on average. This corresponds to a limited budget in absolute values which does not allow them to implement an effective communication policy. Coherently, hotel owners usually take care of communication activities in person. Also brand monitoring is carried out directly by the owner or other family members and it consists in monitoring hotel rating and customers' reviews on travel web sites like Tripadvisor and online travel agencies like Booking.com. It is interesting to note that Tripadvisor is used to monitor the brand and it is not cited among the activities performed to sustain the brand, thus it is not used as a communication tool to interact with actual and prospect customers.

Similarly, also hotels' brand architecture does not emerge as the outcome of an analytical process. The link between hotel brand (hotel name above all), network brand and place brand is sometimes absent or is the result of a spontaneous process. This situation is probably due to the weakness of the analyzed network's brand policy. Networks (consortia) have been mainly created to increase the visibility and attractiveness of the territory, promote hotels' touristic offer, create additional services for tourists like city tours and parking and reduce costs, while there was no strategic aim to create a network brand capable to distinguish network's offer from other competitors.

According to hoteliers the network brand has a slightly higher popularity compared their individual brand. With one exception, all interviewees declare that the network brand has greater or at least the same popularity of their organization at both the local, national and international level. Thus, joint activities of communication and promotion are held important in supporting the diffusion of network's image. Nevertheless results are limited to the local arena so far. In the rest of Italy and Europe networks are not famous.

This perception seems to be in line with hoteliers' opinion on network brand's incapability to increase their recognizability enough to be able to replace individual hotel brands in the customers' mind. What occurs for hotel franchising chains is considered impossible by the majority of respondents because it would require too much financial resources and it is believed to works only for proprietary chains. At the moment hotel brand and network brand are put side by side in individual hotels' website and advertising material.

These findings suggest that the opportunity of creating a strong network brand is somehow not fully exploited or maybe not really wanted by the associated hotels. Network brand is not a priority in hotels' networking strategies. Hotels communication and hotel brands mainly leverage on the brand of the territory where they are located underestimating the opportunities deriving for synergies with the network brand. In conclusion there are several challenges for small-sized hotels at both the organizational and network level and several potential improvements to achieve.

However, results are limited to the case studies here analyzed and the local area investigated. Future research steps will involve a greater number of hotels and possible comparisons with medium-sized and large hotels of the same tourism destination could be help identify possible difference due to hoteliers' personal mindset and managerial approach.

References

- [1] Aaker, D. A. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. New York: Free Press
 - [2] Aaker D.A. (1996). *Building Strong Brand*, New York: The Free Press.
 - [3] Aaker, D.A., & Joachimsthaler, E. (2000). The brand relationship spectrum. *California Management Review*, 42(4), 8-23.
 - [4] Alonso, A.D. (2010). Importance of relationships among small accommodation operations around the city of Perth. *Tourism and Hospitality Research*, 10 (1), 14–24.
 - [5] Aureli S., Forlani F. (2013). The role of network contracts in place brand management. Current usage and future possibilities of this new Italian legislative instrument. Paper presented at 4ht International Colloquium on Place Brand Management: Strategic Marketing in Cities, Regions and Nationd, Università di Aosta, 5-6 September 2013.
 - [6] Bailey, R. and Ball, S. (2006). An exploration of the meanings of hotel brand equity, *The Service Industries Journal*, 26:1, 15-38.
 - [7] Balakrishnan, M.S., (2009). Strategic branding of destinations: a framework, *European Journal of Marketing*, Vol. 43, No. 5/6, pp. 611-629.
 - [8] Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of management*, 27(6), 643-650.
 - [9] Briucks, M., Zeithaml V.,&Naylor,G. (2000). Price and brand name as indicators of quality dimensions for consumer durables. *Journal of the Academy of Marketing Science*, 28(3), 359-374.
 - [10] Chathoth, P.K., e Olsen, M.D. (2003). Strategic alliances: a hospitality industry perspective. *Hospitality Management*, Vol. 22, pp. 419-434.
 - [11] Contractor J.F. and Kundu, S.K. (1998). Modal Choice in a World of Alliances: Analyzing Organizational Forms in the International Hotel Sector. *Journal of International Business Studies*, Vol. 29, No. 2, 325-357.
 - [12] Contractor, F. J., & Kundu, S. K. (1998). Modal choice in a world of alliances: Analyzing organizational forms in the international hotel sector. *Journal of International Business Studies*, 29(2), 325–357.
 - [13] Del Baldo M. (2013). Contratto di rete e turismo: la collaborazione aziendale come driver della competitività del settore e del territorio. Un’analisi delle prime esperienze, *Rivista di Scienze del Turismo*, n. 2 (forthcoming)
 - [14] Dev, C., J. Brown, and K. Z. Zhou. (2007). Global brand expansion: How to select a market entry strategy. *Cornell Hospitality Quarterly* 48 (1): 13-27.
 - [15] Dooley, G. and Bowie, D. (2005). Place brand architecture: strategic management of the brand portfolio. *Place branding*, Vol. 1, No. 4, pp. 402-419.
 - [16] Ferri A., (2009). Un’offerta Frammentata. In Celant A., Ferri A. (a cura di) *L’Italia. Il declino economico e la forza del turismo*, Marchesi Grafiche Editoriali, Roma La Sapienza.
 - [17] FitzPatrick, M., Davey, J., Muller, L., Davey, H. (2013). Value-creating assets in tourism management: Applying marketing's service-dominant logic in the hotel industry. *Tourism Management*, Vol. 36, pp. 86-98.
 - [18] Forlani, F. (2005), *Esperienze, Marketing e Territorio*, PhD thesis in Business and Market, University of Genova.
 - [19] Hanna, S. and Rowley, J. (2008). An analysis of terminology use in place branding. *Journal of Place Branding and Public Diplomacy*, Vol. 4, No. 1, pp. 61–75
 - [20] Hanna, S. and Rowley, J. (2011). Towards a strategic place brand-management model. *Journal of Marketing Management*, Vol. 27, No. 5-6, pp. 458-476.
 - [21] Hong-bumm Kima & Woo Gon Kim (2005). The relationship between brand equity and firms’performance in luxury hotels and chain restaurants. *Tourism Management*, Vol. 26, pp. 549–560
 - [22] Hosany, S., Ekinci, Y., & Uysal, M. (2006). Destination image and destination personality: An application of branding theories to tourism places. *Journal of business research*, 59(5), 638-642.
- “Contact author for the list of references”

**An interpretative model for the Web image analysis:
the case of a wine tourism destination**

Monica Fait, monica.fait@unisalento.it
Federica Cavallo, federica.cavallo@unisalento.it
Amedeo Maizza, amedeo.maizza@unisalento.it
Lea Iaia, lea.iaia@unisalento.it
Paola Scorrano, paola.scorrano@unisalento.it
University of Salento, Lecce

An interpretative model for the Web image analysis: the case of a wine tourism destination

Abstract

The paper aims at getting to know the online transmitted image (by a wine tourist destination of excellence) and the relative perceived image (by third actors), through a gap analysis model designed for this purpose.

So, the analysis is structured in different steps:

1) the identification of a wine tourist destination (*best practice*) through the study of the online content posts, by looking up the word “wine” in the top 100 international travel blogs; 2) text mining on the website contents of the DMO selected and on the articles of the blogs selected; 3) use of the interpretative model proposed (AIWA).

The model represent a cause for reflection for DMOs in order to reach: a) a multiple effect of awareness and brand recall; b) increasing the sensorial, emotional and cognitive perception of the destination; c) evaluation of the level of communication of web users and the DMOs’ strategies; d) creation of targeted forms of promotional communication.

Introduction

Wine tourism is growing as a special form of tourism (Charters and Ali-Knight, 2002; Getz and Brown, 2006). Understanding what factors are evaluated by consumers is very important for both wine makers, for the development and strategy of marketing, and policy makers, for the development of the Territory. Competitive positioning is becoming a strategic issue for many wine areas (Williams, 2001), which have taken strategic marketing initiatives to attract high-yield wine tourism and have developed the territory. Moreover, it is important to understand how present and potential tourists perceive specific aspects of wine tourism and how these turn into actual intentions of engaging in consumer behavior.

Wine tourism destinations must reflect on their image. Today they should include functional and symbolic elements but also all intangible attributes that give each region its distinctive appeal as a destination (Echtner and Ritchie, 1993; Morrison and Anderson, 2002; Rosato and Iazzi, 2008; Scorrano et al., 2013) and clearly discriminate such destinations as opposed to others (Cai, 2002).

At the moment, the social web communication is the best driver for building a correct image of destination.

According to the definition by Tim O’Reilly (2007), Web 2.0 is not technology in itself but rather a social attitude, centred on the rediscovery of the value of relationships. The Web is the field in which the knowledge of different areas of investigation is created and assembled.

In particular, in the tourism sector, it is possible to observe an increasing diffusion of online platforms and virtual communities; these are populated by increasingly well-informed and demanding consumers. For this reason it is important to get to know these user generated contents (UGCs) in order to investigate the consumer’s perception of tourism destination – web user talking about (WUTA) – and to profile the main characteristics of the most influential tourist.

Theoretical context

The literature of web communication

The opportunity of sharing experiences and exchanging opinions has, actually, imposed a meaningful overturn in both traditional marketing approaches and business communication paradigms (Hennig-Thurau et al., 2004) by stimulating horizontal cooperative processes and thus transforming consumers from “targets” to “sources” and “channels” of the communication stream. Today the consumer, who is always available for an involvement (emotional and rational) in the process of choosing (Holbrook e Hirschman, 1982a; Hirschman e Holbrook, 1982b), proves to be more volatile in the path of creating a stable relationship with the brand (Firat and Venkatesh, 1995; Firat Shultz, 1997; Fabris, 2003) and mainly inclined at maximisation of experiential value of consumption (Bosio et al., 2011; Resciniti, 2005; Brown,

1993; Prahalad and Ramaswami, 2000; Fabris, 2008). Therefore, the Enterprise needs to seriously evaluate its Customer orientation that, far from the mere adoption of a specific technology, is connected to its culture and reputation. Customer orientation takes shape in the growing capacity of listening and quickly answering to Consumer requests. The enterprise has to encourage and engage consumers by offering, contextually, symbolic (style, sociality, personality, affective value) and pragmatic value (quality/price/performance). It has to create a communicative and relational sphere (Fiocca, Marino and Testori, 2006), when the consumer is positioned in the centre of the marketing process, for stimulating conversational relationships (Stokes, 2000) based on techniques and instruments which take advantage of potentialities of communicational and bidirectional paths (Brioschi, 2005). In this way, informative asymmetries between the Enterprise and the Consumer have been weakened, while individuals' learning circuits have been widened, thus enabling the production of new knowledge through interactions and shared experiences and simultaneously leading to the reinforcement of the consumer empowerment process (Pires et al., 2006).

The literature of wine tourism

The literature of wine tourism is growing and it includes practical development and marketing considerations. The definition of wine tourism has not resulted in a uniform approach. When it is analyzed from the perspective of the traveller's motivation and experience, it is defined as "[...] *visitation to vineyards, wineries, wine festivals and wine shows for which grape wine tasting and/or experiencing the attributes of a grape wine region are the prime motivating factors for visitors*" (Hall et al., 2000). In other studies it is considered from three perspectives: a) a form of consumer behavior, b) a strategy whereby destinations develop wine-related attractions and imagery, c) a marketing opportunity for wineries to educate and to sell [their products] directly to consumers (Getz, 2000).

"*Wine tourism destinations*" are defined as regions that base some or all of their appeal on wineries and wine-related benefits. Wine, food, tourism and arts collectively comprise and are recognized as the core elements of the wine tourism product (Getz, 2000; Hall et al., 2000; Carlsen and Dowling, 2001; Dodd and Beverland, 2001; Telfer, 2001; Williams, 2001; Getz, 2002; Lane and Brown, 2004; Loubser, 2004; Roberts and Deery, 2004; Sanders, 2004; Sparks and Malady, 2004). Other elements are included in this definition because they give each region its distinctive appeal as a destination for wine tourists: a) "*touristic terroir*" which describes the combination of physical, cultural and natural environments (Hall and Mitchell, 2002); b) wine rural country which comprises leisure, cuisine, scenery and outdoor activities -visitor facilities and events at wineries, wine-themed interpretation and information centers, wine museums, wine-themed villages, wine country tours- (Williams and Dossa, 2003; Hashimoto and Telfer, 2003), the natural resource -land and water, labor, capital, and infrastructure inputs necessary for grape growing and wine making- (Cambourne et al., 2000; Williams and Dossa, 2003) and the specific impacts caused by wine-related tourism -development of services and facilities in agricultural areas, and new and increased spending patterns- (Hall et al., 2000).

The appeal of wine regions has to be based on the "difference of place" and these differences must be branded (Bruwer, 2003). In this paper, therefore, the wine tourism destination refers to its geographic area which, on the basis of the specific resources of tourist *terroir* (Hall et al., 2000; Peters, 1997; Hall and Mitchell, 2002; Telfer, 2001), may build processes of destination management directed towards these market segments which recognize the *value-proposition* of the *wine-related* destination (Rosato and Scorrano, 2010).

The literature of image of wine tourism destination

In international managerial literature, the topic was approached by applying four different perspectives (Elliot et al., 2011): the importance that a destination image gains in the process of the tourist choice (Woodside and Lysonski, 1989; Pearce, 1982); the calculation of the destination image through the definition of specific models (Echtner and Ritchie, 1991); the analysis of the image creation process (Baloglu and McCleary, 1999); the identification of positive effects for destination in terms of attractiveness and competitiveness associated to its positive image (Tapachchai et al., 2000).

Since the initial theorizations (Gunn, 1972; Mayo, 1973), the subject relating to image has been of fundamental importance in the theorization literature on destinations (Blain et al., 2005; Kaplanidou and Vogt, 2003; Nandan, 2005; Lassar et al., 1995), thus becoming a critically important success factor which is able to act in terms of promotion, distribution and the development of tourist products (Sonmez and Sirakaya, 2002; Pikkemaat, 2004), as

well as bringing benefits in terms of distinctive features, profitability and innovation (Pencarelli and Gregori, 2009). If, in actual fact, tourists consider destination in the same way as any other product, by evaluating the tangible and intangible features (Clifton, 2003; Murphy, 1998; Ward et al., 1999; Beerli and Martín, 2004; Florek, 2005) through which an organic process of functional, symbolic and experiential elements converges (Chon 1990; Foster and Jones 2000; Gartner 1993; Kim and Yoon 2003; Walmsley and Young 1998), it is obvious that the development of a positive and highly distinctive image is crucial, not only in terms of identification and the positioning of the specific tourist destination (Kapferer, 1997; Pappu et al., 2005; Ries and Trout, 1973), but also for the creation of a solid competitive edge (Baloglu and McCleary, 1999).

Hypotheses Development

The present contribution is part of the studies relating to the image of tourist destinations. In actual fact, the latter are called to reflect upon their image by taking into consideration, not only the functional and symbolic aspects, but also those characteristics which are mainly immaterial thus rendering them unique (Echtner and Ritchie, 1993; Morrison and Anderson, 2002; Rosato and Iazzi, 2008) and clearly different from other competitive destinations (Cai, 2002). The approach becomes innovative due to the fact that the creation of a communicative and relational image sphere goes back to techniques and instruments that stimulate conversations (Stokes, 2000) taking advantage of the bi-directional communication potentialities offered by the Web (Brioschi, 2005).

Present discussions on online communication are therefore going to be considered – with particular reference to the 2.0 Web (Blanchard, 2011; Di Fraia, 2011; Castronovo and Huang, 2012; Thrassou and Vrontis, 2008) – assigning a fundamentally important role (Tapscott, 2008; Armano, 2008; Wilson, 2008) to the “interaction”, the “co-creation” and the “socialization” of values and contents in the attainment of positive performances in terms of image perception.

For this purpose the paper introduces an analysis which deals with online destination image suggesting the a) identification of the main themes dealt with and their importance in communicating destination image; b) highlighting the eventual gap existing among what is communicated by the DMOs, what is transmitted by third actors (bloggers) and what is perceived by actual or potential tourists (fans); c) evaluating the efficiency of web communication activity. In actual fact, the experimentation of the model takes place through the case study technique on wine destinations in order to observe the image transmitted by the DMOs, perceived and transmitted by bloggers as well as that perceived by the WUTAs. Assuming that, in particular, present or potential wine tourists may perceive wine destination using as cognitive keys what has been communicated by the DMOs and by travelling bloggers, this empirical analysis hypothesizes that:

H1: the communicative online process of a DMO focuses around specific constitutive features of the core elements of a wine destination, intended at getting the actors within this sector (specialized bloggers, tourists, tour operators, travel blogs, news, etc.), to allocate the very same importance to these elements once they have been perceived;

H2: the effectiveness of the communication process and the perfect balance resulting from what has been conveyed by the DMO communication process as perceived and transferred by third actors.

An interpretative model for the Web image analysis

The interpretative model, hereafter defined as **AWIA** (*Answering web image analysis*) has been conceived as follows:

- Regarding web information and its interpretation, the perspective of *question answering* modified and adapted to *marketing oriented* (Voorhees, 1999; Cooper and Ruger, 2000; Kwok et al., 2001);
- For the elaboration of data received, the logic of quantitative – *content analysis* (Berelson, 1952; Krippendorff, 1980; Weber, 1990); the *text mining* perspective (Bolasco, 1997; Feldman and Sanger, 2007), responds adequately to the informative purpose of the model. As a matter of fact, the differences and similarities of the conveyed messages are highlighted by the textual analysis, and, as they are social instruments, the process of the consumers’ co-creation of topics are highlighted too.

Two operational dimensions are foreseen:

1. *pre-processing*: a preparatory phase orientated towards the identification of three variables corresponding to the following queries:
 - a. *What?*: the identification of the target analyzed and the eventual selection of related sub-categories that may better qualify it from a semantic point of view (wine destination, mountain destination, ethnic destination etc.);
 - b. *Who?*: the identification of types of individuals from which information is to be gained (tourist, blogger, fan, tour operator etc.). The identification of such a variable is strictly dependent on the nature of the source analyzed.
 - c. *Where?*: The identification of two spatial dimensions: 1) geographic, aimed at dividing up the information according to how intensely the phenomenon needs to be analyzed (e.g. information gathered from *Google Spain* to analyze Spanish tourists speaking of the Napa Valley); 2) virtual, consisting in the identification of non-structural sources where the research needs to be carried out. Adopting a bottom-up logic, a crawling process takes place based on a set of research queries that highlight the textual contents that result being closer to the *research objective/informative source* relationship. In this way data collection is achieved focalizing on the research and the type of individuals that are observed;
2. *processing*: in such a phase, *data collection* is submitted to *text mining* and the output is interpreted as a result of the following *question answering* aimed at transforming useful cognitive data into decisional goals:
 - a. *How?*: how one speaks in non-structural pre-identified sources in order to identify the topics relating to messages and conversations conveyed which were relevant in the research. In this context, words identifying destination core elements are included, whether they are tangible (Getz, 2000, 2002; Lane and Brown, 2004; Sparks and Malady, 2004) or intangible (Hall and Mitchell, 2002; Williams and Dossa 2003);
 - b. *Why?*: why one talks – elements relating to utilitarian and functional value, which is assigned to a destination in a psychological point of view, are considered. Words indicating *psychological attributes* are included (Williams, 2001; Hall and Mitchell, 2002; Bruwer, 2003);
 - c. *When?*: when one talks, that is, looking for subjective and emotional benefits related to the need for entertainment. In this way it is possible to observe the hedonistic value of a destination, which is not necessarily related to the moment of consumption but rather to the research for information. Words relating to *Pleasure and enjoyment* are found in this category and they are an expression of the *Symbolic e Experiential* value (Hall et al., 2000; Williams, 2001; Hashimoto and Telfer, 2003; Cambourne et al., 2000).

The final aim of the present model is to meet the engagement needs of the consumer. For this purpose, the answer to each question corresponds to the following interpretations of the phenomenon:

- *Functional dimension*, which relates to the *Traditional core resources (How?)* of a destination and for this reason the intrinsic and extrinsic features of this very same destination are included;
- *Holistic dimension*, this is the process of psychological abstraction that features the perception of the elements that characterize the destination. These are words that identify the relationship with history, art, landscape, traditions and, because of this, defined in the model as *psychological attributes (Why?)*;
- *Sensitive Dimension*, which identifies the emotional abstraction that accompanies the evaluation of a destination. Therefore it comprises words, mainly adjectives, which represent *Symbolic e Experiential attributes (When?)*.

Empirical Research Methodology

The experimentation of the model has taken place adopting a *case study* approach (Malhotra, 1993; Johnston et al., 1999; Yin, 1984; Gummesson, 2000) which allows access to a remarkable quantity of specifically qualitative data and offers wider suggestions on the nature of the phenomena rather than those adopted by the quantitative method (Dubois and Gibbert, 2010; Easton, 2010; Piekkari et al., 2010; Dubois and Gadde, 2013).

In the following phases the empirical framework foresees:

1) *pre-processing* identification of the:

- *wine destination* where the model is tested (*What?*). The first step consists in drawing out the first *Google.com* pages obtained by using the key search words “travel blogs”. The blogs were submitted to web metrics as

suggested by *Alexa* (<http://www.alexa.com>) using a classification system based on traffic, on popularity and on site engagements. In this way 100 travel blogs were reached. During the second step, 30 posts for each blog were taken out using the word “*wine*” in the search tool of each one. In this way data collection of 2,631 articles was obtained (about 505 contextual word pages). The corpus was submitted to an automatic procedure of lemmatization by using the *T-Lab software* (the re-elaboration of 1 text, 4,738 elementary contexts, 17,448 forms, 13,864 lemmas, 203,284 occurrences with a threshold equal to 12). In this way, the main keywords (1,531) were identified – keywords, out of which, destinations having a major number of occurrences were drawn out. Amongst these, the most frequently quoted wine destination is the Napa Valley (freq. 106), the wine destination which refers to those geographical areas that, owing to territorial tradition or to marketing choices, have taken the decision of linking their wine vocation to tourism.

- *subjects* to be analysed: according to the present analysis, these are the DMOs, the first 100 travel blogs identified and the blogger fans (*Who?*).
- *spatial dimensions* (*Where?*), from a geographical point of view, no limit has been taken into account. As a matter of fact, the blogs chosen were drawn out using *Google.com*. Regarding the sources, the following have been considered: a) the DMO’s website “Visit Napa Valley” (<http://www.visitnapavalley.com>), drawing out 480 word format pages; b) the articles edited by bloggers referring exclusively to the wine destination examined, drawing out with the keywords “wine Napa Valley”. 331 word format pages were pointed out which corresponded to 179 blog articles; c) the comments in response to the articles by bloggers, analysing about 222 word format pages, corresponding to 1,690 comments;

II) processing: three texts have been normalized and lemmatized through the T-Lab software. The data collection obtained is made up of the following three levels: a) for the company website: 2,192 elementary contexts, 7,932 forms, 6,370 lemmas, 91,167 occurrences and 992 keywords (with threshold equal to the resulting 10); b) for the articles edited by bloggers: 3,475 elementary contexts, 15,060 forms, 12,029 lemmas, 161,432 occurrences and 498 keywords (with threshold equal to the resulting 10); c) for comments to the article: 2,026 elementary contexts, 7,896 forms, 6,628 terms, 65,249 occurrences and 683 keywords (with threshold equal to the resulting 7). Before proceeding to text mining, three sub data collections have been created, taking exclusively into consideration the words that appeared to have a lexical relationship with the words “*wine*” and “*destination*” in order to reach a better focalization of the phenomenon analysed. The statistic method used for text mining is: a) *correspondence analysis*, aimed at pointing out the most important macro themes in each context analysed and highlighting eventual homogeneities or differences (H1); b) *cluster analysis*, pointing out groups of words that could represent the *core communication* components of the destination as well as the relative importance (weight percentage) given and the eventual gap with respect to the perception of third actors (H2). For both methods, the interpretative phase was carried out adopting the “3 *question answering perspectives*” identified in the AIWA model.

Results and Findings

Guiding dimensions of web communication of image

Text mining, through the analysis of correspondences has been able to spread the dispersion of the data within a limited space, illustrating the polarization of variables and lemmas by means of factorial axes on a Cartesian graph. The axes on the matrix correspond to the factors, that is, to the newly created variables that justify the different oppositions amongst the factor poles. Factorial polarity, that is the contrast on the horizontal and vertical axis of the graph, is determined by the *value test*; this index has a threshold value of 1.96, that is equal to the more common significant statistics (p. 0.05), and a positive or negative sign. With this method, it was possible to synthesize the information obtained from the blog, the forum and the community in a bi-dimensional space. In this way, the relationships amongst the context units in terms of imminence-distance (similarity-difference), have undergone a preliminary analysis.

By analysing the following figure (Fig. 1), it is possible to observe that:

- 1) DMOs have a more relevant thematic content – characterized by the enrichment of lemmas around the same variable “DMOs” – represented by words recalling tangible attributes of a destination like the services (hotel, spa,

- resort, etc.) and the territorial elements (territorial areas, towns, etc.). It is therefore believed that for DMOs, the *How?* component has a more important role in the communicative process with respect to other elements;
- 2) Bloggers who resort to words associated mainly to *wine* (taste, smell, grape, etc.), to the experiential virtue of consumption (enjoy, event, experience etc.) and to the territory (Valley, country, Napa, California, San Francisco, Los Angeles etc.). In this way, as opposed to the previous point, the elementary forms *Why* and *When* appear to be more frequent. It is however noteworthy when considering the positioning of words on the quadrants, that the separation from the DMOs is not net. As a matter of fact, there are terms that tend to converge towards the centre and this recalls points of contact in communicative elements;
 - 3) The users whose words appear to be particularly disconnected and are not indicative of a specific macro-theme. In particular, they appear to be very distant from the DMOs, which are positioned in the opposite quadrant.

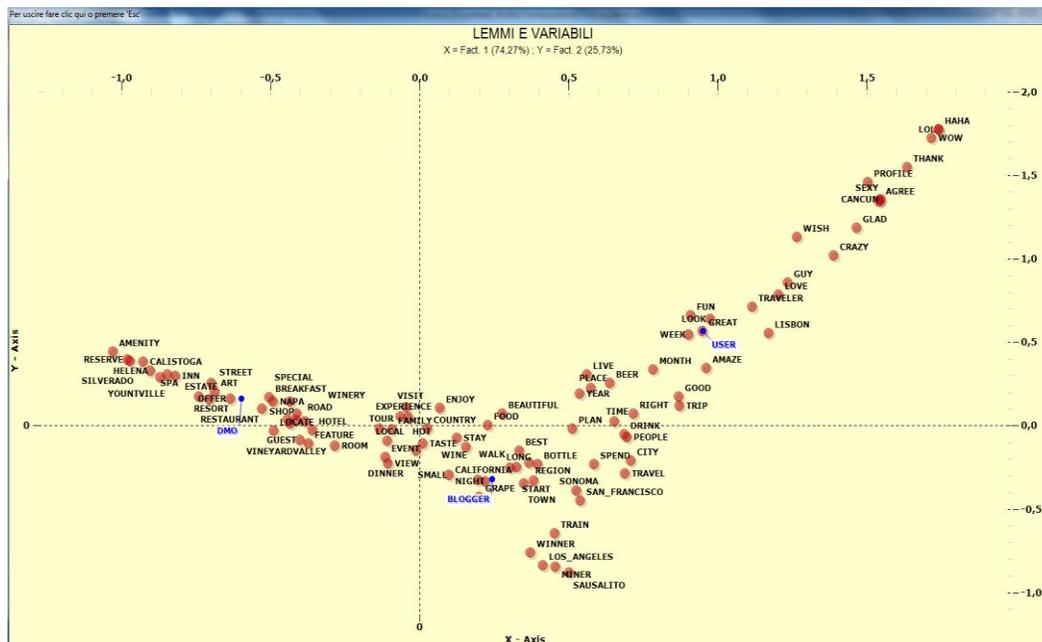


FIG. 1: FACTOR PLAN ANALYSIS OF THE VARIABLES-TERMS CORRESPONDENCE

The initial text mining phase has therefore highlighted the presence of context unity (*words*) that, when led towards the internal single question answering, highlights the web communication guiding dimensions of the DMOs which are mainly orientated towards the traditional *core elements* of the destination (*How?*) and the tendency to overlook the symbolic and experiential elements of the wine product connected to it. Vice versa, the process of perception and transfer of elements comprising the *image* of a destination by bloggers is on a larger scale because, as was earlier mentioned, they have a tendency to use hedonistic (*Why?*) and experiential (*When?*) words.

Such preliminary studies do not complete hypothesis 1 and, for this reason, a more intense analysis has taken place in order to evaluate whether there are groups of lemmas that may be homogeneous with specific communication drivers and with the internal perceptions of each context analysed.

Group of words which represent the specific communication driver

The apparent presence of points of contact between the DMOs website and the blogger has, as a matter of fact, led towards a consequent in-depth analysis in order to understand whether the aggregation of words within each context may be characterized by a level of homogeneity able to generate groups of terms that could represent the *specific*

communication driver per single context as well as the specific importance placed on each driver in the process of image communication.

In order to achieve this, a first cluster analysis phase has been carried out where inputs are represented by lemmas subdued to the processing phase and for each context analysed. The hierarchical procedure (Johnson, 1967; Everitt 1979) was analysed using the *Ward method* as it allows the aggregation of those specific groups which have a minor increase of deviance “within” the very same groups, thus guaranteeing major homogeneity within the elements. Seven clusters were taken out for the DMOs as well as for the bloggers and, the creation of clusters took place excluding the words having $p > 0.50$.

For the users, the CHI² significance test has highlighted the impossibility of recurring to cluster analysis; this is related to the high number of lemmas in the conversation. For this reason, such an in-depth content analysis will take place in a subsequent research.

The phase of output interpretation obtained with data collection clusters from the DMOs websites and from blogs, is based on the analysis of lemmas that fall back into each cluster and on the allocation of each one with a definition/category representing one aspect of the phenomenon. For this reason, the following clusters have been identified made up of lemmas that have three interpretative dimensions:

1. *Wine* – in this cluster the *functional dimension* is represented by words linked to the product in the strict sense (Sauvignon, Cabernet, Appellation, grape, taste, blend, balance blend, balance, Pinot, noir, Merlot Blanc, Varietals, Chardonnay, Vineyard, etc.) and to the areas and the production techniques (Winery, estate, Cellar, distillery, winemaker, winemaking, etc.); the *holistic dimension* of lemmas such as Mountain, hill, Oakville, Silverado, knoll, Train, Napa, region, Sonoma, California etc.; the *sensitive dimension* of words that express the experiential element of consumption (Visit, vintage, romantic, tasting, boutique etc.);
2. *Destination services* – which groups words identifying a) tourist services (Hotel, resort, tour, room, Inn, Services, golf, package, Guest, park, airport, bath, Transportation etc.) and sport and free-time activities (ride, Pool, tennis, golf, massage, body, spa, Wellness, etc.) identifying the *functional dimension*; b) territorial references (Valley, country, escape, Lake, San Francisco Golden, Meadowood Meritage, cove, etc.) for the *holistic aspect*; c) adjectives expressing the pleasure of travelling (experience, luxury, treatment, relax, pleasure, hospitality, etc.) and thus the *sensitive dimension*;
3. *Environment and territory* – this is the cluster made up of terms recalling the natural elements (woods, memory, sightseeing, redwood, nature, monument, tree, hillside, cathedral, forest, grove, creek, animal, fall, etc.). This does not exist for DMOs and for bloggers when considering the nature of the words recalled – mainly found in the *holistic dimension*;
4. *Art and Culture* – this includes words expressing art and culture in the area. Art, culture, theatre, music, perform, artist jazz, opera, museum, exhibition, dance, entertainment, festival are words representative the *functional dimension*; landmark downtown, Napa, Southbridge, heritage, valley, landscape, etc., these represent the *holistic value* of the phenomenon; night life, artistic, collection, historic, restore, night, lovely, fine, celebration, original, character, inside, attract, showcase, innovative, for the *experiential aspect*;
5. *Food* – this comprises names and adjectives recalling the relationship with food. The *functional value* is represented by words like chef, cook, shop, culinary, open table, ingredient, food, café, dinner, grill, beer, kitchen, bar, lunch, cuisine, table, pizza, bistro, marketplace, market, store, specialities, fish, bakery, pizzeria, farmer, wine bar, meal; the *holistic dimension* represented by vine and wood; the *sensitive dimension* by fresh, local, seasonal, Napa style, organic, adventure, executive, casual, delight, innovative, authentic, lounge, love, story, specialities;
6. *Regions and Cities* – these are lemmas indicating places and urban/geographic elements. This cluster is totally inexistent for DMOs while for bloggers the following words gain importance referring to the *functional dimension*: City, San Francisco, Sausalito, bridge, ferry bus Alcatraz Pacific shop car Island; the *holistic dimension* gain importance using the following terms: bay, beach, park, ocean, coast, attraction, statue, build, landmark, sea, sunset, architecture, experiential with golden, treasure, art, museum, night life, walk, pleasure, heart, live, night, culture, famous, picturesque;
7. *Information on Travel Experiences* – comprising lemmas indicating elements that ease the holiday. The *functional dimension* is represented by words relating to: information, property, Inn, bed, breakfast, B&B, lodge, hospital, location, factory, hotel, country, cottage; the *holistic dimension* of words like Helena, Canyon, Calistoga, Oak,

knoll and the *experiential* from words like facility, health, premium, win, adventure, relief, meet, happy, inspire, lifestyle, event, love, funny, passionate.

The above-mentioned procedure was used separately for the two contexts and there was a tendency to compare the clusters analysed. As can be seen in figure 2, there is a different incidence in the creation of core communication. In actual fact, the DMOs are characterized by destination services clusters has an incidence of 47.04%, followed by food clusters at 21.76% and by wine clusters at 18.10%.

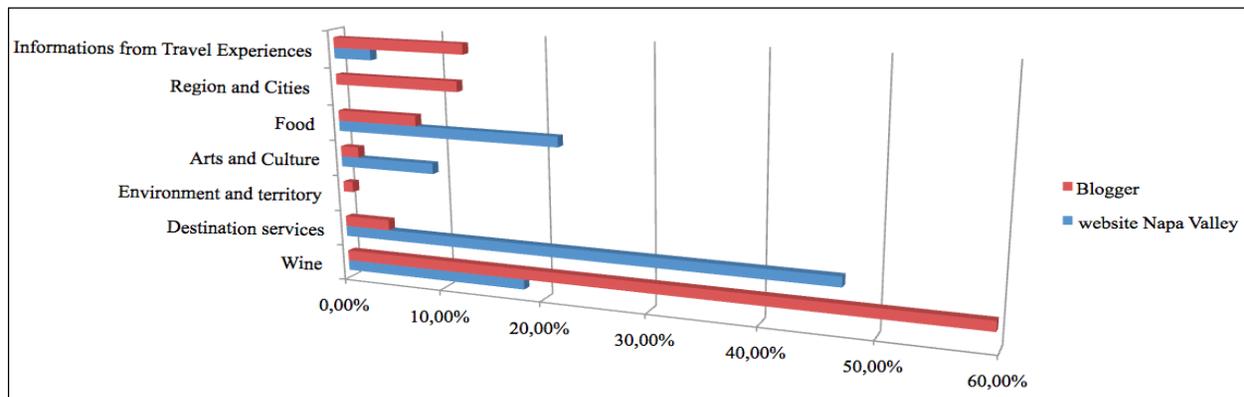


FIG. 2. CLUSTERS OF THE CONTEXTS ANALYSED

The figures, therefore, seem to show the tendency the DMOs have to communicate their destination online thus placing, substantially, gradual importance on all elements without, necessarily giving too much importance to the role of wine. The goal is that of a synergic representation of elements, symbolizing in this way a passage from a simple vocational territory of wine production towards a wine tourism destination; this seems to be obtained – from a communicative point of view – thanks to the synergic valorisation of its material and immaterial components around the territory-wine relationship.

Such analysis seems to show a part of the H1 hypothesis for which the DMO online communicative process is founded on the concomitant importance belonging to attributes of the two core elements – *wine and destination*. All that needs to be done is to observe that the sum of the three clusters characterizing the communicative online strategy – *Destination services, Food, Wine* – illustrate about the 87% of the phenomenon. At the same time, however, there is a gap between the elements communicated by the DMOs and those perceived and transmitted by the bloggers. Such a result does not seem to confirm the second part of the H1 hypothesis represented by the harmony between communication and perception by third actors. The *core communication* perceived by the latter is thus characterized by the importance of cluster “wine” which alone illustrate 59.65% of the phenomenon, the other clusters being somewhat limited.

According to what has been analysed, a few interesting considerations on the second research hypothesis need to be taken into account:

- a. There is an obvious balance between communication (DMOs) and the acknowledgement of the message (bloggers) regarding the *functional dimension* of the phenomenon. As a matter of fact, regarding Napa Valley, there is an exact valorisation and a relative perception of the structural elements of the two main components of wine tourism destination (*wine and destination*);
- b. Major care should be taken of the psychological abstraction process that the receiver launches. This can be seen in the wider view of the value proposition which appears to be distributed amongst all clusters highlighting an interest for the *land-wine* relationship with a particular acceptance of the naturalistic elements (as demonstrated by bloggers);

- c. A process of abstraction which is completed by the *emotional dimension* where perception and importance given by bloggers to the land-wine relationship happen to be greater and more complete as opposed to that transmitted by DMOs .

Such considerations confirm that the perfect balance (H2 hypothesis) is not an absolute condition for obtaining an adequate communicative positioning but it is undoubtedly necessary in the long term. As a matter of fact, the existence of a process of psychological and emotional abstraction, which is in truth active in the receiver, must perceive that the simple communication of structural elements is non-sufficient. This needs to be emphasized by the holistic and sensitive dimension of the land-wine relationship so that, the tale of the territory, as well as its tradition, its culture, its emotions experienced at the moment of consumption may turn into relevant information for whoever chooses that territory or simply needs to get information.

Conclusions and managerial implications

In the present competitive context, this paper intends highlighting the fact that web 2.0 tools are important in the process of image creation and communication of a territory. Today, the creation of the relational and communicative sphere with the customer takes place by adopting techniques and tools that encourage conversational relationships; they exploit the bi-dimensional potentiality of communication through which the actors are, not only transmitters (DMO websites) but also receivers of messages (bloggers and fans).

The originality of this study consists in suggesting, in the important branch of research of destination image, a model of analysis through which observing the relationship between the online communication of the image and the reception of its elements by means of web 2.0 tools.

The model herewith suggested, inspired by the consumers' engagement need and tested by using *case study* techniques, has given proof of its valid interpretative course by:

a) Identifying the main themes dealt with and their importance in the communication of the destination image. In this analysis, the core online communication of DMOs move around a synergy of three main topics - *Destination services, Food, Wine* – that together illustrate 87% of the phenomenon;

b) Highlighting the eventual gap between what has been communicated by DMOs, what has been perceived and transmitted by bloggers and what is perceived by fans. In actual fact, the gap between transmitter and receiver takes place when the clusters relative to DMOs and bloggers are confronted. As a matter of fact, for the latter, “wine” cluster alone illustrates 59.65% of the phenomenon. This aspect is a limit of empirical methodology and needs further study. A further in-depth analysis on the topic dealt with will take place gearing it towards the qualification and quantification of the importance of lemmas within each cluster in order to evaluate in an exact manner their interpretive dimensions rendering them comparable with each other.

c) Evaluating the efficiency of their web communication. The empirical results have, in actual fact, highlighted how the perspectives regarding the analysis carried out result being adequately structured in order to reach the increase of useful information. In actual fact, the case study has highlighted how the perfect balance hypothesized between transmitter and receiver is not an absolute condition aimed at obtaining an adequate online image but it becomes undoubtedly necessary in the long term. In actual fact, the existence of a psychological and emotional abstraction process which is truly active in the receiver is non-sufficient when relating to the simple communication of structural elements. This needs to be reinforced through the *holistic and sensitive dimension* of the land-wine relationship in terms of telling the story of the territory, as well as its tradition, its culture, its emotions experienced at the moment of consumption as it may turn into relevant information for whoever chooses that territory or simply needs to get information.

Generally speaking, the interpretive course of study carried out seems to lend itself to and also applied to other themes as it is an integral part of text mining techniques. Indeed, the information obtained is transformed into useful acquisitions of entrepreneurial decisions as it identifies and simplifies those very same elements through which enterprises define and reinforce their competitive strategies, bearing in mind, in particular, the co-evolution of web contents so as to reach: a) a multiplication effect of brand recall awareness; b) the increase of sensorial, emotional and

cognitive perception of the destination; c) the evaluation of web users' level of communication with respect to the strategies adopted by DMOs ; d) the creation of forms of well-focused promotional communication.

References

- [1] Armano, D. (2008). Brand Interactions are the Future: Be Prepared with an Interaction Designer. *Advertising Age*, 79(17), 24.
- [2] Baloglu, S., & McCleary, K.W. (1999). A model of destination image formation. *Annals of Tourism Research*, 26(4), 868-897.
- [3] Beerli, A., & Martin, J.D. (2004). Factors influencing destination image. *Annals of Tourism Research*, 31(3), 657-681.
- [4] Berelson, B. (1952). *Content Analysis in Communication Research*. Glencoe, Ill: Free Press.
- [5] Blanchard, O. (2010). *Social media Roi: sfruttare le tecnologie social e viral per fare profitto in azienda*, Hoepli, Milano.
- [6] Bolasco, S. (1997). L'analisi informatica dei testi, in Ricolfi, L. (a cura di), *La ricerca qualitativa*, Roma, NIS.
- [7] Bosio A.C., Lozza E., & Novello D. (2011). La crisi dal punto di vista del consumatore. *Micro e Macro Marketing*, 1.
- [8] Brioschi, E.T. (ed.) (2005). La comunicazione totale d'azienda nel contesto internazionale. *Comunicazioni Sociali*, 1(1), 9-52.
- [9] Brown, S. (1993). Postmodern Marketing?. *European Journal of Marketing*, 27(4), 19-34.
- [10] Bruwer, J. (2003). South African wine routes: some perspectives on the wine tourism industry's structural dimensions and wine tourism product. *Tourism Management*, 24(4), 23-435.
- [11] Cai, L.A. (2002). Cooperative branding for rural destinations. *Annals of Tourism Research*, 29(3), 720-742.
- [12] Cambourne, B., Hall, C.M., Johnson, G., Macionis, N., Mitchell, R., & Sharples, L. (2000). The maturing wine tourism product: an international overview, in Hall, C.M., Sharples, L., Cambourne, B., & Macionis, N. (Eds), *Wine Tourism Around the World*, Butterworth- Heinemann, Oxford, 24-66.
- [13] Carlsen J., & Dowling R. (2001). Regional wine tourism: a plan of development for Western Australia. *Tourism Recreation Research*, 26(2), 45-52.
- [14] Castronovo C., & Huang L. (2012). Social media in an Alternative Marketing Communication Model. *Journal of Marketing Development and Competitiveness*, 6(1), 117- 131.
- [15] Charters S., & Ali-Knight J. (2002). Who is the wine tourist?. *Tourism Management*, 23, 311-319.

Contact author for the list of references

**Recovery and revitalization of disadvantaged areas by transfer of “ethical capital” –
Some empirical evidences in the wine sector.**

Maria V. Ciasullo, mciasullo@unisa.it

Giuseppe Festa, g festa@unisa.it

Department of Business Studies and Researches (MIT), University of Salerno, Italy

Although the paper is the result of a collective scientific work, the paragraphs must be assigned as follows: 1 and 7 to both authors; 2, 3 and 4 to Maria Ciasullo; 5 and 6 to Giuseppe Festa. Corresponding author: Maria V. Ciasullo, Department of Business Studies and Researches – Management & Information Technology, University of Salerno, Fisciano (SA)

Recovery and revitalization of disadvantaged areas by transfer of “ethical capital” – Some empirical evidences in the wine sector.

Abstract

In business studies, territory was previously considered in a structural view (as a mere reservoir of resources) and then as an expression of a dynamic system of interpersonal relationships, benefiting from contextual resources having a relational, cognitive and organizational nature. In this view, many perspectives and different contributions analyze the interdependence that exists between businesses and communities. It is therefore interesting to introduce a perspective able to examine the path from the knowledge economy to the relationship economy, in which the ethical capital of entrepreneurial actions becomes an intangible asset essential to the vitality of the territorial system. The paper is divided into two parts: the first has outlined a theoretical model of territorial social responsibility; in the second, a qualitative study examines the experience of “Libera Terra”, with a focus on the wine sector. Social cooperatives operating in the lands confiscated from organized crime have been studied, to bring out their (possible) transfer of “ethical capital” to the territory. The empirical analysis, with an exploratory nature, allows to apply the theoretical model proposed in the storytelling of the case study. Finally, the paper conceptualizes some scientific and managerial implications about the transfer of “ethical capital” from the business to the territory.

1. Introduction

In current corporate scenarios characterized by increasing competitiveness at international scale, territory is taking on a relevance which had seemed to have weakened with the onset of “globalization”. Agro-alimentary products, craftsmanship and know-how on the part of individuals or groups, so covering the main economic sectors (primary, secondary and tertiary), are once again claiming prominence also thanks to the capacity of the respective sources of having and representing a specific identity, fundamental for defining the “citizens” of a globalized world.

In some cases, reference to territory would seem to constitute a weapon of unquestionable value for (traditionally) more developed countries, which seem to have succumbed in terms of “pure” competition to emergent countries that up to recently, could only be defined as developing. An inimitable factor is “territory of origin” (“country of origin” in the literature of international marketing). This attribute needs to be preserved especially in the face of clumsy efforts to imitate Made in Italy products (we may think for example of the “Italian sounding” for agro-alimentary foods).

Territory however is not merely a source of utility above all if one considers not only *hard* assets (such as landscape, subsoil or infrastructure etc.), but above all *soft* assets (such as society, culture, identity, community, etc.). In this respect the present paper attempts to analyze the potential entrepreneurial dynamics in act in disadvantaged territories (that so far have been object of a not particular attention in the literature of business studies, excluding the work of De Chiara in 2012), in particular in areas where there is an “ethical” disadvantage by virtue of a significant presence of organized crime. By means of the case study “Libera Terra”, in fact, specific entrepreneurial experiences have been highlighted as concerns the wine industry in Sicily and Apulia, in particular with reference to the management of lands confiscated from organized crime. It was thought that a such “virtuous” behavior could explain the beneficial effects also (above all?) in social and cultural terms. A specific contribution of our paper furthermore, concerns the devising of a model of territorial social responsibility in which “ethical capital” acquires great relevance.

2. A general overview on the contribution of territory to business development

Territory has always represented a constant component of socio-economic development. Up to the early 1970s, in scenarios basically uncharacterized by complexity, from a reductionist-structural perspective based on the analysis of objective resources as an artificial space to plan rationally for productive needs (Rullani, 2003), territory was thus considered merely as a “container” within which individual activities, individual enterprises and individual administrations (as separate monads) operated independently one of the other. After the economic crisis in the 1970s

on the contrary, location and development logics were no longer interpreted in terms of excluding the territorial context. On the basis of Marshall's contributions, territory began to take on great relevance for enterprises as a source of relations through which to develop skills for incrementing competitiveness (Marshall, 1919; Becattini, 1979; Becattini, 1987; Camagni, 1991; Porter, 1998). The literature, dealing in particular with the issue of local development (Bagnasco, 1977; Becattini, 1989; Fuà, 1983), clarified the possible combination in such models of industrialization involving small enterprise and innovative capacity, in particular where territory becomes the background for production of specific skills (contextual knowledge) and for mechanisms of social interaction (networks of interpersonal relations) (Garofali, 1991). At the same time, more strategically oriented literature proposed that the search for competitive advantage should be based beyond the confines of the enterprise also on local territory, by means of clustering models (Lorenzoni, 1997).

With the consolidating of the process of globalization, begun in the 1980s, studies on the issue have attributed ever greater importance to the characteristics/peculiarities of the territory in elaborating entrepreneurial visions, delineating a paradigm in which territory itself becomes the organization with its own identity and responsibility for development (Golinelli C.M., 2002). Meanwhile, the perspective of territory as "accumulator" implies distinctive competitive advantages based on factors which are knowledge-related (widespread entrepreneurial resources, human capital and contextual know-how), relationship-related (relational capital consolidated over time), culture-related (propensity for entrepreneurship, based on a deep rooted local culture) (Garofali, 1999; Becattini, 2000; Viesti, 2000; Belletti et al., 2009).

The complexity of territorial systems has been characterized by constant exposition to crises both of a financial, economic, social and environmental nature, in particular since the new Millennium, by virtue of global integrations. In this perspective, emerges the necessity of a new planning capacity for safeguarding places not only from an environmental but also cultural point of view in order to transform them into drivers to overcome from a sustainable perspective the current context of crisis (Maizza, 2013). In short, conditions should be created to favor co-evolutionary processes involving enterprise, institutions and local communities (Valdani, Ancarani, 2000; Golinelli, 2011).

As concerns enterprise, consequently, territory is interpreted as having an ever more active role, evolving from a mere location of geographical choice to a positive element capable of contributing to its own development. This means entrepreneurial and managerial capacity for grasping further competitiveness by preserving, incorporating and enhancing in core processes the specifics of a place, consequently being distinct from other businesses located in quite different contexts.

Thus, the culture of a territory is elected in support of the specifics of that place. Furthermore, applied to enterprise and in line with sociological studies, "glocalization" highlights the role of local communities in respecting the territory and particularly its traditions and cultures (Bauman, 2005).

A "systemic" vision of the territory consequently appears to be fundamental in that it is made up of a series of interacting elements that contribute to defining and developing over time a territory's distinctive characteristics. In this perspective, territory cannot be defined merely as an extension of space or in terms of natural landscape but rather as an expression of "territoriality" (Raffestin 1981; 2007), the product of interpersonal relations capable of the sedimentary embedding of cognitive, organizational and relational resources of a contextual kind (Rullani, 2002, Baccarani, Golinelli, 2011). From this perspective the territory thus becomes a catalyzer of resources.

Accordingly, it emerges clearly that the territory is configured as a "highly complex system" (Golinelli C.M. 2002, Barile, 2011), underlining the importance of anthropological activity and the constant interaction between man with his environment, as a result of synergic co-evolutionary processes involving human settlements and environments. Therefore, the action of the systemic components present in a territory (individuals, groups, organizations, institutions) contributes, under certain conditions, to enriching over time the structural equipment of a territory, i.e. "territorial capital" (Camagni, 2009).

Thus, even from an economic perspective, the evolving of a territorial area cannot be circumscribed to an analysis of the development process of a productive sector or a local cluster of enterprises but has to be considered from a far wider perspective, that also involves the social and cultural sphere of territorial communities, i.e. the capacity for stakeholders of a specific area to self-determine a concrete sustainable valorization. In this kind of logic, the vision of the enterprise-territory relation can be framed in multi-prospective terms in which economic, social and

environmental dynamics are interwoven together with immaterial resources such as system of civic and social values, skills in the productive fabric, reputation, solidarity, quality of human resources, and relational fabric.

However, such considerations find difficult application from a practical point of view even in the case of territories connoted by “positive” characteristics, consequently the situation becomes much more complex when territories are connoted by “negative” characteristics requiring in other words, not only a dynamic and fruitful enhancing process, but also prior a correct and pragmatic recovery action. In this respect the focus of our paper is on the analysis of disadvantaged territories, when distinguished by the density of organized crime which at a certain stage of a territory’s history has upset the harmonious co-evolutionary balance between the territory itself and its actors.

A context of embedded organized crime defying the most basic rules and regulations governing society and the market clearly impacts negatively in terms of productive investments by causing negative and ruinous effects on the economic activities (modifying the framework of opportunities offered by local contexts) and favoring at the same time, a climate of mistrust and frustration both in individuals as well as in the community itself. In such cases a distinct sensation of reduced value, corrosion and the de-qualifying of territory capital is strongly perceived. Such capital needs to be retrieved above all from a socio-cultural perspective more than economic, as in the case of when enterprises are in difficulty and an appeal is launched for an increase in equity capital (in this case, on the part of members of the company in the strictest sense and not of society at large) together with the courageous search for new and lasting balance.

3. Research design and methodology

The study of territory capital as a fundamental structural equipment for the healthy development of a territory from a multi-dimensional (environmental, social, cultural, economic, etc.) perspective is characterized inevitably by a multidisciplinary approach. Studies deriving from various disciplines (economics, geography, sociology, architecture, etc.), contribute to such analysis and highlight the issues and opportunities deriving from resorting to theories and applications of differing conceptual matrices.

Besides its multidisciplinary nature, a research on territory capital needs a contextual basis, certainly considering territory as a specific geographical area but also considering the particular conditions of the territory, if reasonably replicable elsewhere, or other dimensions, like for example the actors of the territory under investigation. The latter in effect constitutes our object of analysis given that as we intend to examine territories disadvantaged by virtue of the dense presence of organized crime, when interested by contributions of recovery/revitalization on the part of “healthy” economic actors as is evidenced in the case study “Libera Terra”. This is even more applicable to the wine business sector, given the strong bond existing between wine and territory (here the concept of “terroir” is extremely appropriate). Thus, we may rightly use a “unique” or “extreme” case (Eisenhardt, 1989; Pettigrew 1990). Extreme cases facilitate theory-building because, by being unusual, they can illuminate both the unusual and the typical (Patton 2002). In other words, in extreme cases, the dynamics under examination tend to be more visible than they otherwise would be in other contexts.

To this end, our research followed a qualitative approach and used the case study methodology (Yin, 1994, 2003; Fayolle, 2004). The fieldwork approach, as suggested in the literature (Adams, 2002) has the dual aim of “grasping in detail the main characteristics of phenomena being studied” and the understanding of the dynamics of a given process (Ryan et al., 2002). The building of a case study represents a “research strategy that focuses on understanding the dynamics that characterize specific contexts” (Eisenhardt, 1989, p. 532). Case studies address the research questions with an emphasis on qualitative approaches and forms of ongoing research (action research) and enable the description, explication and comprehension of business scenarios from the perspective of their dynamics and evolutions.

Specifically, it is considered that the present study could contribute to responding to the following research questions:

RQ1: «Which particular dynamics characterize the relation between an enterprise (especially if “virtuous”) and a disadvantaged territory?»

RQ2: «Which actions can be put in place by enterprise for the potential recovery and subsequent revitalization of a disadvantaged territory?»

RQ3: «Would it be feasible to surmise that “ethical capital” deriving from such actions could be transferred by a virtuous enterprise to the territory especially if reference is to disadvantaged territory?»

In methodological terms, we shall attempt to respond to RQ1 and RQ2 by means of a “grounded” analysis of the selected case study whereby through the use of primary (above all) and secondary data the storytelling of “Libera Terra” will be presented. As concerns RQ3, we shall attempt to respond to this research question by empirically testing a theoretical framework we have devised relative to “territorial social responsibility” in which the concept of “ethical capital” can emerge specifically. In the case of secondary data, mainly electronic sources have been consulted (via the internet), while in the case of the primary data in-depth interviews via telephone and e-mail have been conducted.

4. Revisiting the concept of territorial capital and proposing a theoretical framework for “ethical capital” in “territorial social responsibility”

The co-evolving enterprise and territory process, being a complex and multi-prospective phenomenon, has to be grounded within the context of a systems based approach in which the anthropological and economic dimensions are strictly linked. The basic underlying concept envisages roles and needs of more simple systems, then arriving gradually at the analysis of more complex systems in line with the principle of systemic recursiveness (Beer, 1991). Furthermore, by means of the systemic approach, the essence of phenomena can be grasped. This means going beyond a prevalently objective and reductionist view towards a holistic outlook capable of interpreting the behavioral dynamics of any systemic entity.

Hence, the structural equipment which in any given moment qualifies a territory are none other than the result of an accumulating/decreasing process deriving from the action of systemic components present in the territory itself. The systemic qualification emerges from the perspective of a territorial approach addressed to economic development whereby processes of collective learning are highlighted. In fact, as Camagni (2009) underlines, the constitution of territorial capital involves the following components:

- natural and cultural capital;
- settlement capital;
- cognitive capital;
- social and relational capital.

As concerns territory competitiveness, this can be summed up as the harmonious combination of the above elements with a primary role attributed to the “capacity for enhancement” both at private or public sector scale and deriving from the convergence towards a common vision (Golinelli, 2012) thus contributing to system viability.

In the public sector case, reference is to processes of governance, oriented towards cooperation and relationship-ability: the organ of territorial government, in contextualizing its action, should take on the role of facilitator in terms of cooperative relations and ties among the economic actors; in the private sector case, reference is to the sense of belonging, i.e. loyalty towards the territory and expression of the degree of cohesion in cultural and value terms characterizing the governing body of any entrepreneurial organization. Central to government action is therefore the search for consonance, i.e. the capacity underpinned by convergence and sharing (Golinelli, 2000; 2005; Barile, 2009) for satisfying the expectations of interacting subjects/entities.

Such processes of interaction and cooperation among local actors, enrich the relational infrastructure of the territory and underpin the evolving in a positive sense for the territory of the causal links integrating creativity, knowledge and innovation (Cafferata, 2011). In this logic, it is to highlight the significant contributions, in the literature of business studies, which interpret the territorial systems as cognitive systems that, in the economy of intangibles and knowledge, are a key resource, especially for smaller firms (Rullani, 2004). The emerging of a local territorial system therefore, irrespective of its geographical qualification, defines the milieu in which the various actors perceive themselves as similar and consider themselves mutually responsible for the same (Impronta Etica, 2009; Schillaci, Gatti, 2011).

In a recursive logics, taking into consideration the territorial dimension in business development implies the need for the enterprise to take responsibility for its actions by incorporating the social and civic dimensions, and not only the economic one. In this respect a culture oriented towards the voluntary integration of social and environmental objectives in corporate strategies and processes (Perrini, Tencati 2008a), shared and embraced by all the members of the organization, facilitates the coordinating of activities and relations both in the enterprise and with respect to the actors of the territory, representing the vital sap of loyal and transparent attitudes encouraging virtuous and synergistic actions both for the enterprise and for the territory. From such logics, a vision of Corporate Social Responsibility based on strong relational and cooperative values, emerges (Perrini, Tencati, 2008b) wherein the capacity of entrepreneurship to generate positive changes in the territorial community by means of corporate initiatives is exalted while at the same time, responding to social needs (Mair, Marti, 2004).

It is clear, in fact, that a comprehensive view of corporate social responsibility can't be represented solely by an internal perspective, such as appears to emerge in the model of the Triple Bottom Line (Elkington, 1997), based on the acronym of the 3Ps (profit, people, planet). In this sense, an advancement of studies in this issue, towards a more external perspective, derives from the pyramid model of Carroll (1991), that is, in a bottom up path, an expansion of corporate responsibility, from the economic one to the legal one, from ethics to philanthropy. Decision-making processes aimed at searching virtuous equilibrium solutions, within the above responsibilities, would expand the space of consonance and allow also to reduce the risk of failure about the economic purpose (Sciarelli, 2005). In an expanded vision of corporate social responsibility the correct behavior of the enterprise can originate only from ethics, by sharing the thought of that part of the doctrine intended to qualify ethics as a model of conduct aiming at determining values and criteria for guiding the conduct towards the "good", focusing on the principles of honesty, justice, respect for the individual (Ciappei, 2006; Sciarelli, 2007).

Civic impulse consequently, is an integral part of corporate social responsibility, and find its right place in the spectrum of meanings based not only on altruism or solidarity, but above all on creativity, i.e. farsighted initiatives, blending with economic principles and objectives, cooperative dynamics, and "public happiness" (Bruni, 2004, 2006; Gui Sudgen, 2005). In other words, it is a widespread corporate responsibility whereby behaviors are addressed to consolidating sentiments of citizenship and rectitude (Keeley, 1998). From the perspective of entrepreneurship as citizenship, the role of firms stands out, being able to create shared value, qualifying themselves as catalyzers of social wellbeing and at the same time, improving their competitive status (Porter, Kramer, 2006; Husted and Allen, 2009). In a kind of broad based social contract (Donaldson, Dunfee, 1999) the obligations of an enterprise part of a territorial community, extend far beyond the traditional corporate boundaries in line with a relational system perspective (Pellicano, Ciasullo, 2010) centered upon a complex, organized, open and dynamic flow of relations of trust. In this respect, unwritten rules emerging from widespread and ongoing relations among the enterprise and its stakeholders, represent the basis of a process of sharing and joint responsibility in the context of value creation processes.

In terms of competitiveness, enterprise needs to define strategic action that would be synergistic with the local system, favoring interactions characterized by co-participation to strategic and operational processes by means of a shared, coordinated, and synergistic use of respective resources. Such considerations apply in particular when the territory impacts to a great extent on the competitiveness of the enterprise and where it represents an essential productive factor as in the case of the agri-food sector (the wine business sector in particular) but above all when the territory is characterized by disadvantages of an "ethical" nature by virtue, as in the case study analyzed, of the dense presence of perpetrators of organized crime.

Precisely in so characterized territories, in fact, the need for a collective intentionality emerges, that would be capable of implementing instances of change through dynamics of cooperation and reciprocity, properly channeled in different initiatives and having as their relevant aim to contribute to the accumulation of ethical capital. In this logic, each individual responsibility must be able to integrate itself in a common collective responsibility, that may be understood at the same time as foundation and tension of ethics. On the basis of the above considerations and an empirical research the purpose of which being to determine the extent of the contribution of corporate organizations towards the growth of territorial capital (Impronta Etica, 2012), our research attempts to conceptualize a theoretical framework in order to delineate the "territorial social responsibility".

With regard to the model, the four main concepts of “capital” proposed in our research concern the social, eco-systemic and cognitive dimensions. Leaving aside the dimension of “settlement-infrastructural capital”¹ which we consider contributes in a non-dynamic (i.e. static) manner to the generating of territorial social responsibility, beyond the other three, we propose a further dimension that can be considered fundamental to developing effective territorial social responsibility, i.e. a “diffuse (ethical) tension”, highlighting the unquestionable importance of effective “ethical capital”. In particular, the fourth dimension impacts in two ways, because it can be considered both the cause and the effect (as outlined above) of territorial social responsibility.

Finally, the model conceptualizes the drivers associated with each dimension thus achieving research advancements compared to the models that have inspired and underpinned our research: Impronta Etica (2012) and Camagni (2009). Therefore, the dimensions and drivers proposed in the theoretical model of the “territorial social responsibility” can be articulated as follows (see Fig. 1):

- a) “Corporate Social Responsibility” (*social capital*): entrepreneurship, relationship-ability, sustainability (recovering/adapting the traditional model of the “3Ps”: profit, people, planet);
- b) “Systemic Qualification” (*eco-systemic capital*): viability, governance organ, consonance (inspired by the viable systemic approach by Golinelli);
- c) “Synergic Circularity” (*cognitive capital*): “economicity”, quality and innovation (thinking analytically about the concept of competitiveness);
- d) “Diffuse Ethical Tension” (*ethical capital*): legality, integrity, solidarity (recovering /adapting Carroll’s pyramid on corporate social responsibility from the second step: legal, ethical and philanthropic).

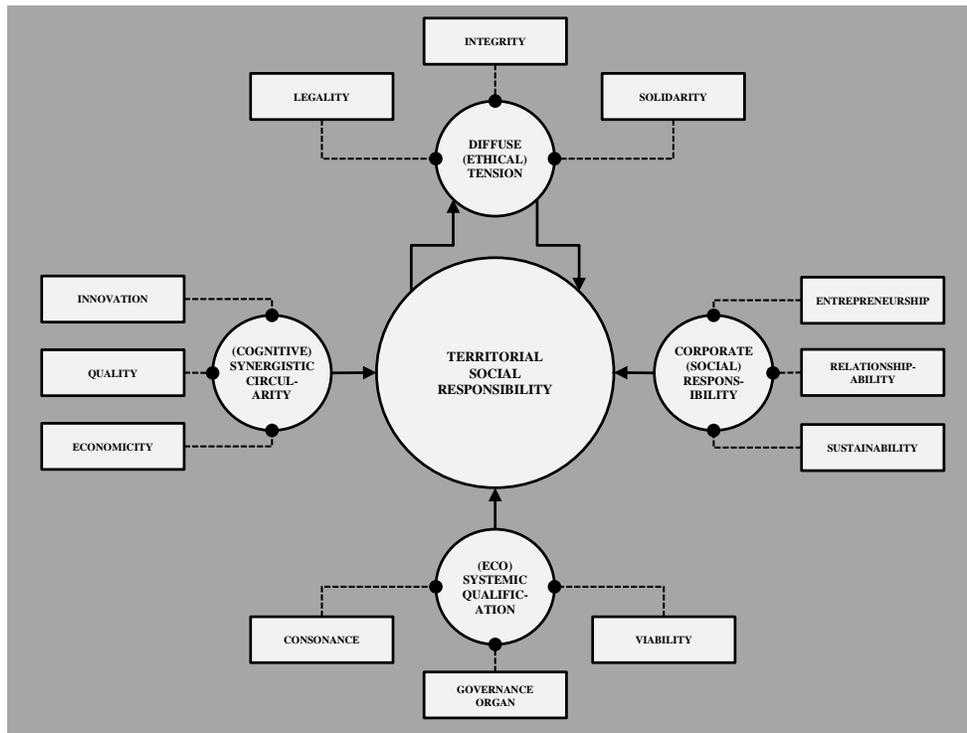


FIG. 1 – THE THEORETICAL FRAMEWORK OF THE TERRITORIAL SOCIAL RESPONSIBILITY.

Precisely the dimensions (four) and their relative drivers (twelve) constitute the foundations/pillars of the theoretical framework that we propose as the main contribution of our research in order to qualify the territorial social

responsibility which will subsequently be empirically tested, by a fieldwork confirmation, in the storytelling of the case study “Liberata Terra”.

5. The case study “Liberata Terra” with the experiences of “Centopassi” (Sicily) and “Liberata Terra Puglia” (Apulia)²

«“Liberata. Associations, names and numbers against mafias” was born on March 25, 1995 with the intention of stimulating the civil society in the fight against organized crime and promoting legality and justice. “Liberata” is currently a co-ordination of over 1600 associations, groups, schools, grassroots groups, territorially committed to build political-cultural and organizational synergies capable of spreading the culture of legality. The law on the social use of property confiscated from the mafia, the education for democratic legality, the commitment against corruption, the anti-mafia training camps, the projects on work and development, the anti-usury activities are just some of its specific commitments. “Liberata” is recognized as an association for social promotion by the Ministry of Social Solidarity. In 2008 it was included by Eurispes among the Italian excellences. In 2012 it was included by The Global Journal in the list of the hundred best NGOs in the world: it is the only Italian organization of “community empowerment” whose name appears in this list, the first dedicated to the universe of non-profit» (from www.liberaterra.it, last visited on June 15, 2014).

Nine social cooperatives belong to “Liberata Terra” on the Italian territory (for the moment, only in the South of Italy). There are five in Sicily, two in Calabria, one in Apulia and one in Campania, while a tenth will start shortly again in Sicily (in the province of Trapani).

Of these social cooperatives, four, of which three in Sicily and one in Apulia, are engaged in the cultivation of the grape and the production of the wine (this latter activity does not apply to Hiso Telaray, which commit the transformation of the grapes to contractors selected by the Consortium “Liberata Terra Mediterraneo”, even though the winemakers of the cooperative coordinate all the stages of the winemaking process). The wine social cooperatives are grouped into two large “souls”, “Centopassi” in Sicily (www.centopassisicilia.it) and “Hiso Telaray” in Apulia (www.hisotelaray.it).

In particular, “Centopassi” is the wine soul of the Sicilian entities of “Liberata Terra”, involving the Social Cooperative “Placido Rizzotto”, the Social Cooperative “Pio La Torre” and the Social Cooperative “Lavoro e Non Solo”. The cooperatives handle agricultural goods confiscated from organized crime in the area of Palermo, on lands belonging to the “Sviluppo e Legalità” Consortium of Municipalities, and in the provinces of Trapani and Agrigento.

“Hiso Telaray”, instead, is the name of the wine soul of the Social Cooperative “Terre di Puglia”, which handles the goods confiscated from organized crime in Apulia. The cooperative manages vineyards in the province of Brindisi, in the towns of Mesagne, Torchiarello and San Pietro Vernotico.

The social commitment of these initiatives emerges naturally from the very same names. The first is related to the famous “hundred steps” that separated the house of Giuseppe Impastato (a political activist victim of the mafia) from that one of Gaetano Badalamenti (condemned as instigator of the murder); the second is related to the young Albanian man (who was killed at the age of only 22) who had dared to challenge the illegal hiring linked to organized crime (for which he was punished as an example/warning).

In business terms, more specifically, “Centopassi” and “Hiso Telaray” employ in various ways several workers, of whom at least the 30% are disadvantaged, in compliance with the Italian legislation on social cooperatives (in general, “Liberata Terra” develops a system of about 140 workers). “Centopassi” produces different types of wines, all in biological processing, from about 90 hectares of vineyards, for an average distribution of 500 thousand bottles of wine per year, sold in Italy and abroad. As regards “Hiso Telaray”, instead, the bottles produced on average are about 120 thousand per year, from about 30 hectares of vineyards.

In the case of the wine sector, the ethical approach to the territory is definitely identical to that one that “Liberata Terra” take/pursue also for the other agricultural productions (on which we will reason extensively below), but rather there has been a turnaround as to the type of production. Before the management of vineyards by “Liberata Terra”, in fact, the cultivators aimed to maximize the amount of grapes, to be able to access funding for crisis distillation, apart from any consideration of the quality of the grapes: nowadays, instead, the relationship with the vineyards is completely changed, because the focus is mainly on indigenous grapes (Grillo, Catarratto, Nero d’Avola and Perricone in Sicily; Negroamaro

in Apulia), using exclusively biological crops, aiming at the maximum quality of the product, up to real *crus*, with numerous awards at national and international level.

In terms of advantages/disadvantages of the territory of origin, neglecting agronomic, oenological and commercial references to the true “terroir” (Ciasullo, Festa, 2012), one can generally distinguish between what happened in Italy and what happened abroad (moreover, it should be noted that the engagement in the wine sector is relatively recent, dating back to 2006). On foreign markets, in fact, the products have succeeded because they have a good quality/price ratio; after this judgment, in case, also the “social” soul of the enterprise may have been recognized.

In Italy, instead, undoubtedly there has been a greater recognition in this sense, both in terms of notoriety/approval, and in terms of practical support on the part of the cooperative world (for distribution and sale), emphasizing the relational capital (Cardinali, 2009): however, there may have been some disadvantages, that have been connected not so much to the land of origin, as to the prejudice on the social cooperatives in general, that in case at the beginning cannot be considered capable of handling quality productions. These prejudices have been defeated “simply” with the daily work involved in producing quality wines, which, as we said, have now reached a level of notoriety, popularity and reputation of unquestionable value, in Italy and abroad.

The case study has been treated in a merely exploratory perspective, in order to reason about the relationship between “Libera Terra” and the reference territory, in view of the transfer of “ethical capital”, especially in the case of the wine sector (“Centopassi” and “Hiso Telaray”). This contextualization has been considered interesting because in the case of grape cultivating and wine making the link with the territory of the enterprise is of course very intense, up to the same concept of “terroir”.

Naturally, the reflections that follow are valid in general for all the social cooperatives belonging to “Libera Terra” (which handle various agricultural products), and then more specifically affect also the social cooperatives engaged in the wine sector, on which previously we developed a more contextualized analysis. The case study is illustrated below by the storytelling approach, adopting the perspective of the territorial social responsibility and therefore breaking down the story of “Libera Terra” in the four dimensions that constitute the theoretical model previously proposed.

The dimension of the corporate social responsibility (“social capital”)

The economic activities carried out by the social cooperatives belonging to “Libera Terra” were inspired by a relevant, if not predominant, social purpose, in which the cult of the legality is a fundamental value of the entrepreneurial vision. It is obvious, in any case, the necessity/opportunity of a good governance and management of the firm, combining «... the characters of economic efficiency and innovation of the enterprise with the values of mutuality and solidarity that are typical of the third sector, creating a participatory and democratic enterprise, formally private, but oriented to objectives of general order», also because precisely «... in the evolution of the third sector social cooperatives represent the entrepreneurial dimension of the non-profit group»³.

Social cooperatives that are members of “Libera Terra” are based on a double “social” inspiration. Firstly, they are oriented (in compliance with the related law) to the inclusion of disadvantaged workers, but at the same time, they are oriented (in compliance with their own mission) to spread on the territory examples of civic engagement, capable of inspiring virtuous behaviors (or more precisely just “civil”) in the communities that inhabit the same territory and, thanks to the power of example, even in the communities that inhabit different territories, but similar (Putnam, 1993).

It remains essential, of course, the proper functioning of the enterprise as such, that is from an economic point of view (considering entrepreneurship as an attitude, capability and ability to imagine, design and develop economically sustainable initiatives), becoming the economic purpose also a vehicle to better promote these social and civil objectives. In addition, always in economic terms, it is important to remember that, in the view of the territory promoted by “Libera Terra”, the tension to the enhancement of the public good is a priority, since the land confiscated from organized crime remains in the property of the State and social cooperatives are only entrusted under concession. This enhancement, in particular, aims at creating a virtuous circle of economically self-sustainable enterprises, involving of course also the supply chain and thereby generating employment for the territory, directly or indirectly.

Beyond the promotion of the public good in an economic sense, there is also a valorization in an environmental sense, which results in a real philosophy that starts from the consideration of land as a source of life (“Mother Earth”), focusing the efforts of “Libera Terra” on agricultural work. The cult of the environment is of fundamental importance to

the cooperative project, because the environmental responsibility, in territories with a substantial criminal presence, is one of the most critical viaticum to get to a widespread sense of legality: so, the message that should emanate from this commitment is that it is possible to make a product that is “good, righteous, and clean”.

Moreover, in an even broader vision, that message gets translated into a principle of convenience of the legality, considering it as a not only social, but also economic remuneration. Indeed, the land confiscated and now managed by the social cooperatives were cultivated even previously (rather, during the transition from the requisition to the concession of course they remained uncultivated) and even earlier, as a consequence, some economic value was generated, but it was wealth (even and especially in terms of work) that was not distributed fairly, obviously benefiting the employer (organized crime). With the economic initiative of the social cooperatives belonging to “Libera Terra”, however, it is shown that the legality is not only right, but it makes sense as well, because it allows a more equitable redistribution of wealth in the territory.

In social terms, finally, the cooperatives of “Libera Terra” of course require the use of (at least) the 30% of disadvantaged workers, as required by law (381/91). In addition, nearly all workers reside in the municipalities to which the lands under management compete geographically, and this gives the initiative a high social impact, shortening the chain of transmission of the legality towards the community of the territory.

Moreover, the choice of the members of the cooperative is by public announcement, involving public and private institutions, in order to identify individuals who for personal skills (ethics) and professional ones (know-how) are in harmony with the spirit of the enterprise. This combination is crucial: “Libera Terra”, in fact, puts as a foundation of its own initiatives certainly legality (and then ethics), but also a reliable entrepreneurial project, that must be supported by adequate professionalism, because the hypothetical economic failure of the project would ultimately affect negatively also the social impact of the overall initiative.

The dimension of the systemic qualification (“eco-systemic capital”)

The involvement of public and private actors assume in the case of “Libera Terra” a particular importance. In fact, it must be remembered that the law 109/96 provides that the goods seized by the State to organized crime are assigned to provinces, municipalities and consortia of municipalities, which subsequently can assign them under concession to social cooperatives.

In the case of those ones belonging to “Libera Terra”, the members of which, as we said, are selected by a public announcement, for these lands, just in the public-private partnership (Province, Prefecture, Municipality, Consortium of Municipalities, Italia Lavoro, Libera Terra, etc.), a detailed territorial study has been developed, putting at the center of the territorial strategy a precise pin, namely the enterprise creation, in order to constitute in the territory a real “network” of economic, social and civil values (thus arriving at a contextual and multi-subjective governance organ of the territory). The governance of the territory so far represented regards similarly also the relations between “Libera Terra” and the associated enterprises, whose levels of government, in fact, are quite distinct, even though they obviously share a total harmony of principles.

In this system of values, as we said earlier, the most important one is undoubtedly legality, that we have already declined in an institutional component (respect of the law) and in an economic one (“legality is economically convenient”). Most of all, therefore, the principle emerges that an alternative of legality is also (especially) an economic alternative, i.e. an entrepreneurial path to the survival of the enterprise, of the workers and then of the territory in the broadest sense.

At the level of the territorial system, finally, the social cooperatives of “Libera Terra” try to keep the vocation of the single soil for the cultivation practiced there traditionally, reaching up to biological productions exclusively in all the makings of the cooperatives, tending to the highest possible quality of the production of that specific land. The tension to the vocation of the territory is very intense, both in *hard* terms (i.e., the propensity of that specific soil to that specific cultivation, up to the concept of “terroir” in the case of wine) and in *soft* terms (i.e., the professional and traditional skills existing in that specific community that inhabits that specific soil), constantly pursuing a systemic consonance with the territory.

The dimension of the synergistic circularity (“cognitive capital”)

From the point of view of production and trade, it is possible to find in “Libera Terra” a particular organization: the social cooperatives, in fact, focus exclusively on what they do best, which is the biological cultivation of the assigned lands to generate the highest possible quality. Transformation and sale, however, are carried out by the Consortium “Libera Terra Mediterraneo”, which therefore can exploit economies of scale and experience, making use of technical and allocative efficiency, redistributing even more fairly the wealth produced on the whole.

Besides, the Consortium “Libera Terra Mediterraneo” also buys from other transferors and not only from by the social cooperatives of “Libera Terra”. Anyway, in order for any company to be a supplier of the Consortium, it must undertake to comply with a very rigid discipline, both for technical production both for ethical behavior.

It is clear that the Consortium does not constitute a specific resource of a specific territory (it is situated in San Giuseppe Jato, in the province of Palermo), but is instead a kind of meta-territorial actor, because in fact it is the main outlet of the agricultural productions of the various territories. This relative “certainty” allows social cooperatives to engage in innovation and quality (with biological crops) of the single agricultural productions, taking advantage of the upstream “economicity” that the Consortium will be able to develop.

The dimension of the diffuse ethical tension (“ethical capital”)

It is natural that the humus of legality is in any case present in all territories, including those ones with a considerable criminal presence, because it is understandable that the vast majority of residents in a community has a perfectly clear sense, in terms of legality, of what is right and what is wrong. Anyway, contextual circumstances (living of the economic retardation, perception of the institutional slowness, etc.) can equally understandably slow down or even block the application of that inner feeling, unless one arrives, as the social cooperatives of “Libera Terra” do, to show that socially, but above all economically, a “legal” initiative it is possible, reliable and sustainable.

Moreover, the territories on which the activities of “Libera Terra” insist have a dual core, because the economic and social redemption which undoubtedly is brought to light, certainly supported, as mentioned above, by a background humus, in any case it is combined with a local presence, at least in historical terms, of a sub-culture with values, principles and rules of criminal nature. In the relationship that these social cooperatives have with the territory, therefore, we must always consider this dual identity, not enhancing, but giving due weight to results that elsewhere may appear “minimum”.

Furthermore, it is interesting to note that, for the operators of “Libera Terra”, the work of the cooperatives is a “normal” craft, i.e. in which they deal with opportunities and problems in the everyday entrepreneurship, without outbursts of “heroism”, as erroneously it could be perceived outside. Of course, there are considerable difficulties in transferring the message of the cooperative project: indeed, the subjects that had been confiscated lands are fearsome, more than for any threats or actual retaliations (also occurring), in an attempt to demolish “culturally” the effort of starting a legally clean and economically viable initiative, because in those local communities would be emerged the evidence of a concrete alternative to the criminal management in the broadest sense of those same lands.

It is important to note that members and workers of “Libera Terra” are also engaged in respecting a veritable code of personal behavior, which requires not only to produce legality, but also integrity (avoiding completely, for example, even only personal relationships that can be questionable). For those who work with the cooperative/project, therefore, the concept of “hero” must be deconstructed and brought back to a level of normality: doing their job, doing their duty, respecting the law, we can realize a “normality” that at the same time becomes solidarity, as demonstrated for example by the more equitable redistribution of the wealth produced in the territory (which was mentioned earlier).

Also because of these reasons, after the commitment of the social cooperatives of “Libera Terra” it is possible to note in the territory a larger support to the initiative on the part of citizens and operators (also thanks their economic involvement, direct and indirect), a greater vitality in the broadest sense of the community (including numerous projects in collaboration with various municipalities) and a more evident culture of legality (we may think of the fact that few years ago it was unthinkable, as instead happens now, that one would “normally” wear the t-shirts of “Centopassi”), extending continuously the civil front of the community of reference.

6. Results and implications

The study of the social cooperatives belonging to “Libera Terra” has allowed, by storytelling, an in-depth analysis of entrepreneurial behaviors, in terms of dynamics and actions, that can be put in place by virtuous enterprises operating in disadvantaged areas, thus responding to RQ1 and RQ2, obviously in an exploratory rather than prescriptive manner. For example, in the case study we have verified the undoubted importance, in the dissemination of ethical capital, of *dynamics* such as the enhancement of the vocation of the territory (both in terms of soil and in terms of skills) helping to give it a clear ethical identity (Totaro, 2005) and of *actions* such as the respect not only of the law (legality), but also of specific duties (integrity).

In addition, we have tried to determine whether and by what margins of consistency/inconsistency the theoretical model of “territorial social responsibility”, previously proposed, could find its application precisely in the specific case of “Libera Terra” (responding positively to RQ3) and still more particularly in the case of the social cooperatives of “Libera Terra” operating in the wine sector. It should be remembered, however, that in this sector very substantial differences have not emerged with respect to other agricultural products, except for the fact that, of course, in the case of wine as a product inevitably the concept of “terroir” emerges strongly.

Therefore, below we propose the application of the theoretical model of the territorial social responsibility (as a system of the contributions generated by the efforts of the entrepreneurial actors in the territory) to the case study “Libera Terra” (see Fig. 2). In methodological terms, of course, the exploratory intent of the study has to be emphasized: in fact, it has been not proposed to derive from the observation of a case study a theoretical model valid in general (induction that would be unreliable with a single case), but, instead, after developing the theoretical model, it has been proposed to verify its consistency with respect to a specific case study, chosen according to specific motivations, in order to bring out generic possibilities and impossibilities of application.

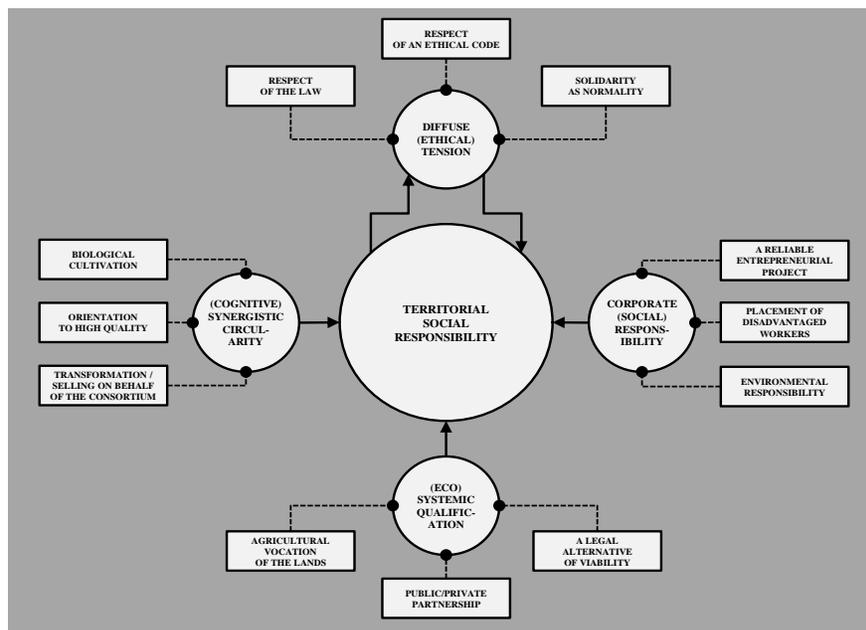


FIG. 2 – THE APPLICATION OF THE THEORETICAL MODEL OF TERRITORIAL SOCIAL RESPONSIBILITY TO “LIBERA TERRA”.

In terms of scientific implications, the current exploratory study, of course, is open to further investigations, requesting to try to determine the evaluation parameters of the single drivers of each dimension, up to a kind of synthetic index for the evaluation of the territorial social responsibility. Furthermore, surveys with quantitative methods will be necessary to verify the possible generalizations of the model.

In terms of managerial implications, the conviction of the ethical purpose (and not only economic and social) of the entrepreneurial activity is strengthened, being paradoxically more evident precisely when the economic responsibility, specifically for disadvantaged areas and, more generally, in times of crisis, seems to waver. Besides, business ethics acquires a collective value (because it flows into the territorial social responsibility), but also individual (because it is embodied in a real “ethical capital”), generating a virtuous circle even at an economic level (we may think of the demonstration, offered by “Libera Terra”, that legality is also convenient).

Other possible implications, of course, affect the decisions of territory governance that have to be developed by the public actors involved as policy makers, hopefully also in cooperation with private actors. The ethics of the actors generally operating in the territory, especially when entrepreneurial actors, that (as it has been verified) can transfer ethical capital to the territory, should in fact be an indispensable factor for the planning and development of the territory, up to becoming a real “collective consciousness” (Schillaci, Gatti, 2011), most of all for those areas hampered by specific handicaps, as is certainly the case, for example, of the areas with a considerable criminal presence.

7. Conclusions

It is now accepted, for business studies, that the territory is a very important variable, although not decisive, for the economic development of organizations, and consequently of individuals and societies, almost taking for granted that a particularly strong territorial capital constitutes at least a starting advantage for the enterprise (we may think, furthermore, to the *Inquiry into the Nature and Causes of the Wealth of Nations* by Adam Smith or the much more recent *Competitive Advantage of Nations* by Michael Porter). It seems less obvious, however, the role that economic organizations and enterprises in particular can play in helping the possible recovery/revitalization of disadvantaged areas, in an relationship characterized by interactive and fruitful exchanges not only in purely economic terms, but also social and cultural.

In this paper we have investigated some dynamics of the behavior that virtuous businesses may have towards the territory, transferring to the surrounding entrepreneurial and social fabric some benefits of exemplarity or at least solidarity. In this sense, specific object of investigation has been “Libera Terra”, intended as a subject that is coordinator (in a certain sense even meta-organizer) of different realities, even entrepreneurial, that are dynamic in promoting on the territory, with commitment and success, activities with a relevant ethical interest, as well as first of all economic.

In the study, moreover, also by analyzing the case study “Libera Terra”, it has been possible to propose a theoretical model for the creation and dissemination of “territorial social responsibility” (especially thanks to the “ethical capital”), of which we have presented a theoretical analysis and proposed an articulation in drivers. In this way, in fact, it is possible to consider the ethical capital (linearly) as a “cause” of the territorial social responsibility (benefiting the territory also thanks to the commitment of virtuous businesses) and (synergistically) as an “effect” of the territorial social responsibility (benefiting the enterprises operating in the territory).

References

- [1] Adams C. (2002). Internal organizational factors influencing corporate social and ethical reporting: beyond current theorizing, *Accounting, Auditing and Accountability Journal*, XV(2), 223-250.
- [2] Baccarani C., Golinelli G.M. (2011). Per una rivisitazione delle relazioni tra impresa e territorio, *Sinergie*, 84, VII-XIII.
- [3] Bagnasco A. (1977). *Tre Italie*. Bologna: Il Mulino.
- [4] Barile S. (2009). *Management sistemico vitale*. Turin: Giappichelli.
- [5] Barile S. (2011). L'approccio sistemico vitale per lo sviluppo del territorio. *Sinergie*, 84, 47-87.
- [6] Bauman Z. (2005). *Globalizzazione e glocalizzazione*. Rome: Armando.
- [7] Becattini G. (1979). Dal settore industriale al distretto industriale. Alcune considerazioni sull'unità di indagine dell'economia industriale, *Rivista di Economia e Politica Industriale*, 5 (1), 7-21.
- [8] Becattini G. (1987). *Mercato e forze locali: il distretto industriale*. Bologna: Il Mulino.
- [9] Becattini G. (1989). *Modelli locali di sviluppo*. Bologna: Il Mulino.
- [10] Becattini G. (2000). *Dal distretto industriale allo sviluppo locale. Svolgimento e difesa di un'idea*. Turin: Bollati Boringhieri.
- [11] Beer S. (1991). *Diagnosi e progettazione organizzative*. Turin: Isedi.
- [12] Belletti G., Cavaliere V.F., Moliterni R. (eds.). (2009), *Le piccole imprese nei settori maturi tra declino strutturale e opportunità di crescita. Evidenze empiriche dai sistemi locali della provincia di Pistoia*. Milan: Franco Angeli.
- [13] Bruni L. (2004). *L'economia, la felicità e gli altri. Un'indagine su beni e benessere*. Rome: Città Nuova.
- [14] Bruni L. (2006). *Reciprocità. Dinamiche di cooperazione, economia e società civile*. Milan: Mondadori.
- [15] Cafferata R. (2011). Prefazione. Pilotti L. (eds.), *Creatività, innovazione e territorio. Ecosistemi del valore per la competizione globale*. Bologna: Il Mulino.
- [16] Camagni R. (1991). *Innovation Networks: Spatial Perspectives*. London: Belhaven-Pinter.
- [17] Camagni R. (2009). Per un concetto di capitale territoriale. Borri D., Ferlaino F. (eds.), *Crescita e sviluppo regionale: strumenti, sistemi, azioni*. Milan: Franco Angeli.
- [18] Cardinali S. (2009). Capitale relazionale e business del vino: riflessioni teoriche e nuovi strumenti di gestione della forza di vendita. *Agriregionieuropa*, 6(22), 73-75.
- [19] Carroll A.B. (1991), The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders. *Business Horizons*, 34(4), 39-48.
- [20] Ciappei C. (2006). *Il realismo strategico nel governo d'impresa*. Florence: University Press.
- [21] Ciasullo M.V., Festa G. (2012). La reputazione del territorio nella comunicazione del vino. Referred Electronic Conference Proceedings. XXIV Sinergie Annual Conference. University of Lecce. 563-568.
- [22] De Chiara A. (2012). La competitività responsabile nelle PMI: strategia vincente nei territori nemici. *Rivista Piccola Impresa/Small Business*, 1, 41-64.
- [23] Eisenhardt K.M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532- 550.
- [24] Elkington J. (1997). *Cannibals with Forks. The Triple Bottom Line of 21st Century Business*. Oxford: Capstone Publishing.
- [25] Fayolle A. (2004). À la recherche du Coeur de l'entrepreneuriat: vers une nouvelle vision du domaine. *Revue Internationale P.M.E.*, 17(1), 101-121.
- [26] Fuà G. (1983). Industrializzazione nel Nord Est e nel Centro. Fuà G. & C. Zacchia (eds.). *Industrializzazione senza fratture*. Bologna: Il Mulino, 7-46.
- [27] Garofali G. (1991). *Modelli locali di sviluppo*. Milan: Franco Angeli.
- [28] Garofali G. (1999). Sistemi locali e performance dell'impresa minore in Italia. Traù F. (eds.). *La questione dimensionale nell'industria italiana*. Bologna: Il Mulino.
- [29] Golinelli C.M. (2002). *Il territorio sistema vitale. Verso un modello di analisi*. Turin: Giappichelli.

- [30] Golinelli G.M. (2011). *L'approccio sistemico al governo dell'impresa. Verso la scientificazione dell'azione di governo*. Padua: Cedam.
- [31] Golinelli G.M. (a cura di) (2012). *Patrimonio culturale e creazione di valore. Verso nuovi percorsi*. Padua: Cedam.
- [32] Golinelli G.M. (2000). *L'approccio sistemico al governo dell'impresa. La dinamica evolutiva del sistema impresa tra economia e finanza*. Padua: Cedam.
- [33] Golinelli G.M. (2005). *L'approccio sistemico al governo dell'impresa. L'impresa sistema vitale*. Padua: Cedam, 2nd Ed.
- [34] Gui B., Sugden R. (2005). *Economics and Social Interactions. Accounting for Interpersonal Relations*, Cambridge: University Press.
- [35] Impronta Etica (2009). *La responsabilità sociale come opportunità per superare la crisi pensando al futuro*. Bologna: Casma Tipolito.
- [36] Impronta Etica (2012). *Il contributo dell'impresa responsabile nella creazione di valore per il territorio*. Bologna: Casma Tipolito.
- [37] Lorenzoni G. (1997). Le reti interimpresa come forma organizzativa. Lomi A. (eds.). *L'analisi relazionale delle organizzazioni. Riflessioni teoriche ed esperienze empiriche*. Bologna: Il Mulino.
- [38] Maizza A. (2013). Impresa, territorio e competitività: riflessioni e prospettive di ricerca. *Sinergie*, 90, 11-21.
- [39] Marshall A. (1919). *Industry and Trade*. London: MacMillan.
- [40] Patton M.Q. (2002). *Qualitative research & evaluation methods*. Thousand Oaks, CA: Sage Publications, 3rd Ed.
- [41] Pellicano M., Ciasullo M.V. (eds.). (2010). *La visione strategica dell'impresa*. Turin: Giappichelli.
- [42] Perrini F., Tencati A. (2008a). *Corporate social responsibility: un nuovo approccio strategico alla gestione d'impresa*. Milano: Egea.
- [43] Perrini F., Tencati A. (2008b). La responsabilità sociale d'impresa: strategia per l'impresa relazionale e innovazione per la sostenibilità. *Sinergie*, 77, 23-43.
- [44] Pettigrew A. (1990). Longitudinal field research on change: theory and practice, *Organization Science*, 1(3), 267-292.
- [45] Porter M.E. (1998). Clusters and the New Economics in Competition, *Harvard Business Review*, vol. 76 (6), 77-90.
- [46] Putnam R.D. (1993). *Making democracy work: civic tradition in modern Italy*. Princeton: University Press.
- [47] Raffestin C. (1981). *Per una geografia del potere*. Milan: Unicopli.
- [48] Raffestin C. (2007). Il concetto di territorialità. Bertocin M., Pase A. (eds.), *Territorialità. Necessità di regole condivise e nuovi vissuti territoriali*, Milan: Franco Angeli.
- [49] Rullani E. (2002). Sistemi territoriali ed apprendimento localizzato. Biggiero L., Samara A. (eds.), *Apprendimento, identità e marketing del territorio*. Rome: Carocci.
- [50] Rullani E. (2003). Complessità sociale e intelligenza localizzata. Garofoli G. (eds.), *Impresa e territorio*. Bologna: Il Mulino.
- [51] Rullani E. (2004). *Economia della conoscenza. Creatività e valore nel capitalismo delle reti*. Rome: Carocci.
- [52] Ryan B., Scapens R., Yheobald M. (2002). *Research method and methodology in finance and accounting*. London: Thomson, 142-143.
- [53] Schillaci C.E., Gatti C. (2011). E pluribus unum: intenzionalità collettiva e governo dei sistemi territoriali. *Sinergie*, 84, 21-45.
- [54] Sciarelli S. (2005). L'ampliamento della responsabilità sociale dell'impresa. *Sinergie*, 67, 35-43.
- [55] Sciarelli S. (2007). *Etica e responsabilità sociale d'impresa*. Milan: Giuffré.
- [56] Totaro F. (2005). Lavoro e attività sociale nel mutamento di sviluppo. Semplici S. (eds.), *Il mercato giusto e l'etica della società civica*. Milan: Vita e Pensiero.
- [57] Travaglini C. (2009). Cooperativa sociale. Bruni L., Zamagni S. (eds.), *Dizionario di economia civile*. Rome: Città Nuova.
- [58] Valdani E., Ancarani F. (2000). Il marketing territoriale tra interno ed esterno. Valdani E., Ancarani F. (eds.), *Strategie di marketing del territorio*. Milan: Egea, 23-54.

- [59] Viesti G. (2000). *Come nascono i distretti industriali*. Bari: Laterza.
- [60] Yin R.K. (1994). *Case Study Research*. London: Sage Publications, 2nd Ed.
- [61] Yin R.K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage Publications, 2nd Ed.

End Notes

¹ It should be noted that the model already seems to incorporate in the “settlement-infrastructure capital” the productive dimension and in the “eco-systemic-landscape capital” the naturalistic dimension of a territory in line with the model prior to that of Camagni (2009).

² We want to thank Mr Francesco Paolo Citarda, executive in charge for the communication of “Libera Terra”, for the availability and the attention given in the development of the case study.

³ Source: Travaglini C. (2009). *Cooperativa sociale*. Bruni L., Zamagni S. (eds.), *Dizionario di economia civile*. Rome: Città Nuova, pp. 247-248.

Linking CRM and competitiveness in the hotel industry

*Elsa Georgina Gonzalez-Urbe, guribe@cucea.udg.mx**

Jose Sanchez-Gutierrez, jsanchez0202@hotmail.com

Juan Mejia-Trejo, juanmejiatrejo@hotmail.com

University of Guadalajara, Mexico

Linking CRM and competitiveness in the hotel industry

Abstract

In the hotel industry, customer relationship management (CRM) is a strategic factor to attract and increase the number and customer loyalty. (Sigala, 2005). This paper analyzes the relationship between CRM and competitiveness in 4 and 5 star and luxury class hotels in Guadalajara, Mexico. Theoretical concepts relating to the subject of the study were reviewed considering the relationship of management capability and innovation in marketing with CRM (independent variable), and with Competitiveness (dependent variable) financial performance, technology and costs.

Introduction

Hotel industry in Guadalajara, the second city in economic importance in Mexico, has a hotel capacity of over 16,000 rooms ranging from economy class to five-star and luxury class. The city is the most visited of Jalisco with an economic impact of \$ usd 25 millions, (SETUJAL, 2013). With regard to the offer of rooms available, nationwide Guadalajara Metropolitan Area (GMA) is located at No. 5, and is the most visited state, receiving 45.81% of the total tourists.

There are several studies on the importance of studying the dimensions of CRM in the hotel sector (Akroush et al, 2011, Sadek et al, 2011, Sin et al, 2005), that although the CRM can enable effective differentiation and improve customer loyalty and therefore the profitability of the company. As a hotel company is an economic agent aims to maximize its benefits from the management and exploitation of the resources are there to serve the needs and demands of the guests (Sigala, 2005).

With the implementation of CRM organizations can gain a great benefit, because they can get increase in their sales through better market segmentation, customization of products and services, obtaining higher quality products, access information and employee satisfaction, and above all ensure a long lasting customer retention and loyalty. (Alomtairi, 2009; Ozgener and Iraz, 2006, Stockdale, 2007, Verma and Chandhuri, 2009).

Theoretical framework

Using the CRM can be shown in the hospitality industry; through the collection of data on its guests a profile of each of them is created. Based on the profiles created, it is possible to know each every guest a special and personalized as the management and staff of the hotel will be familiar with the wants and needs of guests. When the hotel has enough information about your guests, you should classify and segment it to personalize the needs of each individual client or group of clients. (Ivanovic et al, 2011).

Implementation of CRM has been widely studied, from the financial sector (Akroush et al, 2011, Hussain et al, 2009, Sin, Tse and Yim 2005), even in health services (Bunthuwun et al, 2011; Hung et al, 2010), but has not done extensive research on CRM in the hospitality sector (Luck and Stephenson, 2009, Wu and Lu, 2012). Vogt (2011) mentions that although there is an increasing use of CRM in tourism is still limited number of studies of various industrial applications.

The hotel industry capture large amounts of data about customers, which can be transformed into better knowledge about them, which can be useful for the implementation of CRM, obtaining and improving efficiency, (Mguyen et al, 2007; Nasution y Mavondo, 2008; Dev y Olsen, 2000).

Although the hotel chains seek new ways to build relationships with your customers, (Hu et al., 2010), Zineldin (2000a, 2000b) mentions the importance of CRM in the hospitality industry, and argues that most of these organizations offer, even differentiated by number of stars, is very similar to their products and services, so make it different is a challenge for companies with more resources.

CRM in the tourism sector is at an early stage of development and needs time for companies to recognize the power and importance of its application in tourism. One of the limiting factors are the financial resources necessary for the implementation and use of these technologies, as we know that a large number of companies operating in this

sector breakeven or below breakeven. (Ivanovic et al, 2011).

The CRM according to Laudon & Laudon (2004) is a business and technology discipline for managing customer relationships in order to increase revenues, profitability, satisfaction and retention thereof.

CRM involves identifying and rethinking all strategic processes that take place between an enterprise and its customers (Payne & Frow, 2005). Being an outgrowth of sales force automation and with a focus on data-mining (Chen & Popvich, 2003) CRM finds a continuous challenge in making CRM relevant to service and to non-marketing employees.

Kotorov (2003) believes that for CRM to be successful, the most important is the understanding and the approach to it, and also considers a strategy and not a software solution or a software package.

CRM and Management capability

According to Blesa (2005), part of management capability are coordinated behavior of the various functions in the organization, which must be directed to seek and gather information from consumers, competition and environment for dissemination in the organization and design and implement a response with the aim of satisfying customers by providing superior value.

The implementation of a CRM strategy involves changes both in the way a company is organized, as in their business processes (Sin, Tse and Yim, 2005), therefore it is necessary to include a variable that projects the importance and impact of administrative factors in the success of CRM. It is also essential to analyze the business objectives and organizational culture (Chalmeta, 2006). An important factor of management capability is the leadership provided by the administration and its support will be a key requirement to establish the philosophy of customer orientation at the corporate level and to support the adoption of a CRM system throughout the organization (Alt and Puschnam, 2004).

For the success of a CRM project is necessary internal and marketing support, and that the initial strategy with the client should be supported with adequate internal corporate culture that reflects the philosophy of customer relationships, from the level of top management to front-of-house staff. (Haley and Watson, 2002).

CRM and Marketing Innovation

The effectiveness and efficiency of CRM are increasingly recognized as means for developing innovation capability and providing a lasting competitive advantage, also (CRM) implemented in manufacturing and industrial clients not only retains customers but also encourages them to offer important suggestions for improving products and services (Ramani and Kumar, 2008).

CRM helps firms refine their knowledge about customers' tastes and preferences. The effectiveness and efficiency of CRM are increasingly recognized as means for developing innovation capability and providing a lasting competitive advantage (Ramani and Kumar, 2008; Sahay and Ranjan, 2008).

Marketing innovation, it refers to market research, price-setting strategy, market segmentation, advertising promotions, retailing channels, and marketing information systems (Vorhies and Harker, 2000; Weerawardena, 2003).

Innovation is a key factor to improve competitiveness of enterprises; Swiss research on small tourism enterprises, shows that one of the main reasons for success in these hotels is the high level of innovation in the sector, coupled with a high level of research. (Blanke and Chiesa 2009; Chib and Cheong 2009).

Due to the importance of this factor, several studies have analyzed the impact of innovation on competitiveness of the company and have come to the conclusion that companies that invest in research and development and conduct innovative practices are more likely to remain market and increase their performance (Ahuja and Katila, 2004).

Competitiveness

The concept of competitiveness has been defined in various dimensions and time with inaccuracies (Budd and Hirmis 2004, Porter and Ketels 2003). It has also been determined by the level of research: approaches macro, meso and micro levels, which define it differently, and from the point of view of competitiveness in companies, which are mainly based on the low cost of production. (Buzzigoli and Viviani, 2009).

Gelei (2003) has used the definition of business competitiveness as "the ability to perceive basic changes in both the external and internal environment and the ability to adapt to these changes in a way that the flow of profit

generated to guarantee operation long-term business”, also competitiveness comprises a function of two factors first, is determined by the extent to which a company can identify the value dimensions that are important to your customers the second factor is the sum of the resources and capabilities that make a company is able to create and deliver value dimensions identified important customer.

Competitiveness and Financial Performance

Boulding et al (2005) mentions that competitive performance of CRM refers to managerial perceptions about competitive performance achieved through the process of CRM, it also through continuous "dual creation of value" for the customer is obtained and company. Therefore it is important to measure the performance of CRM from both perspectives.

The competitive advantage is directly reflected in the company’s capabilities to obtain a financial result than its competitors (Arend, 2003). Currently, there is a general indicator used to measure competitiveness, however, the trend is to use financial indicators such as profitability (Kim, et al., 2008).

Competitiveness and Costs

To gain a competitive edge in the business model, the combination of low cost, high frequency, "lower cost" becomes the key strategy presentation focused on customer value, as well as benefits (Williams, 2004).

Likewise Buzzigoli and Viviani (2009) mention that competitiveness is based on the principle of least-cost production.

Competitiveness and Technology

Competitiveness in markets makes the adoption of technology has become a need for businesses. Taking it to respond to the same concepts themselves, generating competitive advantages that improve the performance of their processes. (Daft, 2008)

Several studies have both highlighted a positive relationship between the company technological level and competitiveness, in addition found that firms with higher technological levels, increase productivity and are more likely to compete in more advanced environments (Koc and Bozdag, 2007, Baldwin and Sabourin, 2002).

Based on the literature review, the first objective of this study is to expand the conceptualization of CRM and determine their relationship to competitiveness, particularly looking at the role of each of the factors involved in the hotel industry, which is presents the theoretical construct. See figure 1.

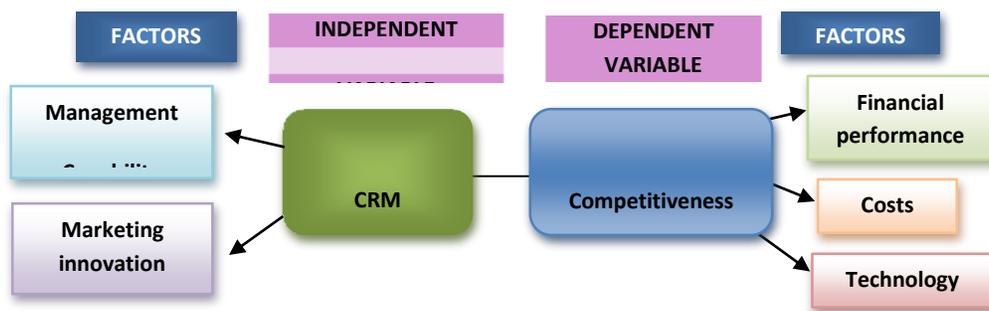


FIG. 1: THEORETICAL MODEL OF THE RELATION BETWEEN CRM AND COMPETITIVENESS
Source: Own elaboration

Methodology

The survey was applied to 418 middle and senior managers in the hotels of four and five stars in Guadalajara, used for processing information from the multivariate analysis and structural equation modeling, implemented via software (SPSS) Statistical Package for the Social Sciences, and (EQS 6.1) Structural Equation Modeling Software.

The questionnaire was designed based on the literature review, comprising a first block on CRM variable, consisting of 9 questions for the application of management capability factors and marketing innovation, and a second

block consisting of 18 questions which are based on the dependent variable competitiveness, and includes financial performance factors, technology and costs, all evaluated using a scale from 1 to 5 indicating strongly disagree or totally agree.

Based on the above theoretical model, we propose the following hypothesis:

Hypothesis:

- H1: A greater management capability, most CRM.
- H2: A greater marketing innovation, most CRM.
- H3: The greater the CRM, higher level of competitiveness.

Analysis and Discussion

The results of reliability analysis of five factors: management capability, marketing innovation, financial performance, technology and costs, using the Cronbach's alpha was satisfactory, because the five factors meet the minimum acceptance value of 0.70. The highest alpha value factors found was that of the variable costs, with 0.935, while the lowest value of the five factors found was the variable marketing innovation with alpha value of 0.775.

With Confirmatory Factor Analysis (CFA), was valued reliability and validity using the method of maximum likelihood. The results of applying Confirmatory Factor Analysis (CFA) are shown below in Tables 1 and 2.

Table 1 shows that the model provides a good fit of the data ($S-BX^2 = 303.1404$, $df = 109$, $p = 0.000$; $NFI = 0.925$; $NNFI = 0.938$; $CFI = 0.950$, and $RMSEA = 0.065$) all data are satisfactory and acceptable.

TABLE 1: INTERNAL CONSISTENCY AND CONVERGENT VALIDITY OF THE THEORETICAL MODEL

Variable	Indicator	Factorial Loading	Robust Valor-t	Cronbach's Alpha	CRI	VEI
Management capability	CRM1	0.600***	1.000*	0.820	0.838	0.569
	CRM3	0.855***	11.683			
	CRM4	0.848***	11.897			
	CRM5	0.685***	10.391			
Marketing innovation	CRI1	0.688***	1.000*	0.775	0.786	0.551
	CRI3	0.783***	15.283			
	CRI4	0.754***	13.219			
Financial performance	FP3	0.762***	1.000*	0.884	0.886	0.661
	FP4	0.861***	16.938			
	FP5	0.883***	16.472			
	FP6	0.740***	13.929			
Costs	PC3	0.922***	1.000*	0.935	0.933	0.784
	PC4	0.964***	42.198			
	PC5	0.871***	27.602			
	PC6	0.774***	19.713			
Technology	TE3	0.919***	1.000*	0.817	0.825	0.704
	TE4	0.752***	9.636			
S-BX ² (df = 109) = 303.1404 (p < 0.0000); NFI = 0.925; NNFI = 0.938; CFI = 0.950; RMSEA = 0.065						

* = Parameters in the identification process

*** = p < 0.001

Table 1 shows the values of Cronbach's alpha, the composite reliability index (CRI) and the variance extracted index (VEI). Alpha values are above 0.70, while the CRI and VEI values are superior to 0.7 and 0.5 respectively, which is satisfactory. As evidence of convergent validity, Cronbach's alpha results indicate that all items related factors are significant (p < 0.001) and size of all standardized factor loadings are greater than 0.60 (Bagozzi & Yi, 1988).

TABLE 2: DISCRIMINATING VALIDITY OF THE THEORETICAL MODEL MEASUREMENT

Variables	Management capability	Marketing Innovation	Financial performance	Costs	Technology
Management capability	0.569	0.554	0.244	0.277	0.405
Marketing Innovation	0.418 , 0.690	0.551	0.275	0.310	0.397
Financial performance	0.160 , 0.328	0.177 , 0.373	0.661	0.040	0.103
Costs	0.165 , 0.389	0.180 , 0.440	0.066 , 0.146	0.784	0.132
Technology	0.277 , 0.533	0.255 , 0.539	0.009 , 0.215	0.026 , 0.290	0.704

The diagonal represents the variance extracted index (VEI), while above the diagonal shows the variance (the correlation squared). Below the diagonal, is presented to estimate of the correlation factors with a confidence interval of 90%.

Table 2 shows the measurement provided in two ways. First presents the estimate of the correlation factors with a confidence interval of 90%. Secondly extracted variance between the pair of constructs must be greater than the variance extracted index (VEI).

Based on the above two criteria, there is sufficient evidence of reliability and convergent and discriminant validity of the model.

Table 3 shows the results of the hypothesis test of the theoretical model is obtained by performing a structural equation model (SEM)

- H1: A greater management capability, most CRM.
- H2: A greater marketing innovation, most CRM.
- H3: The greater the CRM, higher level of competitiveness.

TABLE 3: SEM RESULTS OF THE THEORETICAL MODEL

Hypothesis	Structural Relationship	Standardized Coefficient (β)	Robust t-value	Fit Indices Measure
H1: A greater management capability, most CRM	Management capability → CRM	0.415***	11.323	$S-BX^2_{(101)} = 280.8916$ p = 0.000
H2: A greater marketing innovation, most CRM.	Marketing innovation → CRM	0.479***	14.151	NFI = 0.930 NNFI = 0.938
H3: The greater the CRM, higher level of competitiveness.	CRM → Competitiveness	0.531***	22.355	CFI = 0.954 RMSEA = 0.065

*** = p < 0.001

Table 3 shows the standardized coefficients, the t-robust and fit indices. According to Romero & Zunica (2005), the beta coefficients (β) or allow standardized coefficients determine the explanatory variable is strongest for the explanation, that is, allow us to evaluate the relative importance of each independent variable in the equation. Moreover, Wooldridge (2009) explains that robust statistics is an alternative approach to classical statistical methods. The object is to produce estimates that are not affected by small variations from the assumptions of the models. A robust t-statistic must be greater than 10.

Also, regarding the hypothesis **H1** the results were ($\beta = 0.415$, $p < 0.001$) which indicate that explains management capability y 41% the CRM. For hypothesis **H2** the results were ($\beta = 0.479$, $p < 0.001$) and indicate that marketing innovation has greater weight and importance as it explains 47% CRM independent variable. Finally for **H3** results obtained were ($\beta = 0.531$, $p < 0.001$) indicate that the CRM has significant positive effects on competitiveness. As far as management capability increased marketing and innovation together, there is higher level of competitiveness.

Limitations

Although the universe selected for this study were the hotel category 4 and 5 stars and luxury class, is intended to include for future research known as boutique hotels, as this kind of establishment is showing strong growth in the Guadalajara metropolitan area for a market segment with very distinctive features including personalized service stands out.

Conclusions

Note that the five factors that emerged from the study variables meet the minimum acceptance value, however for the hotel sector, competitiveness depends mainly on cost management and a lower proportion of customer relationships depend on the marketing innovation.

It is noteworthy that this research, the most important element in the CRM is the management capability, which in the hotel sector is essential, as there must be a culture of customer-oriented company, where all departments should have as priority to meeting the needs of those to create loyalty.

The costs and competitiveness keep a close relationship, with costs greater weight element in competitiveness. Hotel companies must therefore deliver services in time, place and manner preferred by customers at better prices than those offered by competitors, covering at least the opportunity cost of the resources used.

The purpose of business is to earn profit hotel, offering high quality and are competitive, in order to participate in a dynamic market. Hotels must consider the global implications to be prepared to address the issues that arise in a world and changing environment.

For all of the above, it is considered to analyze and measure the initiative and implementation of CRM in hotel enterprises of Guadalajara is helpful because by building lasting relationships by understanding the wants and needs of each client in particular, adds value to the company and the customer and therefore competitiveness levels rise.

References

- [1] Abdullateef, A.O., Mokhtar, S.S., Yusoff, R.Z. (2010). The impact of CRM Dimensions on Call Center Performance. *International Journal of Computer Science and Network Security*, 10(12), 184-195.
- [2] Ahuja, Gautam y Katila, Riitta (2004). Where do resources come from?: The role of idiosyncratic situations. *Strategic Management Journal*, 25 (8-9): 887-907.
- [3] Akroush, N.M., Dahiyat, E.S., Gharaibeh, S.H., Abu-Lail, N.B. (2011). Customer relationship management implementation. An investigation of a scale's generalizability and its relationship with business performance in a developing country context. *International Journal of Commerce and Management*, 21(2), 158-191.
- [4] Almotairi, M. (2009). A Framework for CRM Success. *Proceedings of the European and Mediterranean Conference on Information Systems 2009*. Izmir, Turkey, 13-14 July.
- [5] Alt, L., Pushmann. (2004). Successful practice in Customer Relationship Management. *Hawaii International Conference on Systems Sciences*.
- [6] Arend, R. J. (2003). Revisiting the logical and research considerations of competitive advantage. *Strategic Management Journal*, 24 (3), 279-284.
- [7] Baldwin, John y Sabourin, David (2002). Advanced technology use and firm performance in Canadian manufacturing in the 1990's. *Industrial and Corporate Change*, 11 (4), 761-789.
- [8] Becker, U.J., Greve, G., Albers, S. (2009). The impact of technological and organizational implementation of CRM on customer acquisition, maintenance, and retention. *International Journal of Research in Marketing*, 26(3), 207-215.
- [9] Beldi, A., Cheffi, W., Dey, B. (2010). Managing customer relationship management projects: The case of a large French telecommunications company. *International Journal of Project Management*, 28(4), 339-351.
- [10] Blanke, J., Chiesa, T., & Herrera, E. T. (2009). The travel & tourism competitiveness index 2009: Measuring sectoral drivers in a downturn. *The Travel & Tourism Competitiveness Report 2009: Managing in a Time of Turbulence*, 3-37.
- [11] Blesa Pérez A., Ripollés Meliá M. (2005). Relación entre la orientación al mercado y la orientación emprendedora: su influencia en el rendimiento de la empresa. *Revista Europea de Dirección y Economía de la Empresa*, 14, (3).
- [12] Boulding, W; Staelin, R; Ehret, M and Johnston, W (2005). A Customer Relationship Management Roadmap: What is Known, Potential Pitfall, and Where to Go, *Journal of Marketing*, 69(4), 155-166.
- [13] Budd L. and A. Hirmis. (2004). Conceptual Framework for Regional Competitiveness. *Regional Studies*, 38(9) 1015-1028
- [12] Bunthuwun, L., Sirion, C., Howard, C. (2011). Effective Customer relationship management of health care: A study of the perceptions of service quality, cooperate image, satisfaction, and loyalty of that outpatients of private hospital in Thailand. *ASBBS Annual Conference*, Las Vegas, February, 17(1), 198-211.
- [13] Buzzigoli, L. and A. Viviani. (2009). Firm and System competitiveness: Problems of definition, measurement and analysis. *Firms and system competitiveness in Italy*, Firenze University Press, 11-37.
- [15] Chalmeta, R. (2006). Methodology for customer relationship management. *Journal of Systems and Software*, 79(7): 1015-1024.

Note: "Contact author for the list of references".

Intangibles as feedstocks to capability differentials: a DMO perspective

Antonio Iazzi, antonio.iazzi@unisalento.it
Pierfelice Rosato, pierfelice.rosato@unisalento.it
Silvia Gravili, silvia.gravili@unisalento.it
University of Salento, Italy

Intangibles as feedstocks to capability differentials: a DMO perspective

Abstract

From the perspective of destination management policy and strategy, the present research aims to: 1) identify the role of intangibles – in the perception of destination management – in supporting the achievement of a DMO’s institutional goals; 2) verify the adoption of programs that effectively recognize intangibles as a source of equitable development; 3) identify the main elements that may positively affect network development in terms of collaborative project management, strategic planning, organizational focus and fostering cooperation among destination actors.

After identifying and categorizing the intangibles that differentiate a tourism destination and make it more competitive, the paper presents a quali-quantitative analysis based on in-depth interviews with DMO managers and stakeholders, and an examination of projects that DMOs have developed, financed or participated in over the past five years.

1. Introduction

In recent years, the strategic management of territories in a regional marketing perspective has been the subject of growing interest on the part of both the scientific community, in Italy and elsewhere (Pechlaner and Weiermar, 2000; Ejarque, 2003; D’Elia, 2007; Pencarelli and Splendiani, 2008), and the institutional figures responsible for local development policies.

Indeed, the theme of destination management, understood as “the sum of the strategic, organisational and operational decisions by which the process of specifying, promoting and marketing a region’s tourism goods and services is managed, in order to generate incoming tourism flows” (Martini, 2005), is held to be crucial in terms of guaranteeing a tourism destination’s growing levels of competitiveness.

In this conceptual framework, the central hypothesis of this paper is that the complex system of tourism destinations’ material attractors is necessary but not in itself sufficient to guarantee competitiveness. The latter may be seen as a broader concept, closely linked to the activation of a combination of abilities and skills of an organisational and managerial character. By their very nature intangible, such skills enable first the conceptualisation and then the provision of an integrated range of goods and services, able to meet the real needs of their potential market of reference (Cantone, Risitano and Testa, 2007). This is shown by the presence of destinations which, despite having attractors of particular renown, are characterised by unsatisfactory levels of competitiveness.

For these reasons, the objectives of this study are: 1) to identify the role played – in the perception of destination managers – by intangible assets in supporting a DMO in reaching its institutional objectives; 2) to verify the adoption of planning measures that recognise intangible assets as a source of both competitive advantage and sustainable development; 3) to assess the role and involvement of the actors, and thus the activation of the network, in the development of planning strategies focused on intangibles.

2. Attractiveness and competitiveness of tourism destinations

A “tourism destination” may be considered as a group of products, services and attractions variously arranged in a geographically defined space that is recognised as a unified system via the tourist’s experience of it (Franch, 2010). Seen in this way, it is clearly the fruit of a continuous and dynamic process of a shared construction characterised by the involvement, in a network of mutual interdependence, of institutions, the destination’s economic actors and the individual consumer (with his/her baggage of expectations and experiences), whose judgements and memories are influenced by the other consumers with whom he/she comes into contact.

The competitive success of a tourism destination thus depends on its ability to bring to market a package of functional, psycho-social, experiential and value-based benefits (Busacca and Bertoli, 2009). It must guarantee the potential user a level of satisfaction at least equal to what other rival destinations are able to provide (Murphy, Pritchard

and Smith, 2000; Enright and Newton, 2004) and it needs to be sustainable over time, taking account of economic, social and cultural aspects (Ritchie and Crouch, 2000; Caroli, 2006).

This perspective redefines the terms of the relationship between the attractiveness and competitiveness of a tourism destination. Sometimes used inappropriately as synonyms, in fact the two terms express quite distinct concepts. Attractiveness refers to the aptitude of the destination – primarily based on its own resources, both specific and generic – in generating incoming flows of tourists who are potentially interested in the specific destination (Hu and Ritchie, 1993; Kim, 1998; Gallarza, Saura and Garcia, 2002; Van der Arka and Richards, 2006). Competitiveness (Crouch and Ritchie, 1999; Buhalis, 2000; Kozak, 2002; Dwyer and Kim, 2003; Ruhanen, 2007; Sainaghi, 2008) lies in the ability to guarantee, in a long-term perspective and on the basis of the incoming flows it generates, economic and social returns that are sustainable and in line with the expectations of both the regional system of which the destination is a part (internal stakeholders such as companies, institutions, citizens, etc.), and specific segments of the potential market (external stakeholders).

Attractiveness thus represents a fundamental precondition on which to build a destination's competitiveness, which however is a broader concept, closely connected to the socio-economic development of the area in which it is situated. In this sense, it can be argued that in order for a destination to be competitive, it has to activate a specific system of resources (mainly of a tangible nature) that is able to make it attractive, as well as a combination of abilities and skills (by their very nature intangible) of an organisational and managerial character (Aaker, 1987; Brondoni, Gatti and Corniani, 2002). Such skills must enable first the conceptualisation and then the provision of an integrated range of goods and services, able to meet the real needs of their potential market of reference. Competitiveness is therefore the result of the interaction of a number of different factors that need to be recognised, interpreted and managed.

The international managerial literature has proposed various models for identifying and analysing the determinants of a destination's competitiveness (Newall, 1992; Pearce, 1997; Kozak and Rimmington, 1999; Ritchie and Crouch, 2000; Dwyer, Mellor, Livaic, Edwards and Kim, 2004; Enright and Newton, 2004; Ruhanen, 2007). Schematically these determinants – on whose constant interaction a destination's degree of competitiveness depends – can be divided into three macro-categories:

- the variety of the specific and generic tourism resources that make up the destination and the combination of tourist facilities that serve to construct the range of goods and services it has to offer; these two factors represent the elements on which the destination's attractiveness to tourists is founded;
- the destination's management processes and activities; these reflect the organisational and governance models and the development strategies of the destination, devised on the basis of the resources it can draw from and external factors (the behaviour of current demand and the main trends of potential demand);
- the perception of the DMO in terms of awareness, image and reputation.

This approach to the theme of a tourism destination's competitiveness highlights the need to create a framework of reference in which to identify the determinants in accordance with a systemic logic that gives due consideration to the interdependences. In this regard, it is worth pointing out that if the above-described macro-categories are viewed in terms of the tangible/intangible distinction, a large and particularly significant proportion of the determinants of a destination's competitiveness fall on the side of intangible assets. This appears to be the appropriate key in which to provide management with useful support for decision-making with a view to enhancing the competitiveness of their destination.

3. The intangible assets of tourism destinations: a proposed schematic theoretical representation

Now that we have set out the features of the constructs of "attractiveness" and "competitiveness", the objective of this paper is to study in greater detail the concept of intangible assets with reference to tourism destinations, in order to observe their contribution to competitiveness. Indeed, intangibles have long been a key topic in the managerial literature, which has highlighted their significant contribution to the competitiveness of companies (Vicari, 1992; Buttignon, 1993). It is important to understand that this refers not to individual firms but to a particular type of

aggregation, i.e. tourism destinations, composed of a combination of products, services and attractors that are variously distributed in a specific regional space. The range of resources linked to a *tourist destination product (tdp)* thus require detailed study in order to identify the features of each of them and provide information to management that will be useful in planning strategic choices.

The tangible resources of a *tdp* can be classified as follows: a) general resources, such as economic and social infrastructure and financial resources; b) specific resources, distinctive and otherwise, such as cultural and archaeological items, as well as landscape and natural heritage; c) tourist services, in various forms and at various levels, which physically enable the tourist to visit and stay in the area.

The identification of intangible resources with reference to a *tdp* requires: a) a review of the literature on intangibles, in order to grasp their features and specific properties; b) a fresh reading of the literature on tourism destinations and strategic area management.

The first resource referred to here, adapting the concept of enterprise culture, is a “culture of the territory”, understood as the combination of values and experiences that guide the behaviours of the actors who are involved in a destination and determine their ability to take strategic decisions. This construct is particularly relevant for complex organisations, such as aggregations of companies on a regional basis, for which the centrality of enterprise culture in the management of its internal and external relations is clear. Indeed, it should be remembered that aggregations of this kind are characterised by two levels of competitiveness: one concerns the competitive comparison between the destinations present on a global scale, while the other develops within the specific destination and concerns the companies that operate in it (Buhalis and Cooper, 1998; Franch, 2002; Keller, 2006).

The presence of this “culture of the territory” in the context of tourism destinations can be verified by observing: i) the sensitivity of local government to the theme of tourism (measurable with reference to its readiness to intervene); ii) the entrepreneurial dynamism of the tourism sector (assessed with reference to indicators of the survival/vitality of companies or their activities); iii) the attitude towards internal integration, understood as the willingness to undertake joint initiatives together with other actors who may be one’s co-opetitors; iv) the diffusion of a culture of hospitality, an indicator of particular significance in an area with high tourism flows (the presence of info points, tourist guides, the favourable attitude of the local population); v) the presence of initiatives to promote and at the same time to safeguard the region, with a view to sustainability in both a social sense (protecting the area’s traditional forms of production) and an environmental sense (in terms of safeguarding the territory itself), not forgetting sustainability in economic terms.

Another intangible asset is “human resources”, which include the managerial skills and abilities of local actors and stakeholders (thereby counting together all the human resources of an area) and their knowledge, understood in all the senses cited in the literature including the range of expectations that orient their actions (Castaldi, 2007).

This intangible asset entails: i) the ability of the public administration to guide the growth of tourism in the area (measurable by verifying the presence of local government bodies in the local tourism systems and tourism districts, their role in the mechanisms of governance and the amount of resources allocated to the smooth running of the destinations themselves); ii) the readiness of entrepreneurs in the tourism sector and the associated production chains (food-processing, services, etc.) to supply a range of goods and services that are able to satisfy the expectations of consumers (the quality and differentiation of the accommodation structures present and the level of user satisfaction); iii) existing knowledge, together with the exploration, identification and integration of new knowledge; iv) organisational routines, i.e. consolidated approaches followed by companies that allow them to adapt to changes in the socio-economic context and their own internal configurations; v) scientific expertise, understood as the presence of universities and research centres that contribute to the genesis and spread of the abilities and skills that the region needs.

A resource of particular importance is the DMO’s “*reputation*” among stakeholders (Deephous, 2000). This arises from the ability of the destination’s management to promote the region’s identity, thereby generating an image that acquires renown and is sought after by the final user. Put briefly, this entails developing a “brand heritage” that will lead in turn to a brand loyalty that confers a long-term competitive advantage (Roberts and Dowling, 2002). The process that enables the management to increase the area’s positive reputation among potential visitors can be summarised as follows: a) identification and promotion of the destination’s tangible assets (the starting point for tourism in the area); b) development of a distinct regional identity, which results from (among other things) the

formation of a cognitive consonance between the specific features of this identity and the expectations of the potential user; c) promotion of the range of goods and services on offer and the creation of an image that is consistent with the specific features of the area and is able to enhance its renown. It is clear that the value of this asset is partly determined by the characteristics of all the resources, both tangible and intangible, representing the entire heritage that the context of the destination is able to provide.

Worthy of specific mention is the information system, the support architecture for managerial choices, considered in the literature to be an intangible asset (Brondoni, Gatti and Corniani, 2001) due to the contribution it makes to competitiveness via the management of information flows (Brondoni, 2004). While information as a resource has a natural tendency to circulate, an efficient information system can boost the potential of the intangible assets by ensuring the sharing of information on the entire range of resources. By way of example, consider the following types of information (Hitami, 1988): information on the context and the specific sector of reference; information from the social interlocutors (customers and others) which serves to raise the area's credibility and image and thus its reputation among the stakeholders; internal information, which serves to improve and develop company organisation and thus organisational routines (Fig. 1).

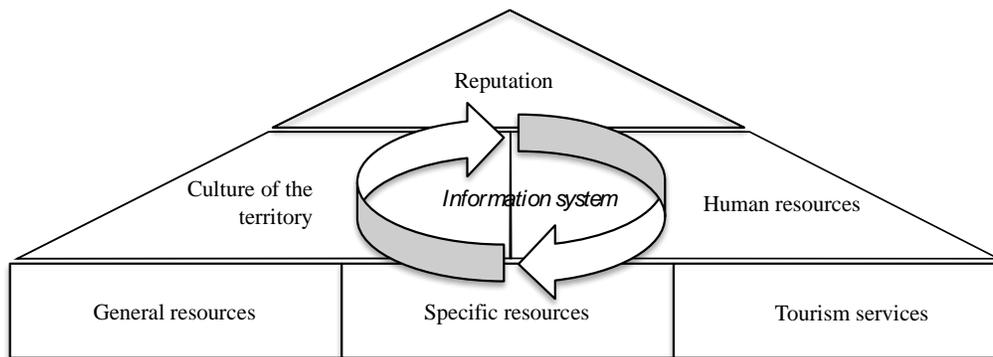


FIG. 1: RESOURCES IN A TOURISM DESTINATION

From the considerations set out thus far, it follows that as a resource, “Reputation” represents the end result of the management of the other resources, tangible and otherwise, as it is strongly influenced by their characteristics and the ways in which they are used. The ability to construct an area's reputation and promote it by means of suitable branding policies represents a strategic necessity for destinations in order for them to be able to effectively compete in the current context. It is in this way that the visibility necessary to be noticed is developed, thereby fuelling the processes that bring visitors to the area. This requires the ability to coordinate and monitor the various actors and stakeholders present, i.e. a strong and unified governance of all the resources, designed to ensure a differentiation that is useful for the destination's competitiveness.

4. The methodology of the research

The objectives set out in the premise required a study organised into the following steps:

- a) analysis of the managerial literature on the competitiveness of tourism destinations and their intangible assets;
- b) formulation of a hypothetical representation of the system of the resources that make up the heritage of tourism destinations;
- c) in-depth interviews with semi-structured questions, designed to measure the degree to which the various types of tangible and intangible assets identified in the proposed theoretical model contribute to the competitiveness of a tourism destination, and the role played in this sense by the local network.

On-field investigations were conducted in 15 Italian and international DMOs¹, all under public administration, 11 of which are governed by a board of directors. Common features of these DMOs include a historic and cultural component and the widespread presence of food-and-wine, rural and MICE tourism. They are also contexts which, with only one exception, have seen the presence of tourists grow in the last few years, particularly from abroad.

The DMOs forming the object of this study were selected by considering regional contexts with an organisation dedicated to the promotion of tourism that were characterised by strategic attitudes oriented to the pursuance of the four objectives identified by Pike (2004): improving the destination’s image, increasing the wealth produced by companies, reducing seasonality, ensuring long-term financial growth.

5. Main results

As previously stated, the objective of the research is to provide a representation of the contribution – in the perception of the DMOs – of tangible and intangible resources to the competitiveness of a tourism destination.

The opinion of the interviewees is that intangible resources generally have greater weight in the competitiveness of destinations. The differing emphasis on the two macro-categories of resources is confirmed by the planning practices enacted by the DMOs over the last 5 years, which are characterised by greater investment (in budgetary terms) in the enhancement and promotion of intangible resources (Fig. 2).

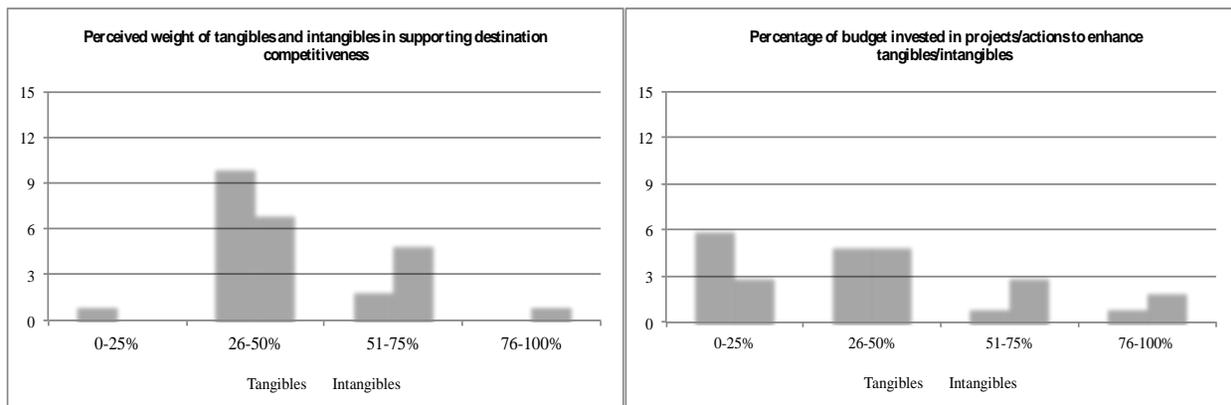


FIG. 2: TANGIBLES AND INTAGIBLES IN DESTINATION COMPETITIVENESS: PERCEIVED WEIGHT AND BUDGET INVESTED

It should be pointed out that half of the DMOs have implemented up to 5 projects, while 4 have implemented more than 20 projects focused on intangible resources. This shows that the projects implemented have placed greater emphasis on the development of intangibles in order to support the competitiveness of the destinations. The priority areas of intervention in previous projects are shown in the following graph (Fig. 3).

¹ The DMOs referred to in the text are: Valle D’Aosta, Trentino Alto Adige, Puglia, Piemonte, Molise, Friuli Venezia Giulia, Basilicata, Zaragoza Turismo, Vaduz, Stockholm, Propriano, Norfolk, Leicester, Lancaster City Council, Austria.

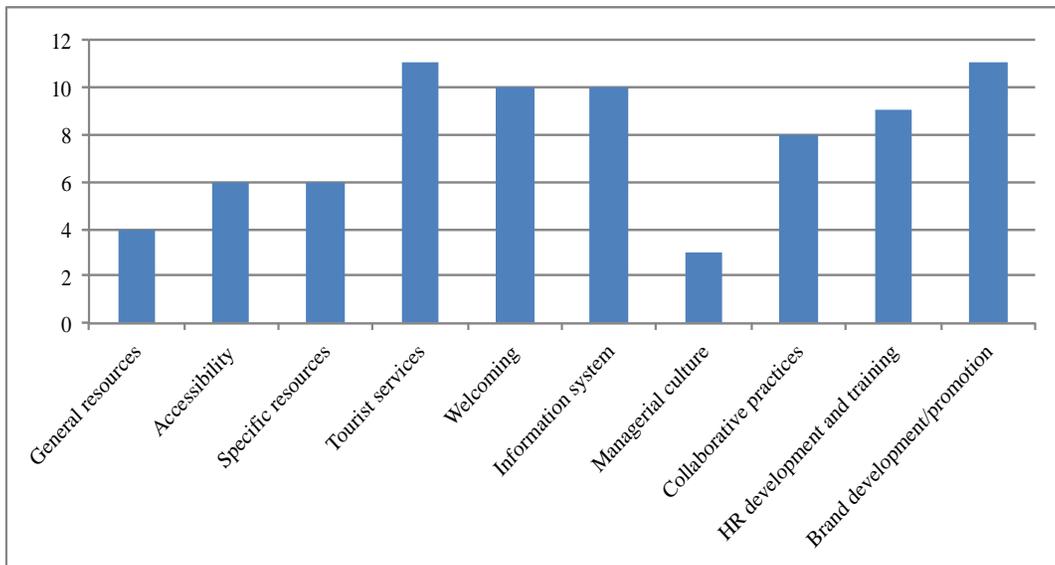


FIG. 3: AREAS OF INTERVENTION IN DMO PROJECTS

This orientation has not entailed modifications to the planning and management of the projects. What emerges in the management of the destinations observed in the present study is a certain attention to the construction of networks, regardless of the object of investment. The main interlocutors are: entrepreneurs, business federations and institutions. Of lesser importance in terms of the frequency of recourse are sector intermediaries and the management bodies of the destination's main resources (museums, parks, etc.) (Fig. 4).

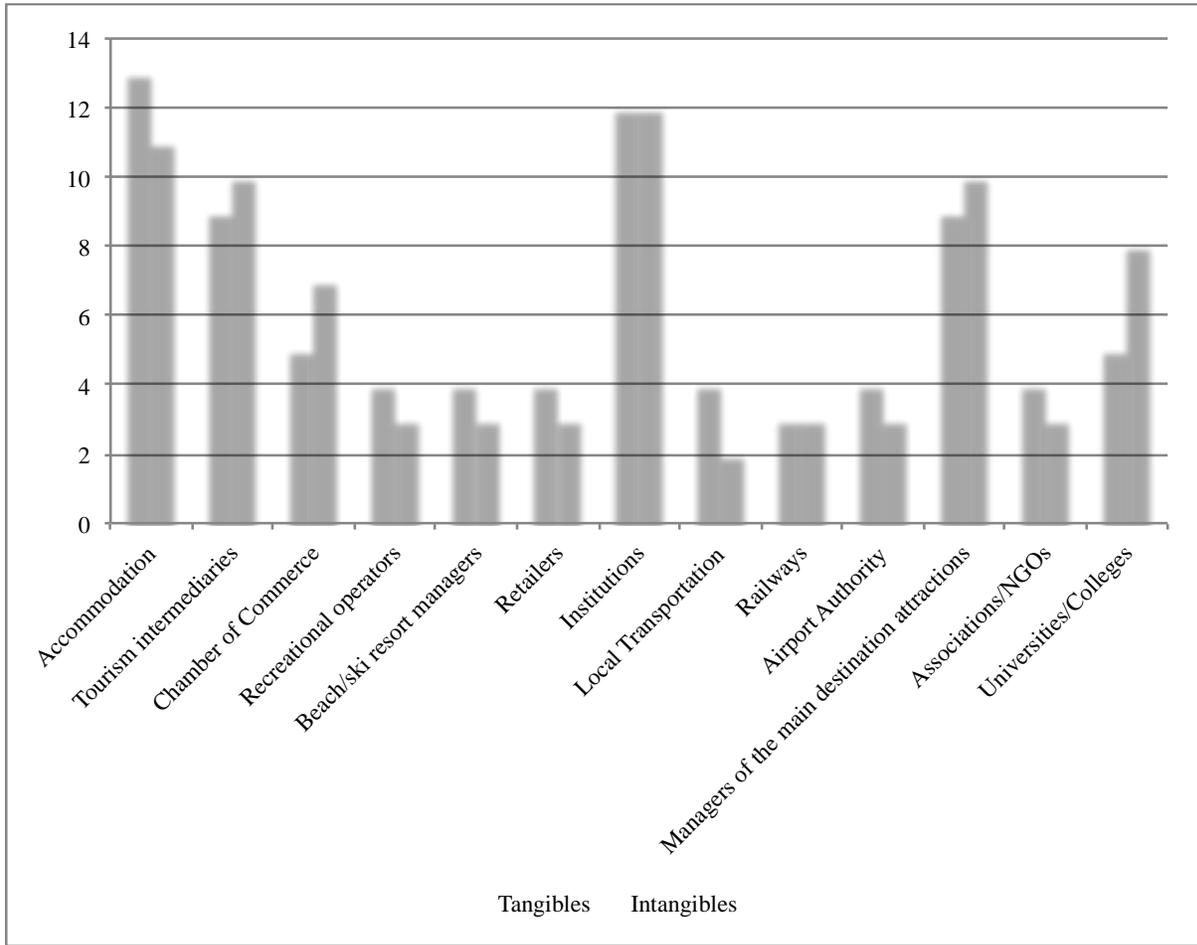


FIG. 4: PARTNERS INVOLVED IN DMO PROJECTS

To complete the study the interviewees were asked to assign a score, on a scale of 1 to 5, to a series of items that identify the different types of resource. Note that the first 6 items by average score are intangibles: Web marketing activities, Development/strengthening of the destination brand and Reputation of the destination are the top three items for competitiveness, with values close to the maximum and a narrow standard deviation (Fig. 5).



FIG. 5: ITEMS DEFINING DMO RESOURCES: PERCEIVED IMPORTANCE ON COMPETITIVENESS

Thus “reputation”, broadly considered, is cited as the indispensable resource for the construction of a competitive DMO. High levels of importance, above 4, are also attributed to culture of the territory (among the associated items indicated as important are the hospitality of the residents and the ease of obtaining information) and to human resources (above all knowledge of foreign languages, the ability to use technology in the promotion and commercialisation of the product, the ability to develop and implement planning initiatives in terms of destination development).

6. Conclusions and managerial implications

The recognised importance of intangible resources from the perspective of destination management shows that the process of reading the context and strategic planning for tourism destinations requires further effort in terms of awareness-raising in order to be complete. Indeed, for too long the focus was on increasing attractiveness, leaving competitiveness in the shadows. As argued in the premise and confirmed in the literature, destination management processes must embrace all potential resources, neglecting no factor that may generate a competitive advantage.

The study highlights the special attention paid by the interviewees – who acknowledge the current importance of competitiveness among geographical areas and destinations – to the construction of reputation. In this sense, it appears that a special role can be played by technology, particularly applications linked to the Internet. The culture of the territory, as defined above, begins to take on importance in the course of promoting the specific features of a location, as a result of the increased value of the experience from the perspective of the visitor. In this sense it is a good idea to consolidate the culture of hospitality among both the operators and the local population in general, for example by developing a platform for cross-sectorial information-sharing or by launching a series of awareness-raising campaigns on the themes of tourism and its related sectors. Lastly, there is a clear awareness of the role played by human resources in a destination’s competitiveness.

A further interesting point to emerge is the steps taken by the DMOs analysed to ensure the involvement of a range of local stakeholders in the preparation and execution of planning projects, regardless of their focus. The activation of growth processes linked to reputation cannot exclude the involvement of a destination’s actors and stakeholders, especially given that reputation itself is necessarily determined by the resources that are present and activated in the area.

Something that has begun to take root and needs to be supported is the notion that a DMO must, like a *learning organization*, be able to activate the multiple skills present in the area in a systemic perspective of continuous learning. Indeed, the implementation of adequate knowledge management processes, designed to enhance a destination’s human resource skills, would improve the ability to proactively adapt to rapid shifts in the surrounding environment and to generate new knowledge. In this sense, the development of training programmes to improve the communicative, technological and relational skills of people working in DMOs and, more generally, to drive the growth of human capital, could have a positive impact in terms of increasing the culture of hospitality and providing a product that is more and more in line with the expectations of the tourist.

References¹

- [1] Aaker, D. (1987). Managing assets and skills: The key to a sustainable competitive advantage. *California Management Review*, Winter, 91-106.
- [2] Brondoni, S. M., Gatti, M., & Corniani, M. (2002). Competizione globale, risorse immateriali e responsabilità sociale d'impresa. XXV Convegno AIDEA, *Competizione globale e sviluppo locale tra etica e innovazione*, vol. 1.
- [3] Brondoni, S.M. (2004). *Il sistema delle risorse immateriali d'impresa: cultura d'impresa, sistema informativo e patrimonio di marca*. Giappichelli: Torino.
- [4] Buhalis, D. (2000). Marketing the competitive destination of the future. *Tourism Management*, 21(1), 97-116.
- [5] Buhalis, D., & Cooper, C. (1998). Competition or co-operation: The needs of Small and Medium sized Tourism Enterprises at a destination level. In Laws, E., Faulkner, B., & Moscardo, G. (ed.), *Embracing and managing change in Tourism*. Routledge: London.
- [6] Busacca, B. & Bertoli, G. (2009). *Customer Value. Soddisfazione, fedeltà, valore*. Milano: Egea.
- [7] Buttignon, F. (1993). Le risorse immateriali: ruolo strategico e problematiche di rilevazione. *Sinergie*, 30.
- [8] Cantone, L., Risitano, M. & Testa, P. (2007). Strategie di sviluppo delle destinazioni turistiche e ruolo della marca territoriale. *Mercati e competitività*, 1, 23-32.
- [9] Caroli, G. (2006). *Marketing territoriale. Strategie per la competitività sostenibile del territorio*. Milano; Franco Angeli.
- [10] Castaldi, L. (2007). *Analisi e gestione della conoscenza nell'impresa. Diritti di proprietà intellettuale e altri meccanismi di valorizzazione*, Carocci: Roma.
- [11] Crouch, G. I., & Ritchie, J. R. B. (1999). Tourism, competitiveness, and societal prosperity. *Journal of Business Research*, 44, 137-152.
- [12] Deephouse, D.L. (2000). Media Reputation as a Strategic Resource: An Integration of Mass Communication and Resource-Based Theories. *Journal of Management*, 26(6),1091-1112.
- [13] D'Elia, A. (2007). *Economia e management del turismo. Destinazioni e imprese nello spazio turistico globale*. Milano: Il Sole 24 Ore Libri.
- [14] Dwyer, L., & Kim, C. (2003). Destination Competitiveness: Determinants and Indicators. *Current Issues in Tourism*, 6(5), 369- 414.
- [15] Dwyer, L., Mellor, R., Livaic, Z., Edwards, D., & Kim, C. (2004). Attributes of Destination Competitiveness: A Factor Analysis. *Tourism Analysis*, 9, 1-2
- [16] Ejarque, J. (2003). *La destinazione turistica di successo. Marketing e management*. Milano: Hoepli.
- [17] Enright, M. J., & Newton, J. (2004). Tourism destination competitiveness: a quantitative approach. *Tourism Management*, 25(6), 777-788.
- [18] Fernandez, E., Montes, J.M., & Vazquez, C.J. (2000). Typology and strategic analysis of intangible resources A resource-based approach. *Technovation*, 20, 81-92.
- [19] Franch, M. (2002). *Destination Management. Governare il turismo tra locale e globale*. Giappichelli: Torino.
- [20] Franch, M. (2010). *Marketing delle destinazioni turistiche*. Milano: McGraw-Hill.
- [21] Gallarza, M. G., Saura, I. G., & Garcia, H.C. (2002). Destination image towards a conceptual framework. *Annals of Tourism Research*, 29 (1), 56-72.
- [22] Hu, Y. Z., & Ritchie, J. R. B. (1993). Measuring destination attractiveness: a contextual approach. *Journal of Travel Research*, 32(2), 25-35.
- [23] Itami, H., & Roehl, T. W. (1987). *Mobilizing Invisible Assets*. Cambridge: Harvard University Press.
- [24] Keller, P. (2006). Innovation in tourism policy. In OECD (ed.), *Innovation and growth in tourism*, Paris: OECD.
- [25] Kim, H. B. (1998). Perceived attractiveness of Korean destinations. *Annals of Tourism Research*, 25(2), 340-361.
- [26] Kozak, M. (2002). Destination benchmarking. *Annals of Tourism Research*, 29(2), 497-519.

¹ Contact author for the full list of references.

- [27] Kozak, M., & Rimmington M. (1999). Measuring tourist destination competitiveness: conceptual considerations and empirical findings. *Hospitality Management*, 18(3), 273–283.
- [28] Martini, U. (2005). *Management dei sistemi territoriali. Gestione e marketing delle destinazioni turistiche*. Torino: Giappichelli.
- [29] Murphy, P., Pritchard, M., & Smith, B. (2000). The Destination Product and its Impact on Traveller Perceptions. *Tourism Management*, 21(1), 43-52.
- [30] Newall, J. E. (1992). The challenge of competitiveness. *Business Quarterly*, 56 (4), 94-100.
- [31] Normann, R. (1992). *La gestione strategica dei servizi*. Milano: Etas.
- [32] Pearce, D.G. (1997). Competitive destination analysis in Southeast Asia. *Journal of Travel Research* 35(4), 16-24.
- [33] Pechlaner ,H., & Weiermair, K. (2000). *Destination Management*. Milano: Touring University Press.
- [34] Pencarelli, T., & Splendiani, S. (2008). Il governo delle destinazioni e dei prodotti turistici: analisi di alcune esperienze. *Mercati e Competitività*, 2, 91-121.
- [35] Ritchie, J.R.B., & Crouch, G.I. (2000). The Competitive Destination: A Sustainability Perspective. *Tourism Management*, 21(1) 1-7.

**Seeking an adrenalin rush or the chance to relax?
Analysis of motivation of adventure tourists. An Italian case study.**

Michela C. Mason mason@uniud.it
Department of Economics and Statistics, via Tomadini 30/A

Luca Gos luca.gos@uniud.it
Department of Agricultural and Environmental Sciences, Via delle Scienze 208:

University of Udine, 33100 Udine - Italy

Seeking an adrenalin rush or the chance to relax? Analysis of motivation of adventure tourists. An Italian case study.

Abstract

Purpose of the study: This paper contributes to a theoretical understanding of adventure tourism in natural park of the Friuli Venezia Giulia Region (North Est of Italy) in two ways. Firstly it proposes to determine the key motivational factors that are important for adventure tourists' decision to visit the park and to analyse the relationship between these motivational factors and their behavioural intention. Secondly it aims to analyse risk perception of each one of the different adventure tourism's activities under investigation and specifically how this perception affect behavioural intention.

Design/methodology/approach: The Friuli Dolomiti Alps Natural Park was used as a case study. A visitor survey was conducted in a 317 adventure tourists at the end of their experience in the park. The sample was selected on the basis of visitors' participation in hard adventure activities that include risk and challenge intercepted. The survey included the individual's risk perceptions inherent in many hard activities. Specifically this study using stepwise regression analysis investigated the direct effect of motivations on visitors' behavioural intention. Then, using post hoc analysis (Scheffe's test) the differences that exist between different level of adventure tourists' risk perception and their response to the five behavioural variables behavioural intentions were analysed.

Findings: The analysis of motivation factors in relation to participation of hard tourism adventure activities indicates that "activity related motivations" is a multi-dimensional phenomenon comprising four distinct motivational factors (i.e. Nature; Risk Perception; Contemplation and Socialization). Second the step wise multiple linear regression results show that nature is the only motivational factor that and tourists' behavioural intention i.e. the nature motivational factor. Finally the study encompass the risk perception as a motivational factor of adventure tourism and tries to discuss how this concept can be operationalized in tourism marketing.

Originality/value: The paper summarizes motivational factors for adventure tourists decision to revisit a park especially "nature" and "risk" which are worthy of increased research attention.

Practical implications: The present analysis helps to understand the adventure tourists' behaviour. It provides a framework as to how organizations might usefully implement a marketing strategy.

Keywords: Adventure tourism, Risk Perception, Motivation, Behaviour models; Parks.

1. Introduction

Adventure tourism has recently grown in popularity as a niche form of tourism (Swarbrooke, Beard, Leckie, & Pomfret, 2003). It is "characterized by its ability to provide the tourist with relatively high levels of sensory stimulation, usually achieved by including physically challenging experiential components" (Muller & Cleaver, 2000, p. 156). This is a specific kind of tourism, that has often been vaguely associated with ecotourism (e.g. Kutay, 1989). It should, however, be noted that adventure tourism is differentiated on the basis of the importance assumed by the three elements given below which are (Weaver, 2001): 1) an element of risk in the tourism experience (Ewart, 1989; Hall, 1992; Fennell, 1999); 2) higher level of physical exertion by the participant (Ewart, 1989); and 3) the need for specialized skills to facilitate successful participation. This is a type of tourism that is usually linked to nature, even if it is not a necessary condition since it is possible to enjoy adventure tourism even in places far from natural landscapes but with a specific implication of risk (as in Fielding's the world most dangerous places guidebook – Pelton, 1997). Therefore adventure by definition involves elements of risk that are extremely attractive to adventure tourists. Inside the macro area of adventure tourism, it is possible to identify activities such as: white-water rafting, wildness hiking, sky-diving, sea-kayaking, caving, orienteering, mountain climbing, diving and hang-gliding, according to the famous classification in literature (Sung et al, 1996/97). Within this type of tourism, mountains, lakes, oceans and the most distant and wildest places represent "escape locations" giving the tourist a feeling of adventure and risk perception as per below mentioned activities in table 1 (Pomfret, 2006).

TABLE 1: CONVENTIONAL AND CONTEMPORARY ADVENTURE TOURISM ACTIVITIES

Land based	Water based	Air based	Mixed (land/water/air)
Abseiling	Body boarding	Balloonng	Adventure racing
Backpacking ^a	Canoeing	Bungee jumping	Charity challenges
Bicycling	Canyoning	Cliff jumping	Conservation expeditions
Caving	Cruise expeditions	Gliding	Cultural experiences
Climbing ^a	Kayaking	Hang-gliding	Gap year travel
Dog sledding	Sailing	Micro-lighting	Hedonistic experiences
Hiking ^a	Scuba diving	Paragliding	Spiritual enlightenment
Hunting	Snorkelling	Parachuting	Wildlife watching
Horseback riding	Surfing	Skydiving	
Jungle exploring	Water skiing		
Motorcycling	White water rafting		
Mountain biking	Windsurfing		
Mountaineering ^a			
Orienteering			
Quad biking			
Scrambling			
Skiing ^a			
Snowboarding			
Snow mobiling			
Snow shoeing			
Via Ferrata ^a			
Wilderness experiences			

^aBackpacking, climbing, hiking, mountaineering, skiing, via ferrata and wilderness experiences are all mountaineering-related activities.

Table 1 summarized a wide variety of adventure tourism activities either “hard” or “soft” (Sung, Morrison & O’Leary, 2000) that are able to maximize the adventure tourism’s appeal to a full range of paying clientele (Beedie & Hudson, 2003). Although highly subjective, hard adventure tourism activities differentiate from others activities because they allow practitioners to experience speed, height physical exertion or a combination of these factors, that result in a risk perception or in an adrenaline rush feeling for the tourist practicing them. The present paper in order to avoid overlapping with other tourism types (e.g. ecotourism) analyses a sample of adventure tourists selected on the basis of their participation to hard adventure activities such as trekking, wilderness hiking, mountain climbing, mountain biking, rafting, canyoning, hang gliding, down hill bike and orienteering. Nowadays empirical research on adventure tourists seems to be scarcely developed (Pomfret, 2006; Fluker & Turner, 2000) especially regarding motivational research (Bentley & Page, 2001; Williams & Soutar, 2005). In accordance with this purpose we focus on the impact of motivations in an adventure tourism setting analysing specifically risk perception and the relation with behavioural intention. Existing empirical research on motivations of adventure tourists seems to need more in-depth research in order to lack the identification of adventure tourists’ motivations (Schneider & Vogt, 2012). Motivation is “the process that accounts for an individual’s intensity, direction, and persistence of effort toward attaining a goal” (Robbins, 2003, p. 155) or “the need that drives an individual to act in a certain way to achieve the desired satisfaction” (Beerli and Martín, 2004, p. 626). Another definition is the one proposed by Pizam, Neumann, & Reichel, (1979) which refers travel motivation to a set of needs that cause a person to participate in a tourist activity. As motivation can be defined as the driving force behind all behaviour (Fodness 1994; Gnoth 1997, Prebensen et al., 2013) research on motivation can be fundamental for understanding the reasons for participating in adventure tourism (Ross & Iso-Ahola, 1991). In other words motivation is a critical variable for explaining tourist behaviour and motivation has been employed as a fruitful criteria for segmentation in a large number of studies (e.g. Kerstetter et al, 2004; Rid et al, 2014; Tangeland et al., 2013). Buckley presented a meta analysis of adventure tourists’ motivations for participating tourism activities (Buckley, 2012). Some of these are known

as to relax, to see different places, to discover new cultures, to swim etc. Nearby them, there are some other reasons like to feel rush, thrill or enjoyment of risk. These latter elements can also be accepted as core ingredients of tourism for participants' motivation. We argue for the thesis that risk perception (Beck, 1992) coincides with feeling that is a combination of thrill and excitement. This definition comes very close to the concept of "rush" that is defined by Buckley as simultaneous experience of thrill and a more complex construct i.e. flow (Csikszentmihalyi, 1990) that are "associated with the successful performance of an adventure activity at a high level of skill" (Buckley, 2012, p. 963). We investigate the risk perception as part of the keys motivational terms in adventure tourism and how different level of perceived risk are associated with the different high adventure tourism activities and their relation with the behavioural variables. This paper contributes to a theoretical understanding of adventure tourists in a natural park in two ways. Firstly it proposes to determine the key motivational factors that are important for adventure tourists' decision to visit the park and to analyse the relationship between these motivational factors and their behavioural intention. Secondly it aims to test the significance of the differences in the mean among the different level of risk perceived by adventure tourists and the behavioural intention's items. Empirical understanding of this relationship has received little research attention thus examining this subject has theoretical and practical value.

2. Methodology

Data collection was performed at the Friuli Dolomiti Alps Natural Park in spring 2014. This park is located in the western mountain zone dominating the upper plain of Friuli Venezia Giulia Region (north East of Italy). The area extends over 36.900 hectares and it's characterized by the wilderness of its large valleys which present nor main roads or villages and stretch among the Dolomitic peaks. The sample for this study comprises 317 adventure tourists who participated in hard adventure activities. The interviews were selected by their participation to an hard adventure activity. Visitors were surveyed at the end of their experience to the park on weekdays and weekends in order to increase the quality of the data. The survey questionnaire consists of five parts. Part 1 of the questionnaire measures motivations; part 2 deals with the perception of risk; part 3 deals with general characteristics (socio-demographics). All scale items were measured by a 7-point Likert scale ranking from Strongly Disagree (1) to Strongly Agree (7). The questionnaire was in Italian, thus all respondents were Italian speaking tourists (99% were Italian and 1% foreign).

3. Results

The general sociodemographic characteristics of tourists interviewed is presented in Table 2. The sample was equally distributed by gender (49.8% male and 50.2% women). Tourists were predominantly relatively young: 71.92% were between 19 and 29 years old, 0.63 % under 19, 8.2% between 30 and 39 years old, 8.83% between 40 and 49, 7.89% between 50 and 65 and only 2.53% around 65 or older. Tourists in the sample showed high levels of education on average, as 64.35% of respondents had a high school degree, 32.18% a college degree or higher and only 2.84% had a junior high school level of instruction.

TABLE 2: SOCIODEMOGRAPHIC PROFILE OF RESPONDENTS

Socio-demographic variables of survey respondents (N=317)		
	Percentage	No.
Gender		
Male	49,80%	158
Female	50,20%	159
Age		
Less than 19	0,63%	2
19-29	71,92%	228
30-39	8,20%	26
40-49	8,83%	28

50-65	7,89%	25
65 and above	2,53%	8
Educational level,		
Primary school	0,63%	2
Junior high school	2,84%	9
Senior high school	64,35%	204
University or above	32,18%	102

The motivational items were defined in line with the literature on leisure motivation and specifically with the Recreation Experience Preference (REP) scale that was developed within the experiential approach for measuring what motives people to perform activities in natural areas (Manfredo et al., 1996). Means and standard deviation of the items motivation were also reported to determine which of the motivations were the most important ones (table 3).

TABLE 3: MEAN SCORE AND STANDARD DEVIATION OF THE MOTIVATION ITEMS

Motivation items	Source	Mean	Standard
To enjoy natural resources	Kim et al. (2003)	5,47	1,608
Experience peace and quiet in nature	Tangeland, Vennesland, Nybakk (2013)	5,15	1,587
To appreciate beautiful natural resources	Kim et al. (2003)	5,57	1,282
Experience fellowship whit nature	Tangeland, Vennesland, Nybakk (2013)	5,30	1,381
Experience the landscape and moods of nature	Tangeland, Vennesland, Nybakk (2013)	6,29	1,044
To be where things are natural	Manfredo et al. (1996)	5,34	1,462
To be close to nature	Manfredo et al. (1996)	6,17	1,006
To enjoy the natural scenery	Manfredo et al. (1996)	4,65	1,633
To enjoy fauna and flora	Tangeland, Vennesland, Nybakk (2013)	5,29	1,549
To have thrills	Manfredo et al. (1996)	3,76	1,776
To experience excitement	Manfredo et al. (1996)	4,66	1,770
To experience in the paced nature of things	Manfredo et al. (1996)	3,10	1,567
To feel exhilaration	Manfredo et al. (1996)	3,38	1,763
To take the risks	Manfredo et al. (1996)	4,94	1,569
To change dangerous situations	Manfredo et al. (1996)	5,90	1,192
To rest and relax	Beerli & Martín (2004)	3,77	1,683
To get away from the hustle and the bustle	Tangeland, Vennesland, Nybakk (2013)	5,66	1,377
To change from daily routine	Tangeland, Vennesland, Nybakk (2013)	3,93	1,581
To have time to think about life	Tangeland, Vennesland, Nybakk (2013)	3,57	1,636
To find peace and quiet	Tangeland, Vennesland, Nybakk (2013)	3,43	1,682
To get away from everyday life	Tangeland, Vennesland, Nybakk (2013)	4,03	1,664
To have a time for natural study	Kim et al. (2003)	5,09	1,581
To have enjoyable time with family/friends	Kim et al. (2003)	5,17	1,437
To be with others who enjoy the same things you do	Manfredo et al. (1996)	5,09	1,429

Note: Individuals were asked to indicate their level of agreement on a 7-point Likert scale ranging from 1—strongly disagree to 7—strongly agree.

To examine the dimensions underlying the motivation factors a principal component factor analysis with varimax rotation was undertaken. The 24 motivation factors items yielded four factors with eigenvalues greater than one (table

4). The first factor loading on nine items and was called “Nature”. The second factor was named “Risk Perception” and loaded heavily on six items. The third factor called “Contemplation” loaded on six items. The final factor labelled as “Socialization” loaded on three items. The Kaiser-Meyer-Olkin that measures of sampling adequacy for the motivation scales was 0.883. As shown in table 4 these four motivation dimensions accounted for 60.863% of explained variance.

TABLE 4: MOTIVATION FACTORS

Motivation factor	Factor 1	Factor 2	Factor 3	Factor 4
Motivation Item	Nature	Risk and excitement	Contemplation	Socialization
To enjoy natural resources	0,764	0,138	0,056	0,134
To experience peace and quiet in nature	0,735	0,064	0,125	0,254
To appreciate beautiful natural resources	0,727	0,099	0,223	-0,013
To experience fellowship whit nature	0,713	0,008	0,149	0,306
To experience the landscape and moods of nature	0,704	0,029	0,298	-0,029
To be where things are natural	0,692	0,014	0,247	-0,065
To be close to nature	0,661	0,083	-0,028	0,394
To enjoy the natural scenery	0,643	0,300	0,027	-0,073
To enjoy fauna and flora	0,616	0,365	-0,116	0,234
To have thrills	0,121	0,846	0,121	0,076
To experience excitement	0,174	0,824	0,158	0,012
To experience in the paced nature of things	0,236	0,787	0,120	0,120
To feel exhilaration	0,115	0,743	0,146	0,124
To take the risks	0,127	0,699	0,283	0,060
To change dangerous situations	-0,065	0,642	0,195	0,353
To rest and relax	0,005	0,353	0,717	0,061
To get away from the hustle and the bustle	0,236	0,176	0,710	0,165
To change from daily routine	0,089	0,147	0,692	0,386
To have time to think about life	0,322	0,139	0,597	-0,196
To find peace and quiet	0,037	0,495	0,514	0,120
To get away from everyday life	0,386	0,138	0,467	0,269
To have a time for natural study	0,157	0,154	0,101	0,787
To have enjoyable time with family/friends	0,149	0,170	0,306	0,742
To be with others who enjoy the same things you do	0,466	0,335	-0,045	0,494
Eigenvalue	5,082	4,356	2,889	2,280
Variance Explained	21,174	18,150	12,039	9,499
Cumulative Variance	21,174	39,325	51,364	60,863
Cronbach's Alfa	0,884	0,889	0,808	0,744
Grand Mean Of Factor	5,542	3,685	4,469	5,306
Keiser Meyer Olkin statistic	0,883			

Regarding behaviour intention first descriptive statistics were used to evaluate mean, standard deviation and secondly, exploratory factor analysis using principal component methods with varimax rotation was used to summarize the five behavioural items in order to run the regression analysis. Table 5 and 6 provides statistics information, including the mean, standard deviation for the dependent variable behavioural intention as well as the results of the factor analysis.

TABLE 5: MEAN SCORES, STANDARD DEVIATIONS AND FACTOR LOADING OF THE FIVE INTENDED BEHAVIOUR VARIABLES

Behavioural variable	Source	Mean	Standard deviation
I would spread positive word-mouth about this park	Maxham 2001	5,74	1,21
I will recommend this park to friends/relatives	Maxham 2001	4,84	1,78
I intend to revisit the park	Huang & Hsu 2009	5,62	1,28
I desire to revisit the park	Huang & Hsu 2009	5,52	1,31
If my friends were looking for a park to visit, I would tell them to try this park	Maxham 2001	5,43	1,43

Note: Means were derived from a 7-point Likert scale ranging from 1—strongly disagree to 7—strongly agree.

TABLE 6: FACTOR LABELS AND STATEMENT

	Factor Loading	Eigenvalues	Per cent of variance	Alpha coefficient	Grand mean of Factor	Keiser Meyer Olkin statistic
Behavioural variable		3,726	74,516	0,889	5,43	0,831
I would spread positive word-mouth about this park	0,876					
I will recommend this park to friends/relatives	0,576					
I intend to revisit the park	0,938					
I desire to revisit the park	0,954					
If my friends were looking for a park to visit, I would tell them to try this park	0,915					

To identify the relative importance of each of the four tourists' motivation factors on the respondents' behavioural intentions a step wise multiple linear regression was employed. Table 7 contains the results of the regression. As can be seen in the table only the motivation factor named "nature" contributed to the dependent variable suggesting that this is the main factor ($\beta = 0.596$; $p < 0.000$) to face adventure tourists' behavioural intention

TABLE 7: REGRESSION ANALYSIS RESULTS ^a

	Values	Non Standardized Coefficient B	Standardized Coefficient β	t-value	Sig.
Constant		6,241	-	4,749	0,000 ***
Nature		0,491	0,596	13,158	0,000 ***
Durbin-Watson	1,984				
R²	0,355				
Adjusted R²	0,353				

^a dependent variable behavioural intention. *Significant at 0.05 level. **Significant at 0.01 level. ***Significant at 0.001 level.

In nutshell, it can be said that the nature motivation factor only had a significant relationship with the intention to revisit the park. This seems to be partially in contrast with previous studies showing that adventure tourists use outdoor natural environments as a setting for excitement-based recreation rather than appreciation of nature (e.g. Buckley,

2010). These findings suggest to examine deeply the risk perception construct and specifically its relationship with behavioural intention. In table 8 descriptive statistics are provided simply as a way to characterize tourists' risk perception related to their participation in the different "hard" adventure tourism activities that we have considered in the present study. The table shows a discrepancy between the perception of risks that's quite low and the objective risk that is related to each activity. Specifically it appears that hang gliding was differentiated as the most risky activity followed by mountain climbing and canyoning. No big difference was observed for the other types of activities, although, on relative basis orienteering was ranked as the lowest risky activity and trekking as the second lowest one.

TABLE 8: PERCEIVED LEVEL OF RISK FOR TOURISM ACTIVITIES

Perceived level of Risk for tourism activities	Mean	Standard Deviation
Trekking	1,85	1,37
Wilderness hiking	1,88	1,27
Mountain climbing	4,17	1,52
Mountain biking	2,89	1,40
Rafting	2,10	1,22
Canyoning	3,51	1,58
Hang Gliding	5,06	1,85
Downhill bike	2,16	1,28
Orienteering	1,30	1,01

Analysis of variance with a Scheffe post hoc procedure was carried out in order to determine whether the different level of adventure tourists' risk perception differ in their response to the five behavioural variables. The results are presented in table 9. However, contrary to what might expect, the results show that a low risk perception seems to be associated to stronger tourists' positive word of mouth and a stronger intention to revisit the park.

TABLE 9: SCHEFFE RESULTS

Behavioural Intention Items	Low Risk	Medium Risk	High Risk	F-ratio	Sig. level
I would spread positive word-mouth about this park	5,99 **	5,45 **	5,88	7,89	0,000 ***
I will recommend this park to friends/relatives	5,10 *	4,59 *	4,64	3,16	0,044 *
I intend to revisit the park	5,84 **	5,37 **	5,64	4,94	0,008 **
I desire to revisit the park	5,76 **	5,28 **	5,44	5,13	0,006 **
If my friends were looking for a park to visit, I would tell them to try this park	5,73 **	5,16 **	5,08	6,68	0,001 ***

*Significant at 0.05 level. **Significant at 0.01 level. ***Significant at 0.001 level.

4. Conclusions

Effective marketing strategies for the promotion of adventure tourism settings i.e. natural parks are generally based on the analysis of tourists' motivations as driving forces for travel behaviours (Bradley et al., 1997; Cini et al., 2013; Raj, 2004; Um & Crompton, 1990). In line with this view important findings from this study warrant discussion. First, the analysis of motivation factors in relation to participation of hard tourism adventure activities provides evidence that "activity related motivations" is a multi-dimensional phenomenon comprising four distinct motivational factors (i.e. Nature; Risk Perception; Contemplation and Socialization). Second the findings do not completely support the proposition that adventure tourists use outdoor natural environments as a setting for excitement-based recreation rather than appreciation of nature like the recreationists. More specifically the a step wise multiple linear regression results

show only one positive significant relationship between motivational factor and tourists' behavioural intention i.e. the nature motivational factor. Our results suggest there is a demand for high adventure activities focusing on "nature" themes. Finally analysing whether the different level of adventure tourists' risk perception differ in their response to the behavioural variables we pointed out that a low risk perception seems to be associated to stronger tourists' positive worth of mouth and intention to revisit the park. By showing that the natural environment is identified as the key motivational factor for revisit the park and for a positive word of mouth it is necessary to promote adventure tourism focused on the natural environment. Also we found that tourists who express a low perception are associated to a stronger behavioural intention. Given that a significant number of new adventure tourists visit the park as a result of word of mouth communication managing perceptions is paramount to sustain adventure tourism in the park. The perception of risk is an important component in the tourists' behaviour and should not be overlooked. Risk-based adventure tourism provides bright potentials especially if it's centred on the correct use of natural resources.

References

- [1] Beck, U. (1992). *Risk society: Towards a new modernity* (Vol. 17). Sage.
- [2] Beedie, P., & Hudson, S. (2003). Emergence of mountain-based adventure tourism. *Annals of Tourism Research*, 30(3), 625–643.
- [3] Beerli, A. & Martín, J. D. (2004). Tourists' characteristics and the perceived image of tourist destinations: a quantitative analysis – A case study of Lanzarote, Spain. *Tourism Management*, 25, 623-636.
- [4] Bentley, T. A., & Page, S. J. (2001). Scoping the extent of adventure tourism accidents. *Annals of Tourism Research*, 28(3), 705-726.
- [5] Bradley, J. C., Waliczek, T. M., & Zajicek, M. (1997). Relationship between demographic variables and environmental attitudes of high school students. *Journal of Natural Resources Life Science Education*, 26, 102–104
- [6] Buckley, R. (2010). Communications in adventure tour products: Health and safety in rafting and kayaking. *Annals of Tourism Research*, 37(2), 315-332.
- [7] Buckley, R. (2012). Rush as a key motivation in skilled adventure tourism: Resolving the risk recreation paradox, *Tourism Management*, 33, 961-970.
- [8] Csikszentmihalyi M. (1990). *Flow: The psychology of Optimal Experience*. Harper & Row Publishers: New York.
- [9] Cini, F., Kruger, S., & Ellis, S. (2013). A model of intrinsic and extrinsic motivations on subjective well-being: The experience of overnight visitors to a national park. *Applied Research in Quality of Life*, 8(1), 45-61.
- [10] Ewart, A. W. (1989). *Outdoor adventure pursuits: Foundations, models and theories*. Scottsdale, AZ: Publishing Horizons.
- [11] Fennell, D. A. (1999). *Ecotourism: An introduction*. London: Routledge.
- [12] Fluker, M. R., & Turner, L. W. (2000). Needs, Motivations, and Expectations of a Commercial Whitewater Rafting Experience. *Journal of Travel Research*, 38(4), 380–389.
- [13] Fodness, D. (1994). Measuring Tourist Motivation. *Annals of Tourism Research*, 21 (3): 555-81.
- [14] Gnoth, J.. (1997). Tourism Motivation and Expectation Formation. *Annals of Tourism Research*, 24(2), 283-304.
- [15] Hall, C. (1992). Adventure, sport and health tourism. In B. Weiler & C. M. Hall (Eds.), *Special interest tourism* (pp. 141-158). London: Belhaven.
- [16] Huang, S., & Hsu, C. (2009). Effects of Travel Motivation, Past Experience, Perceived Constraint, and Attitude on Revisit Intention. *Journal of Travel Research*, 48(1), 29–44.
- [17] Kerstetter, D. L., Hou, J. S., & Lin, C. H. (2004). Profiling Taiwanese ecotourists using a behavioral approach. *Tourism management*, 25(4), 491-498.
- [18] Kim, S. S., Lee, C. K., & Klenosky, D. B. (2003). The influence of push and pull factors at Korean national parks. *Tourism Management*, 24(2), 169-180.
- [19] Kutay, K. (1989). The new ethic in adventure travel. *Buzzworm: the environmental journal*, 1(4), 31-36.
- [20] Manfredo, M. J., Driver, B. L., & Tarrant, M. A. (1996). Measuring leisure motivation: A meta-analysis of the recreation experience preference scales. *Journal of Leisure Research*, 28(3), 188–213.
- [21] Maxham, J. (2001). Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions. *Journal of Business Research*, 54, 11–24.
- [22] Muller, T. E., & Cleaver, M. (2000). Targeting the CANZUS baby boomer explorer and adventurer segments. *Journal of Vacation Marketing*, 6(2), 154-169.
- [23] Pelton, R. Y., Aral, C., & Dulles, W. (1997). Fielding's the world's most dangerous places. *Fielding Worldwide*.
- [24] Pizam, A., Neumann, Y., & Reichel, A. (1979). Tourist satisfaction. *Annals of Tourism Research*, 6, 195-197.
- [25] Pomfret, G. (2006). Mountaineering adventure tourists: a conceptual framework for research. *Tourism management*, 27(1), 113-123.

- [26] Prebensen, N. K., Woo, E., Chen, J. S., & Uysal, M. (2013). Motivation and involvement as antecedents of the perceived value of the destination experience. *Journal of Travel Research*, 52(2), 253-264.
- [27] Raj, A. (2004). Tourist behaviour: An introduction. In A. Raj (Ed.), *Tourist behaviour: A psychological perspective*, 3–23. New Delhi: Kaniska.
- [28] Rid, W., Ezeuduji, I. O., & Pröbstl-Haider, U. (2014). Segmentation by motivation for rural tourism activities in The Gambia. *Tourism Management*, 40, 102-116.
- [29] Robbins, S. P. (2003). *Organizational Behavior* (10th ed International edition.). Upper Saddle River, Pearson Education, Prentice Hall.
- [30] Ross, E. I. D., & Iso-Ahola, S. E. (1991). Sightseeing tourists' motivation and satisfaction. *Annals of Tourism Research*, 18, 226–237.
- [31] Rubens, D. (1999). Effort or Performance: Keys to Motivated Learners in the Outdoors. *Horizons* 4, 26–28.
- [32] Schneider, P., & Vogt, C. (2012). Applying the 3M Model of Personality and Motivation to Adventure Travelers. *Journal of Travel Research*, 51(6), 704–716.
- [33] Sung H., Morrison A. & O' Lear J. (1996-97). Definition of adventure-travel: conceptual framework for empirical application from the providers perspective. *Asia Pacific Journal of Tourism and Research* 1(2), 47-67
- [34] Sung, H. Y., Morrison, A. M., & O'Leary, J. T. (2000). Segmenting the adventure travel market by activities: from the North American industry providers' perspective. *Journal of Travel & Tourism Marketing*, 9(4), 1-20.
- [35] Swarbrooke, J., Beard, C., Leckie, S., & Pomfret, G. (2003). *Adventure tourism: The new frontier*. Oxford: Butterworth-Heinemann.
- [36] Tangeland, T., Vennesland, B., & Nybakk, E. (2013). Second-home owners' intention to purchase nature-based tourism activity products—A Norwegian case study. *Tourism Management*, 36, 364-376.
- [37] Um, S., & Crompton, J. (1990). Attitude determinants in tourism destination choice. *Annals of Tourism Research*, 17, 432–448.
- [38] Weaver, D. B. (2001). Of other tourism types. *The encyclopedia of ecotourism*, CABI Publishing, Wallingford, UK.
- [39] Williams, P.A., & Soutar, G. (2005). Close to the “Edge”: Critical Issues for Adventure Tourism Operators, Asia Pacific. *Journal of Tourism Research*, 10(3), 247-6

Corporate Social Responsibility & Sustainability

**How large companies communicate sustainability in an international environment:
a crossroads between grounded information and greenwashing**

Raffaele Campo, raffaele.campo@uniba.it
Fabrizio Baldassarre, fabrizio.baldassarre@uniba.it
University of Bari Aldo Moro, Italy

How large companies communicate sustainability in an international environment: a crossroads between grounded information and greenwashing

Abstract

Sustainability is becoming a widespread topic of discussion also for companies: the aim of this research is to understand how the world largest companies communicate their eventual environmental and social commitment. To achieve this aim researchers have examined sixteen large companies' web sites, considering four sectors, that are Oil and gas operations, Iron and steel, Computer hardware and Food processing, observing what kind of communication tools they use (sustainability reports, certifications, sustainability web sections). Findings highlight a particular attention to sustainability communication but, at the same time, it is also evident that some of those companies are suspected to be unethical: from a marketing point of view greenwashing could be a risky choice for companies' long-term survival while a communication based on concrete and verifiable information can represent a great opportunity for them.

1. Introduction

The word sustainability has become part of the business dictionary during the last decades: it is a tripartite concept, because it includes a social, environmental and economic meaning. Actually its boundaries are wider, considering the definition enunciated by the World Commission on Environment and Development in 1987: sustainable development is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own need", without references to a specific dimension. Because of their impact on society, companies are more and more involved in this process of creation of a development characterized by a more intense attention to environmental and social issues. The heavy dependence from non-renewable energy sources, the importance to safeguard natural resources and the necessity to respect human rights should make companies aware about their impact on communities and, consequently, about their potential survival. On the other hand the business lexicon contemplates also the expression Corporate Social Responsibility, which consider the accountability of an enterprise as the way it has to satisfy the social, environmental and economic expectations by stakeholders, coherently with the corporate strategy, and not simply a series of philanthropic initiatives (Collis, Montgomery, Invernizzi & Molteni, 2007). Obviously a responsible attitude implicates the involvement of the entire business activity and not only of a single part of it, following a path as described also by Nidumolu, Prahalad and Rangaswami (2009): as a matter of fact every department can contribute to achieve a responsibility objective, as exemplified below:

- supply activities: suppliers selection on the basis of ethical prerequisites;
- production: use of renewable energies and reduction of water consumption;
- human resources management: training. health and safety, equal opportunities;
- inbound logistics: reduction of emissions caused by transports;
- outbound logistics: reduction of packaging impact on environment;
- marketing: cause related marketing, communication transparency.

It is clear that a sustainability aim cannot be achieved if all the supply chain is sustainable, so it is not correct to reduce sustainability to a façade attitude because, in this case, this could have deleterious consequences on image and reputation. Technically this phenomenon is called "greenwashing" because it parades, through a precise communication style, a strong sustainability oriented commitment, concealing their negative behaviour. Granted this, in this research sustainability is specifically studied from the point of view of marketing communication, in order to comprehend how some large companies communicate sustainability and how, in case, the same companies are accused to put into practice unsustainable behaviours and, of course, to be untruthful.

2. Theoretical background: a literature review

Through sustainability a company integrates its economic objectives with social ones: however it is difficult to think that responsible initiatives remain limited to their boundaries and, from this perspective, they can become not only a moral duty but also a tool for marketers, insomuch that Kumar, Rahman, Kazmi and Goyal (2012) defined ecology as a new paradigm in marketing strategy while Abdul Rashid, Abdul Rahman and Annuar Khalid (2014) highlighted that environmental initiatives can have a role in marketing strategies. Kotler and Lee (2008) underlined that responsible initiatives can have important positive consequences in terms of sales growth, market share, image, employees' motivations, decrease of operating costs, attractiveness for investors and these elements can be considered sufficient to communicate transparently sustainability. The importance of sustainability in marketing communication is confirmed by the existence of a typology of marketing named *Sustainable Marketing* and one specifically dedicated to its environmental dimension, that is so called *Green Marketing* (Sarkar, 2012; Grant, 2009; Kilbourne, 1998). Polonski (1994) specified that it “*consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment*”, a definition which add respect for the environment to the classical objective of marketing, that is the satisfaction of wants and needs; moreover Menon and Menon (1997) underline that Green Marketing represents a part of the whole corporate strategy.

It is possible to distinguish four strategies linked to the practice of Green Marketing: Orsato (2006) highlighted that two strategies (Eco-Efficiency and Environmental Cost Leadership) are connected to a lowering of costs while the other two (Beyond Compliance Leadership and Eco-Branding) refers to a generic differentiation strategy. These are the main features:

- Eco-efficiency: the aim is to increase the productivity and to decrease costs and, at the same time, the environmental impact;
- Beyond Compliance Leadership: it is important to improve the organizational process but also to make customers know what are the enterprise efforts through certifications, business codes and environmental unprofitable investments;
- Eco-Branding: this strategy starts from the premise that consumers need to understand what are the benefits deriving from the purchase;
- Environmental Cost Leadership: the goal is to blend lower costs with a lower impact on environment.

According to Rex and Baumann (2007) Green Marketing can be developed also inspiring to conventional marketing considering also a larger target and not only so called green consumers and applying a more incisive promotion of green products, going beyond the traditional ecolabels while Liu, Kastiratne and Moizer (2012) underlined the necessity to integrate Green Marketing and Sustainable Supply Chain Management, focusing the attention on six dimensions, that are product, promotion, planning, process, people and project. Some scholars highlight that Green marketing can be applied considering it as a part of a more overall strategy: for example Easterling, Kenworthy, Nemzoff and College (1996) focused on green advertising, which can be put into practice only in the case companies have a general environmental strategy while Fengwen and Yuhua (2003) described an environment-oriented marketing as a step of a general green supply chain, which consists in five phases, that are Green Designing, Green Production, Green Package, Green Marketing and Green Recycling.

Obviously a serious marketing activity, and Sustainable marketing is not an exception, needs an effective communication system: from this point of view sustainability reports and certifications could represent important tools to promote ecological and social initiatives. Sustainability reports are documents companies draft to provide qualitative and quantitative information in order to highlight and integrate their economic, environmental and social activities (Daub, 2007): the most important world organization which promotes reporting is the Global Reporting Initiative (GRI), that has formulated a series of reporting guidelines; transparency is defined by the GRI as an imperative and this shows, one more time, how much important is a communication based on real information, a prerequisite to implement a Sustainable marketing strategy. Kolk (2010) specified which are the most relevant reasons for reporting and for non reporting, as summarized in the following table (tab.1).

TABLE 1: REASONS FOR REPORTING AND FOR NON REPORTING BY KOLK (2010)

Reasons for reporting

Enhanced ability to track progress against specific targets
 Facilitating the implementation of the environmental strategy
 Greater awareness of broad environmental issues throughout the organisation
 Ability to clearly convey the corporate message internally and externally
 Improved all-round credibility from greater transparency
 Ability to communicate efforts and standards
 License to operate and campaign
 Reputational benefits, cost savings identification, increased efficiency, enhanced business development opportunities and enhanced staff morale

Reasons for non-reporting

Doubts about the advantages it would bring to the organisation
 Competitors are neither publishing reports
 Customers (and the general public) are not interested in it, it will not increase sales
 The company already has a good reputation for its environmental performance
 There are many other ways of communicating about environmental issues
 It is too expensive
 It is difficult to gather consistent data from all operations and to select correct indicators
 It could damage the reputation of the company, have legal implications or wake up 'sleeping dogs' (such as environmental organisations)

This table points out, in particular, the role of reputation: reporting, according to Kolk, can have a positive impact on companies' image, creating a chain reaction with positive consequences in terms of cost savings, new opportunities and improved work conditions; on the other hand a superficial and a non transparent report could activate a boomerang effect with negative consequences on companies' reputation: this concept reinforces one more time the necessity to apply a communication style based on truth.

Certifications represent another tool to communicate with stakeholders, in particular the international standard ISO 14001 is a recognized document to show a company's environmental management system, while OHSAS (acronym of Occupational Health and Safety Assessment Series) 18001 groups a series of criteria in order to safeguard a healthy and safe work condition. Some studies have shown that ISO 14001 have a positive impact on environmental performances (Boiral & Henri, 2012; Melnyk, Sroufe, & Calantone, 2003) while its positive influence on profits have been studied by Davis (1991) and Summers Raines (2002). Studies about the role of OHSAS 18001 have been carried out by Abad, Lafuente, and Vilajosana (2013) who specified its importance in the achievement of safety as well as Lo, Pagell, Fan, Wiengarten and Yeung (2014) demonstrated a link between it and an improvement in terms of safety, labor productivity and profitability.

Social sustainability has been analyzed also considering companies' ethical choices, in particular by De Pelsmacker Dryesen and Rayp (2005) who examined the consequences of social activities on consumers' choices, pointing out that they can express their ethical certainties in two ways: the first one consists on purchasing product with specific positive features, the second one is based on boycott of determined enterprises because of their negative conduct; Boulstridge and Carrigan (2000) stressed that the ethical factor is considered secondary for most of people, because price, quality, convenience and brand influence more deeply their decisions; Carrigan and Atalla (2001) studied a young target, formed by 18-25 aged respondents, organized in two focus groups: they showed that an ethical conduct does not affect young consumers behavior probably because fashion and brands play a more important role in their decisions. Singh, Iglesias and Batista-Foguet (2012) studied the relationship among perceived ethicality, brand trust, brand affect and brand loyalty on a sample of 4.027 Spanish consumers: results highlighted that there is a positive association between perceived ethicality, brand trust and brand affect and these latter have, in turn, a positive relationship with brand loyalty; Singhapakdi, Vitell, Rao and Kurtz (1999), on the other hand, showed that there is a difference between the ethical decision-making process of marketers and those of consumers: they found that consumers tend to be more idealistic and less relativistic compared to marketing professionals and, according to them, a reduction of this gap could be a source of competitive advantage for those marketers who will be able to understand better consumers' ethical requests.

3. The empirical analysis

3.1 Methodology

This research has the aim to highlight how large companies communicate their sustainability initiatives and whether, in case, their conduct is considered negative in spite of what they declare, putting into practice a greenwashing action. For this purpose researchers have analyzed sixteen large companies' websites, in order to verify the presence of:

- sustainability report;
- references to ISO 14001;
- references to OHSAS 18001;
- a general sustainability web section.

This study has been carried out through a content analysis (Berelson, 1952; Kassirjian, 1977).

The choice of companies started considering the word largest companies ranking published by Forbes.com: researchers have focused the attention on four sectors, two in behalf of b2b enterprises and two on behalf of b2c ones. The following table describes the sample of this study.

TABLE 2: SELECTED COMPANIES

B2B Companies	B2C Companies
<i>Sector: Oil and gas operations</i>	<i>Sector: Computer Hardware</i>
ExxonMobil	Apple
Petrochina	Hewlett-Packard
Royal Dutch Shell	Lenovo Group
BP	Quanta Computer
<i>Sector: Iron and Steel</i>	<i>Sector: Food Processing</i>
Nippon Steel	Nestlé
Posco	Unilever
JFE	Mondelez International
Vale	Danone

All these companies occupy the first four places in their respective sector ranking.

3.2 Findings

Findings highlight that the largest companies tend to give to sustainability communication a certain importance, insomuch as none of them is indifferent to this. Data collection is summarized in the following table.

TABLE 3: FINDINGS

Oil and gas operations				
<i>Company</i>	<i>Sustainability Report</i>	<i>Sustainability Web Section</i>	<i>Iso 14001</i>	<i>Ohsas 18001</i>

ExxonMobil	x	x	x	x
Petrochina	x	x		
Royal Dutch Shell	x	x	x	
BP	x	x	x	x
Iron and Steel				
<i>Company</i>	<i>Sustainability Report</i>	<i>Sustainability Web Section</i>	<i>Iso 14001</i>	<i>Ohsas 18001</i>
Nippon Steel	x	x	x	x
Posco	x	x	x	x
JFE	x	x	x	
Vale	x	x	x	x
Computer Hardware				
<i>Company</i>	<i>Sustainability Report</i>	<i>Sustainability Web Section</i>	<i>Iso 14001</i>	<i>Ohsas 18001</i>
Apple	x	x	x	
Hewlett-Packard	x	x	x	x
Lenovo Group	x	x	x	x
Quanta Computer	x	x	x	x
Food Processing				
<i>Company</i>	<i>Sustainability Report</i>	<i>Sustainability Web Section</i>	<i>Iso 14001</i>	<i>Ohsas 18001</i>
Nestlè	x	x	x	x
Unilever	x	x	x	x
Mondelez International		x	x	x
Danone	x	x	x	

As illustrated, all the companies use most of these tools in order to communicate with stakeholders, in particular it is important to observe the presence of a sustainability section in every website. It is interesting, furthermore, to note that sustainability reports are widespread documents and, as a matter of fact, they are published by all the analyzed companies except Mondelez International: this information confirms the growing tendency to report sustainability as observed by Kolk (2004). Another feature to highlight is relative to the report's name, which is sometimes different from a company to another: for example ExxonMobil names it "Corporate Citizenship Report", BP "Sustainability Review", Unilever "Sustainable Living Plan"; Apple, moreover, drafts different "Environmental reports" for every product and a specific report called "Supplier Responsibility Report" analyzing the sustainability issue from another perspective.

Sustainability web sections are full of data and information. ExxonMobil distinguishes six areas of analysis, that are safety in the workplace, reduction of environmental consequences, climate changes, human rights, corporate governance and economic development; similarly the other oil companies concentrate on their environmental efforts and, in particular, BP makes reference to its commitment to recover the area close to Gulf of Mexico, damaged by an oil spill in 2010 for which this company has been accused. Nippon Steel highlights its environmental policies, in particular underlining its low carbon dioxide emissions and the development of eco-products; Posco, among the various information about green and social responsibility, makes reference to its recognition as an Dow Jones Excellent Sustainability Corporation. As the other iron and steel companies also JFE

and Vale focuses on environment aspects and in particular the last one allows stakeholders to evaluate its sustainability report through a questionnaire. Apple dedicates several web pages to this issue, in particular with a focus on environment: durability and recycling are two attributes that this company thinks to be essential for its products. Effectively one of the most relevant problem, nowadays, from an ecological point of view, is the duration of technological products, probably characterized by a certain level of innovation but also by a short lifetime, which means an incredible resources waste. Another communication tool is the creation of a direct contact with the customer, as Hewlett-Packard do providing a space where it is possible to submit a question relative to its environmental policies: moreover this company includes in its supply a series of environmental oriented products, proposed in order to convince consumers to do an ecological choice. Lenovo Group publishes several pages about sustainability and also in this case it highlights the attention to the long lasting characteristic of its products and the respect of human rights; Quanta's sustainability, moreover, includes some initiatives such as publicity programs and planting of trees. Food companies represent their information in reference to different sustainability dimensions, adding also data about nutrition issues and environmental problems caused by food packaging.

Regarding the certifications it is evident that the environmental ones are more widespread and this could be mean a greater sensitivity to green aspects: most of the examined companies make references to ISO 14001, sometimes also showing relative certifications; Ohsas 18001 is quite widespread but less in oil and gas sector.

These findings show that communication of sustainability is perceived as fundamental by the largest companies; all of them publish a mass of information, not limiting to give hasty data but focusing on various aspects which can be interesting for different stakeholders: from this point of view the reference target can be considered the real discriminating factor between b2b and b2c companies.

4. Greenwashing issues

Is this communication real? It is clear, as shown above, that the largest companies want to communicate their social responsibility initiatives but this does not mean automatically that what they declare is true. As a matter of fact, a lot of large companies are accused of being irresponsible, in spite of what they report: this could signify that sustainability reports rather than other kind of information could be considered limited tool. The question is: are companies conscious about the impact of their communication style? Nowadays there is a greater awareness about companies' role in society and an irresponsible conduct could have negative consequences, for example it could damage both suppliers' and consumers' relationships. Anyway, even if sustainability is becoming a topic of discussion, therefore there is more attention on it, Grunert, Hieke and Wills (2014) found that consumers in general are aware about sustainability but they do not pay much attention to information included on labels and, furthermore, they link the concept of sustainability only to the environmental dimension. A communication based on falseness can be noxious from a marketing point of view because it can contribute to develop a bad reputation, which can cause a drop of customers or even a boycott (Glazer, Kanninen and Poutvaara, 2010). Many times the largest companies are suspected of being irresponsible and, among those examined in this research paper, some of them are an example, as shown below.

Shell. This company has been accused of horrible actions to the detriment of a population living in the delta of the river Niger, the Ogoni. During the 50's it started to exploit its oilfields with negative consequences for this population, both from a social and an environmental point of view, and this caused a rebellion by the side of this population. Against Shell, specifically in the 90's, there were accusations of tortures and murders with the complicity of the military Nigerian government towards protest movement (MOSOP) which demanded rights in reference to social, environmental and economic dimensions. In spite of the International mobilization, in 1995 Ken Saro Wiwa (MOSOP spokesperson) and other Ogoni were hanged by the regime, creating indignation all over the world, and Shell was charged with being participating, through its financings and weapons to the government (Boele, Fabig and Wheeler, 2001). This was a terrible blow for Shell, tarnished by the accusation of human rights violation and environmental destruction: its responsibility has been demonstrated and, as a consequence, it has been convicted to compensate the Ogoni for their shameful conduct.

BP. In 2010 this company came to the fore because of an enormous environmental disaster. On April of that year there was an explosion on the drilling rig Deepwater Horizon, leased by BP. The consequences were very serious in terms of human lives (11 men died) and environmental catastrophe: huge quantity of oil were poured into the Gulf of Mexico, with relevant damages on sea life (Perrons, 2013; Forrest Harlow, Brantley and Martin Harlow, 2011): as a matter of fact, as reported by Liu, Liu, Gardner, Shank and Ostrom (2014) 4.9 million barrels of oil and 2 million gallons of chemical dispersants were roughly released in the Gulf from April to July 2010 and, for this reason, this British company was convicted to pay a large fine.

ExxonMobil: Similarly to the disaster caused by BP, Exxon Valdez, an ExxonMobil oil tanker, released a large quantity of oil in the vicinity of Alaska in 1989 after an oil spill. The consequences were terrible for the ecosystem (Peterson, 2001) and also in this case this oil giant has been obliged to pay a large fine.

Vale. On the web the “International Movement of People affected by Vale” has published so-called “The Vale 2012 Unsustainability Report” in order to expose data and information relative to negative consequences deriving from this mining Brazilian company’s activity. This Movement imputes Vale to be unsustainable, first of all explaining that only a minimal part of its enormous profits are used for Corporate Social Responsibility activities and that it was selected in 2012 as the world worst company in terms of environmental, social and labour related issues. From the environmental perspective Vale has been blamed to damage water sources (for example in Brazil and Argentina) and to have increased their nitrogen oxide and sulphur oxides emissions: in Canada it is involved in the biggest public civil suit for environmental disaster in the history of this North-American country; from a social point of view there are accusations of violations of human rights, disrespect for workers and damages for local communities, for example in Mozambique.

Nestlé. This Swiss food company has often been accused of unethical conduct, in particular considering the case of infant formula in Third World countries (Boyd, 2012) causing boycott by some consumers groups (Brinkmann, 2004): this Swiss multinational corporation was imputed to be responsible of children sickness, caused by baby formula prepared in unhealthy hygienical conditions exploiting the lack of knowledge by local communities and passing off infant formula as superior to breast milk (Brady, 2010).

These examples represent emblematic cases because they highlight that what is communicated could not coincide with the real concrete activities and probably the largest is the company, the largest are the possibility of unsustainable activities to be known, damaging enterprises both from a moral and an economic point of view. The question is: will sustainable marketing be a decisive factor for a successful company? Probably the growing sensitivity and awareness on environmental and social issues will play a more decisive role and this will signify that transparency will be essential. An unsustainable conduct could impact very negatively both for b2c and b2b companies and, consequently, communication is not sufficient in a marketing perspective: communicating good initiatives could be useless if companies conceal the bad ones, because they will emerge in future. Probably it is necessary to pass, using a terminology used by Grant (2009), from a simply “green” attitude to a “greenest” one, that means passing from a simply communication to an innovation-oriented strategy, which will consist in conceiving sustainability as a normal lifestyle and business model. It is clear that, from this point of view, sustainability has to be interpreted as an opportunity and not as a burden. As a matter of fact a concrete attention to environmental and social issues can not only contribute to build a better reputation but can be a competitive advantage source as also stated by Porter and Var Der Linde (1995): benefits of sustainability choices, therefore, are not limited only to an image level but are actually visible on a competitive side and on a financial one; in other words greenwashing is a useless attitude that cannot guarantee a company’s long-term survival.

5. Conclusions and limits

This research has highlighted that sustainability has become a widespread topic of discussion and the largest companies have understood that they have to reckon on it. From a pure communicational point of view it is evident that these companies use various kind of tools, starting from sustainability reports, a more and more used document,

to environmental and social certifications. Certainly sustainability communication is not focused on a single dimension but it involves different contents such as energy savings, water, emissions reduction, workers' health and safety, respect for local communities, prohibition of child labour and respect of human rights. Possession of certifications is evidently considered an important factor because they are a communication tool but also, at the same time, a prerequisite for business relationships: anyway, in this case, environmental ISO 14001 is more widespread than OHSAS 18001. On the other hand it is essential to consider that communication is not a guarantee of truth and this means that it can be also based on appearance: it is fundamental, in this sense, to comprehend which are the consequences from a marketing point of view. Certainly the largest companies are often suspected to be irresponsible, in particular considering some sectors such as those of oil and energy, therefore it is not useful to declare falsities, also because their possible negative conduct can easily emerge; on the contrary a coincidence between what is communicated and a real commitment can have benefits in a long term perspective.

As shown above some companies have been accused of an unethical behaviour and, observing their websites, it is evident that they do not want to be considered negatively because they are aware of some possible effects on their economies: in other terms they are conscious that a bad reputation could represent a risk for them. From this point of view greenwashing embodies a non forward looking attitude, dangerous for companies which decide to apply it: it is a synonymous of lack of vision by companies and a company without a vision is destined to the decline, in particular today, when sustainability is becoming a necessity that cannot be recognized only by more sensitive subjects. The increasing attention to this subject could play an important role in future in order to discriminate praiseworthy companies from those irresponsible: marketing communication is absolutely useless if it does not reflect a real and concrete conduct. A forward looking company does not have to have doubts in choosing what part of the crossroads they have to go through: rejecting greenwashing and make sustainability a concrete model to follow.

This research has some limits: first of all this is an explorative study so it has to be deepened; moreover the analyzed sample is limited so it is necessary to enlarge it, also considering other sectors' companies because, in this case, findings could be different. For future research it could be interesting to analyze the impact of what is communicated on consumers choices in order to verify if sustainability is already an essential factor.

References¹

- [1] Abad, J., Lafuente, E., Vilajosana, J. (2013). An assessment of the OHSAS 18001 certification process: Objective drivers and consequences on safety performance and labour productivity. *Safety Science*, 60, 47-56.
- [2] Abdul Rashid, N.R., Abdul Rahman, N.I., & Annuar Khalid, S. (2014). Environmental Corporate Social Responsibility (ECSR) as a Strategic Marketing Initiatives. *Procedia - Social and Behavioral Sciences*, 130, 499-508.
- [3] Berelson, B. (1952). *Content analysis in communication research*. New York: Free Press.
- [4] Boele, R., Fabig, H., & Wheeler, D. (2001). Shell, Nigeria and the Ogoni. A study in unsustainable development: I. The story of Shell, Nigeria and the Ogoni people – environment, economy, relationships: conflict and prospects for resolution. *Sustainable Development*, 9, 74-86.
- [5] Boiral, O., Henri, J.F. (2012). Modelling the impact of ISO 14001 on environmental performance: a comparative approach. *Journal of Environmental Management*, 99, 84–97.
- [6] Boulstridge, E., & Carrigan, M. (2000). Do consumers really care about corporate responsibility? Highlighting the attitude-behavior gap. *Journal of Communication Management*, 4, 355-368.
- [7] Boyd, C. (2012). The Nestlé infant formula controversy and a strange web of subsequent business scandals. *Journal of Business Ethics*, 106, 283-293.
- [8] Brady, D. (2010). *Essentials of International Marketing*. New York: M.E. Sharpe.
- [9] Brinkmann, J. (2004). Looking at consumer behavior in a moral perspective. *Journal of Business Ethics*, 51, 129-141.
- [10] Carrigan, M., & Attalla, A. (2001). The myth of the ethical consumer - do ethics matter in purchase behaviour? *Journal of Consumer Marketing*, 18, 560-577.
- [11] Collis, D.J., Montgomery, C.A., Invernizzi, G., & Molteni, M. (2007). *Corporate Strategy. Creare valore nell'impresa multibusiness*. Milan: McGraw Hill.
- [12] Daub, C.H. (2007). Assessing the quality of sustainability reporting: an alternative methodological approach. *Journal of Cleaner Production*, 15(1), 75-85.
- [13] Davis, J. (1991). A blueprint for green marketing. *The Journal of Business Strategy*, 12, 14-17.
- [14] De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do consumers care about ethics? Willingness to pay for fair-trade coffee. *The Journal of Consumer Affairs*, 39, 363-386.
- [15] Easterling, D., Kenworthy, A., Nemzoff, R., & College, B. (1996). The Greening of advertising: A twenty-five year look at environmental advertising. *Journal of Marketing Theory and Practice*, 4, 20–33.

¹¹ Contact authors for the complete list of references at raffaele.campo@uniba.it or at fabrizio.baldassarre@uniba.it.

**Is environmental sustainability a strategic driver?
An explorative investigation in the Italian mining sector**

*Francesca Ceruti, francesca.ceruti@unimib.it,
Angelo Di Gregorio, angelo.digregorio@unimib.it
University of Milano-Bicocca, Italy*

Is environmental sustainability a strategic driver? An explorative investigation in the Italian mining sector

Abstract

Raw materials have a considerable weight for the development of countries but they are also strongly linked to environmental defacement. In fact, mining activities are often related to all those diseconomies on a territory and can create conflictual situations among the population in terms of consensus and acceptability. Although lots of studies investigate the triple bottom line theory and how sustainability can be a strategic asset to improve firms' performance, in literature nobody focused on mining industry.

This work, with an exploratory cluster analysis based on a CAWI questionnaire, aims to understand whether Italian mining enterprises see environmental sustainability as a key asset and if it has got a corresponding reflection on firms' performance. Evidences point out that for some respondents the adoption of environmental sustainability policies is mainly based on institutional goals rather than on strategic ones. However, there are some enterprises that without a pure monetary return adopt environmental sustainability policies to reinforce their reputation.

Literature review

Since the Brundtland Commission Report in 1987, the sustainability issue has been widely debated by academics from many business disciplines, including management, marketing and operations. Also managers have accepted sustainability as a precondition for doing business (Hedstrom, Poltorzycki and Stroh, 1998, Holliday, 2001). A lot of firms appoint corporate sustainability officers, publish sustainability reports (SustainAbility, 2000) and incorporate sustainability into their communication strategies.

The triple bottom line theory

From the point of view of firms' perspective, sustainability means meeting the needs of their direct and indirect stakeholders without compromising their ability to meet the needs of future stakeholders (Dyllick and Hockerts, 2002). Thus, enterprises have to integrate the economic, social and environmental aspects in a triple bottom line. This concept, developed by Elkington (1998), considers and balances economic, environmental and social issues from a micro-economic point of view simultaneously. According to the triple bottom line theory, companies should conduct their business in a way that respects both environment and society, while being profitable (Elkington, 1998; Hart and Milstein, 2003, Savitz and Weber, 2006).

The triple bottom line theory has also received a strong endorsement from the World Business Council for Sustainable Development, a coalition of 160 international enterprises (Vandenberg 2002). Government agencies around the world and at all levels have been required to implement the triple bottom line (Vanclay 2004; Wight 2007).

However, what is sometimes not so clear is the measurement of these three dimensions. Some scholars refers economic sustainability to plants regarding production or manufacturing costs (Cruz and Wakolbinger, 2008), others consider economically sustainable those companies that can "guarantee at any time a sufficient cashflow to ensure liquidity while producing a persistent return to their shareholder" (Dyllick and Hockerts, 2002: 133).

Considering the environmental aspect of sustainability, a large body of literature relates it to corporate environmental policies. Among these, González-Benito and González-Benito (2005) and Bansal and Roth (2000) studied actions of businesses to mitigate their negative influence on the environment and the motivations behind them (i.e., competitiveness, legitimation, and ecological responsibility). Environmental sustainability refers to the use of energy and other resources and the footprint that firms leave behind as a result of their operations. In this way, environmental sustainability is measured by indicators that are related to waste and pollution reduction, energy efficiency, emissions reduction, frequency of environmental accidents and so on.

Social sustainability shifts the focus to both internal communities and external ones (Pullman, Maloni and Carter, 2009). Social sustainable companies add value to the community in which they operate and influence stakeholders in such a way that they can understand motivations and can broadly agree with the value system of the firm. Indeed, enterprises that invest in Corporate Social Responsibility try to enhance their social reputation (Fombrun, 2005). Another

relevant theory – corporate citizenship – present the social involvement of companies in a more holistic way, which is conceptualized as “the role of the corporation in administering citizenship rights for individuals” (Matten and Crane, 2005, p. 173). Thus, to measure social sustainability indicators including social cost, level of capital stock, structure for self-renewal, fairly distribution of resources and property rights can be used (Gladwin, 1995).

Environmental sustainability and firm performance

The literature on sustainability provides limited answers to the reason why certain firms do adopt sustainability management practices while others do not and under which circumstances firms can realize competitive advantage by adopting sustainable practices (Delmas and Toffel, 2004; Etzion, 2007; Rivera-Camino, 2007).

TABLE 1: PAST RESEARCH ABOUT THE IMPACT OF ENVIRONMENTAL SUSTAINABILITY ON FIRM'S PERFORMANCE

Autors	Performance variables	Main findings
Cohen, Fenn and Naimon (1995)	ROA, ROE, Total Return or Common Shareholders	The group of low-polluting firms has better economic performances.
Hart and Ahuja (1996)	ROA, ROE, ROS	Pollution prevention activities have a positive influence on financial performance within 1–2 years.
Russo and Fouts (1997)	ROA	Positive and significant impact of environmental performance on ROA.
Judge and Douglas (1998)	ROI, Earnings Growth, Sales Growth, Market Share Change	Positive and significant impact of environmental issue with the financial performance.
Edwards (1998)	Return on capital employed (ROCE), ROE	Environmental high-performing firms perform better (not always at a significant level).
King and Lenox (2002)	ROA, Tobin's q	Lower emissions are significantly associated with higher financial performance. ROA and Tobin's q have a significant and positive relationship with waste prevention.
Wagner, Van Phu, Azomahou and Wehrmeyer (2002)	ROS, ROE, ROCE	Negative and significant effect of environmental performance on ROCE. No evidence of significant impact of any economic performance variable on environmental performance.
Gonzalez-Benito and Gonzalez-Benito (2005)	ROA	Environmental management can bring about competitive opportunities for companies, although some environmental practices produce negative effects.
Wagner (2005)	ROCE, ROE, ROS	There is a negative relationship between environmental performance and financial performance.
Aragon-Correa and Rubio-Lopez (2007)	ROI, ROE	Environmental progress is not related to financial performance.
Montabon, Sroufe and Narasimhan (2007)	ROI, Sales Growth, Product Innovation, Process Innovation	There are significant and positive relationships between environmental management practices and measures of performance.

However, numerous researchers have investigated the relationship between efforts made on sustainability by a firm and their effects on its performance. On this topic there is no alignment. On one hand, some researches find a negative correlation between bad environmental performance and the intangible asset value of firm (Cordeiro and Sarkis, 1997; Gilley, Worrell and El-Jelly, 2000; Konar and Cohen, 2001, Link, Naveh, 2006).

On the other hand, some studies show a positive impact of environmental sustainability on firms' performance (Hart and Ahuja, 1996; Klassen and McLaughlin, 1996; Molina-Azorin, Claver-Cortés, Lopez-Gamero and Tari, 2009, Jacobs, Singhal and Subramanian, 2010). Russo and Fouts (1997) reveal that firms with high environmental performance enjoy higher profitability, higher return on assets ratio. Moreover, Bansal and Clelland (2004) find a negative correlation between environmental legitimacy and financial risk. Firms with high environmental legitimacy – for examples firms that meet stakeholders' expectations for corporate environmental performance – show less unsystematic risk compared

to firms with low environmental legitimacy. In addition, their study points out that the risk component could decrease if each enterprise expressed publicly its environmental commitment, especially for those firms that operate in industries with high environmental impact (like mining industries).

Regarding the performance variables, the researches mainly use financial performance such as ROA, ROE, ROS and stock price. Table 1 shows the main studies that have analyzed the impact of the environment on firm performance with accounting performance ratios.

The mining sector

It is generally agreed that the mining sector comprises only resources that have economic and symbolic values. These resources are typically oil, coal, natural gas, gold and precious metals. However, in mining industry there are also activities related to the extraction from quarries and mines of non-energy commodities like sand, clay, ornamental and building stones.

Despite their low unitary economic value, these raw materials are crucial not only for traditional industries (e.g. construction industry, cosmetics, animal feed), but also for the manufacture of the new and innovative products that are required by our modern society (e.g. batteries for electric cars, photovoltaic systems and devices for wind turbines). Thus, the supply of raw materials is increasingly under pressure. This topic is so strategic that the European Commission has proposed a European Innovation Partnership on raw materials (COM (2012) 82 final)¹. The Partnership is focused on non-energy and non-agricultural raw materials and represent vital inputs for innovative technologies and environment-friendly applications².

As we saw, raw materials have a considerable weight for the development of countries but they are also strongly linked to environmental defacement. For this reason, mining activities are very often related to all those diseconomies on a territory and can create conflictual situations among the population in terms of consensus and acceptability. In this context, it is clear that taking care of environmental issues means for mining enterprises encourage the acceptance of their activities by the community as well as strengthen their corporate reputation.

Nevertheless, the mining industry is not always perceived as important in everyday life and, being indeed confined only to negative externalities like dust, noise, impact on environment. In other words, mining activities are very often related to all those diseconomies on the territory that can create conflictual situations among the population and problems of consensus and acceptability. In fact, the mining industry has citizens as a key stakeholder, which can play an important role in shaping sustainability actions of firms. The characteristics and environmental attitudes of communities where firms operate have an impact on environmental performance (Kassinis & Vafeas, 2006), while pressures by external stakeholders can even affect environmental policy decisions about global standardization in multinational companies (Christmann, 2004). In this context, mining firms cannot be successful in the long term if they consistently disregard the interests of their key stakeholders.

Methodology

As said before, this research aims to understand whether Italian mining enterprises see environmental sustainability as a key asset and how they include it in their strategies.

To do this, in the period 17th October to 14th December 2012 a questionnaire was distributed to 658 Italian enterprises. The enterprises have been identified with a non-probability sampling for timeliness and convenience reasons (Troilo, Molteni, 2003). The data were collected with CAWI – Computer Aided Web Interview – method, together with phone recall and individual telephone tutorship. The universe although represents 35.1% of all active enterprises in the mining industry, it represents 87.11% of national turnover¹.

¹¹¹ COM(2012) 82 final, 29th February 2012 – “Making Raw Materials Available for Europe’s Future Wellbeing. Proposal for a European Innovation Partnership on Raw Materials”.

² For further information see <https://ec.europa.eu/eip/raw-materials/en>

The questionnaire included eight sections with specific topics and questions, all related to the theme of competitiveness. In this paper we consider only the section about environmental sustainability.

The sample is composed by 80 enterprises with a redemption rate of 12.2%. This percentage reached 19.8% including also partially filled questionnaire.

The collected data were processed in an aggregated way, in order to maintain the privacy of the respondents.

As for the turnover, the respondents are principally micro and small enterprises: 54% have 2 to 10 mil. euro turnover and 24% have up to 2 mil. euro turnover. Medium enterprises are 13%, while the big ones are 6%. Three enterprises did not declare their turnover.

Almost half of the sample (49%) have 11 to 50 employees, 21% have up to 10 employees, while only 15% declared to have 51 to 250 employees and only 4% have more than 250 employees. This demonstrates that in Italy the mining industry is mainly characterized by micro and small firms.

A two-stage cluster analysis was carried out. First, a hierarchical clustering method was applied in order to determine the number of strategic groups. Ward's method, which minimizes the mean square distance between the center of a cluster and each member, was chosen because its algorithm provides maximum between-group variance and minimum within-group variance (Averred, 1974). Between the two procedures recommended by Aldenderfer and Blashfield (1984) that can be used to determine the number of clusters to retain, we graphed the number of clusters by the proximity coefficients and inspected the jump in values of the proximity coefficients. Subsequently, a non-hierarchical cluster served to place the firms in different groups. K-means cluster analysis was used to group enterprises on the basis of similarity in their scores on the adoption of environmental sustainability as a strategic driver.

Finally, to give a cluster connotation, each group is described by demographic features, such as revenues (*Source: AIDA – Bureau Van Dijk*), average life, number of employees, diplomas acquired by staff, raw material extracted), strategic choices about sustainability and performance ratios.

Empirical results

In general terms, the respondents decide to undertake environmental sustainability policies in order to comply with institutional goals (4.25 of a 5-point Likert scale), followed by image and reputation strengthening (average 3.8) and making the brand recognizable (average 3.40). On the contrary, customers' requests (average 2.57), ethical considerations (average 3.12) and entry into market niche (average 3.13) do not seem to be taken into great account.

Among the benefits, the chance to make new eco-friendly production processes (average 3.48) and to differentiate the firm over its competitors (average 3.47) are recognized. Lower effects are associated with purely economic aspects in terms of costs reduction (average 2.61) and turnover increase (average 2.86).

Referring to how sustainability is pursued, the majority of enterprises strengthen their R&D activities and works with consulting agencies. It is also interesting to note that few firms buy patents from third parties – being this choice quite expensive - or work with environmental organizations or NGOs.

Moreover, results show that environmental sustainability process is overall managed by the entrepreneur (61.5%).

In short, evidences point out that for the majority of respondents the adoption of environmental sustainability policies is mainly based on institutional goals rather than on strategic ones. Although these policies have not a pure monetary return, they are considered as a driver to differentiate the firm over its competitors in terms of image and reputation.

The cluster analysis was designed to generate different groups that minimize within-cluster variance and maximize between-cluster variance. From it, we obtained five different groups that all together include 59 firms that have successfully completed all the questions about sustainability. Each cluster can be described as follows.

Cluster 1 – Consolidated firms

The first cluster consists of 15 medium-size enterprises, mainly extracting building stones, marlstone, limestone and chalk (33.3%). The majority of the enterprises has from 10 to 49 employees with a compulsory education (on average 62%). These firms registered the highest level of turnover (average: 12,812 thousand Euro) and show a 35 years of business experience.

Their approach towards environmental sustainability is consolidated. Although most of the enterprises have started these policies over the past five years, the 33.3% of the firms of this group implements them for over 10 years.

Environmental sustainability is applied both to the product, such as the recovery of materials from non-hazardous waste (3 firms) or the increase the recyclability of the product (5 firms), and to the manufacturing process with the reduction of production waste (9 firms) and air pollutant emissions (10 firms).

Investments are steadily increasing and correspond to more than 5% of annual turnover. The source of funding is mostly internal to the company. In fact, only 20% of the cluster's respondents were able to count on public funding.

The consolidated firms show the best performance indicators, with an annual profit of over 1 million Euro, ROI equal to 4.8% and ROS equal to 5.6%. This aspect points out that the economic efforts incurred in the adoption of environmental policies build a competitive advantage.

Cluster 2 – Adaptive firms

The second cluster consists of 10 micro-small sized enterprises that mine gravel, sand, clay and kaolin. Although the composition in terms of employees is heterogeneous, 50% of the enterprises have from 10 to 49 employees with a compulsory education (on average 68%). The small size (average of 4,239 thousand Euro) is a hallmark of these enterprises that have also the most seniority on the market (57 years of business experience).

Environmental sustainability policies of the 10 firms belonging to this cluster appear to be quite marginal. These firms have started environmental activities over the last 2-5 years with investments that range between 0.1% and 0.5% of turnover. Although their investments are constant, they are the lowest ones if compared to all other clusters. Like in the first group, the firms of this cluster have not benefited from public funding (90%).

The activities they carry out are mainly related to the production process in terms of the reduction of air pollutant emissions (80%) and the reuse of materials through waste recycling (70%). These actions have also an impact on the product using raw materials that are obtained from non-hazardous waste (50%) and secondary raw materials substitution (40%).

The adaptive firms show good performance ratios. In particular, they record profits and have a return on equity equal to 1.3%, the highest percentage among clusters.

Cluster 3 – Proactive firms

The 4 firms in the third cluster are the youngest (only 22 years of business experience) and the smallest ones (the average turnover is 4,180 thousand Euro). Gravel, sand, clay and kaolin are the mostly extracted raw materials (40%). The majority of the enterprises have 10 to 49 employees with mostly a primary education (average of 64%).

In contrast to the other clusters, these firms seem to pay more attention to environmental sustainability related to the product, seeking for alternative raw materials that can replace those currently in use. To achieve this goal, they invest more than 5% of their turnover in environmental sustainability.

The investments are steadily increasing, also thanks to public funding used by the firms of this cluster.

The supported investments have positive economic returns. In fact, all the profitability ratios point out that the proactive firms are in equilibrium from an economic point of view.

Cluster 4 – Unsatisfied firms

This cluster contains 14 enterprises that are small sized, quite mature with 41 years of business experience and have an average turnover of 7,457 thousand euro. Nearly 60% of them extract gravel, sand, clay and kaolin and has fewer than 50 employees. Taking into account their education, in this cluster there is the highest percentage of employees with a high school diploma (39%).

Environmental sustainability policies appear to be quite consolidated, beginning less than 10 years ago. Investments are constant over time and their amount is between 1% and 5% of revenues. As for the other clusters, even in this case, the majority of firms have never enjoyed public funding. The activities are focused only on the manufacturing process (92.9% of the firms) with the main aim to reduce atmospheric emissions and noise pollution.

Despite the firms in cluster 4 continue to investment in environmental sustainability, their efforts do not turn into satisfactory financial results. In fact, they record annual loss of approximately 213 thousand euro, ROE is negative (on average -7.6%) as well as return on investment (on average 0.7%).

Cluster 5 – Non-green firms

This cluster of 17 firms is the largest one and is the second in terms of revenues (average 9,140 thousand euro). Almost the totality of enterprises has fewer than 50 employees, this demonstrate that the respondents are small sized.

Although this group reaches the highest percentage of graduated employees, the majority of employees have only a compulsory education level (73%).

The enterprises in cluster 5 show a considerable maturity in the mining industry with 44 years of business experience. They pull out heterogeneous raw materials with a prevalence of gravel, sand, clay and kaolin.

A distinguishing feature of this cluster is the lack in the adoption of environmental sustainability policies. The main reasons are the excessive costs and high technological constraints, that have get a medium-high score of answers (4 or 5-points Likert scale) by the 70.6% and the 58.8% of the firms. This result shows that not all enterprises are sufficiently prepared to adopt green policies. In addition, some firms give little importance to the local community as a stakeholder. In fact, half of the member of this cluster think that the adoption of green policies does not have positive effects on local communities where mining activities are carried out. This could be interpreted like a sign of a strategic myopia of the sector in which they operate.

The non-green firms present the worst performance, with average annual losses for more than 3 million euro. This negative result impacts on financial ratios that, except ROI, are all negative.

In Table 2 the higher frequencies associated to each cluster are presented. As shown, the number of employees and their education level are a recursive feature in each cluster.

TABLE 2: DESCRIPTION OF THE CLUSTERS

	C1 Consolidated	C2 Adaptive	C3 Proactive	C4 Unsatisfied	C5 Non-green
<i>N. of Enterprises</i>	15	10	4	14	17
<i>Business Experience (years)</i>	35	57	22	41	44
<i>N. of Employees</i>	10 - 49	10 - 49	10 - 49	10 - 49	10 - 49
<i>Employees Education Level</i>	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory
<i>Raw Materials</i>	Building stones, marlstone, limestone, chalk	Gravel, sand, clay, kaolin	Gravel, sand, clay, kaolin	Gravel, sand, clay, kaolin	Heterogeneous, with a slight prevalence of gravel, sand, clay, kaolin
<i>Revenues (.000 euro) (*)</i>	12,812.29	4,238.89	4,180.25	7,456.71	9,139.81
<i>Field of application</i>	Product and Production Process	Product and Production Process	Product	Production Process	None
<i>When?</i>	< 5 years ago	Between 2 and 5 years ago	Between 5 and 10 years ago	< 10 years ago	None
<i>% Investment on Revenues</i>	> 5%	0.1 % - 0.5%	> 5%	1% - 5%	None
<i>Investment Trend</i>	Increasing	Stable	Increasing	Stable	None
<i>Funding</i>	Private	Private	Private and public	Private	None
<i>Profit (.000 euro) (*)</i>	1,387.07	90.67	32.25	-212.93	-3,283.88
<i>ROE (*)</i>	0.79%	1.33%	1.25%	-7.57%	-9.13%
<i>ROI (*)</i>	4.79%	1.89%	1.25%	0.71%	1.31%
<i>ROS(*)</i>	5.64%	3.22%	1.75%	3.43%	-2.94%
<i>(*) average values of firms in each cluster</i>					

Discussion and managerial implications

The literature review shows that most applications of the triple bottom line approach have been more philosophical than practical. In cases where a measurement mechanism is used, this is primarily adopted from the business side only (Faux and Dwyer 2009). Although the importance of the triple bottom line for manufacturing firms is recognized, in this work we focus mainly on the economic results of firms that had decided to adopt green policies without quantify the impact of social and environmental dimensions.

In fact, some researches have pointed out that managerial practices that are focused on environmental sustainability (recycling, waste reduction, remanufacturing, environmental design, and surveillance of the markets) have a positive impact on firm performance (Montabon, Sroufe, & Narasimhan, 2007).

The results of the research lead to further reflections.

First of all, most of the investments try to pursue eco-efficiency strategies to optimize the use of resources and to strengthen firms reputation. The majority of the respondents exploit eco-friendly production processes in terms of pollution control, waste minimization (CO₂ and noise), product and resources reusing and recycling. This aspect will probably strengthen firms' reputation among environmentally sensitive stakeholders.

However, evidences point out that for the majority of respondents the adoption of environmental sustainability policies is mainly based on institutional goals rather than on strategic ones. It is also interesting to note that although these policies have not a pure monetary return for the respondents (cost reduction and / or turnover increase), they are considered by some of them as a driver of relationships with the external environment and can be seen like something that can differentiate the firms over their competitors in terms of image and firm value (Jacobs, Singhal, and Subramanian, 2010).

Especially the medium sized enterprises belonging to the first cluster recognize the constraints of the law as a pressure element towards the adoption of green policies. Nonetheless, at the same time they are seeking to capitalize on the competitive advantages and strengthen their reputation with the promotion of environmental sustainability. The constant and considerable investments are then paid off in economic terms. In fact, consolidated firms in cluster 1 show the best business performance.

The firm size does not seem a factor that explains the effects of environmental sustainability on firms' performance. Indeed, despite their small size the proactive point out a satisfactory business performance.

Cluster 5 also proves the correlation between the adoption of green policies and business performance. In fact, the non green firms that do not consider environmental sustainability as a strategic asset, show the worst economic performance. They are not sensitive towards the implementation of environmental strategies and they do not perceive as positive the relationship between eco-investments and economic benefits. An explanation can be found in the trade-off between additional costs for sustainability efforts and its benefits. For instance, investments in sustainable manufacturing technologies pay off to a certain degree due to higher efficiency and resource savings, but at the same time this is only true until the additional costs exceed the realized marginal benefits.

Aside from companies "not green" respondents, investments in environmental sustainable activities do not go down. The majority of enterprises have been constantly investing on green solutions for energy minimization, materials reduction, and / or pollution prevention. However, more efforts in sustainability do not lead per se to better performance, being reachable only until a certain threshold. Firms like those in cluster 4, taking a very proactive approach in sustainability, tend to overinvest in the green approach and go beyond the optimal effort-performance ratios.

Another interesting point is almost the total lack of government incentives the firms can access in order to obtain additional financing and / or alternative resources. The empirical research shows the need to create and promote public initiatives to support firms on environmental management. In fact, the percentage of enterprises that have not yet begun the process of adopting sustainability practices appears to be quite high for an industry where environmental protection is a fundamental element.

To synthesize, the research confirms the findings of Molina-Azorin, Claver-Cortés, Lopez-Gamero and Tari's work (2009) in which they state the influence of environmental management on financial performance. Although results are not univocal, the authors find a predominance of studies providing evidence for a positive impact of green management on economic performance.

Limits of the research and future developments

The present study presents some limitations. First, the small sample does not allow any statistical representativeness. It is nonetheless a starting point for further investigation. Furthermore, although cluster analysis is a technique based on mathematical and statistical principles, it has a subjective component on the interpretation that the researcher gives to groups.

Besides, the economic sphere from the triple bottom line is mostly taken into account. Environmental and social aspects were not measured through indexes. For further researches it would be desirable to include in a quantitative way these pillars too. It also seems very interesting develop a qualitative research together with the quantitative survey in order to better interpret the questionnaire data and, above all, to highlight some best practices in the mining industry.

References

- [1] Aldenderfer, M. S., & Blashfield, R. K. (1984). *Cluster analysis*. Beverly Hills: Sage.
- [2] Cohen, M., Fenn, S., & Naimon, J. (1995). *Environmental and financial performance: are they related?* Working paper. Vanderbilt University: Nashville.
- [3] Cordeiro, J., & Sarkis, J. (1997). Environmental proactivism and firm performance: evidence from security analyst earnings forecasts. *Business Strategy and the Environment*, 6, 104–14.
- [4] Delmas, M., & Toffel, M.W. (2004). Stakeholders and environmental management practices: an institutional framework. *Business Strategy and the Environment*, 13, 209–222.
- [5] Dyllick, T., & Hockerts, K., (2002). Beyond the business case for corporate sustainability. *Business Strategy and the Environment*, 11, 130–141.
- [6] Gonzalez-Benito, J., & Gonzalez-Benito, O. (2005). Environmental proactivity and business performance: an empirical analysis. *Omega*, 33, 1–15.
- [7] Judge, W., & Douglas T. (1998). Performance implications of incorporating natural environmental issues into the strategic planning process: an empirical assessment. *Journal of Management Studies*, 35, 2, 241–62.
- [8] Kassinis, G., & Vafeas, N. (2006). Stakeholder pressures and environmental performance. *Academy of Management Journal*, 49, 1, 145–159.
- [9] Klassen, R.D., & McLaughlin, C.P. (1996). The impact of environmental management on firm performance. *Management Science*, 42, 8, 1199–1214.
- [10] Molina-Azorin, J.F., Claver-Cortés, E., Lopez-Gamero, M.D., & Tari, J.J. (2009). Green management and financial performance: a literature review. *Management Decision*, 47, 7, 1080–1100.
- [11] Montabon, F., Sroufe, R., & Narasimhan, R. (2007). An examination of corporate reporting, environmental management practices and firm performance. *Journal of Operations Management*, 25, 998–1014.
- [12] Russo, M., & Fouts, P. (1997). A resource-based perspective on corporate environmental performance and profitability. *Academy of Management Journal*, 40, 534–59.
- [13] Savitz, A. W., & Weber, K. (2006). *The triple bottom line: How today's best-run companies are achieving economic, social and environmental success - And how you can too*. San Francisco, CA: Jossey-Bass.
- [14] Wagner, M. (2005). How to reconcile environmental and economic performance to improve corporate sustainability: corporate environmental strategies in the European paper industry. *Journal of Environmental Management*, 76, 105–118.
- [15] Wagner, M, Van Phu, N., Azomahou, T., & Wehrmeyer, W. (2002). The relationship between the environmental and economic performance of firms: an empirical analysis of the European paper industry. *Corporate Social-Responsibility and Environmental Management*, 9, 133–146.

Contact authors for the list of references.

Exploring The Relationship Between Green Innovations And Internationalization

*Maria Chiarvesio, chiarvesio@uniud.it
University of Udine, Italy*

*Valentina De Marchi, valentina.demarchi@unipd.it
Eleonora Di Maria, eleonora.dimaria@unipd.it
University of Padova, Italy*

Exploring The Relationship Between Green Innovations And Internationalization

Abstract

Consumers, policy makers, NGOs and other stakeholders are increasingly challenging firms to reduce environmental impacts of their products and processes. The fragmentation of production activities among different firms, geographically dispersed and independent one from the other poses peculiar challenges for firms that seek to achieve this aim, especially when they are embedded in supply chains involving countries where environmental standards and consumer awareness are quite different. In this paper we investigate the relationships between internationalization and firms' eco-innovation strategies, considering both for upstream and downstream internationalization. Based on original data on Italian firms specializing in traditional industries, we analyze the relationship between the geography of firms activities – as far as their presence in international markets, development of FDIs and engagement in relationships with global suppliers – and their environmental practices. Preliminary evidence suggest that, when it comes to green firms activities and their supply chains, geography matters.

1. Introduction

The environmental sustainability of firms and economic systems has become a priority. Firms are progressively becoming aware of the environmental implications of their activities of production and distributions and are starting to implement green practices to reduce such impacts. Studies exploring how firms are coping with those issues cover multiple perspectives (e.g. Kolk, Mauser, 2002), from green strategies (Orsato, 2009) to green innovation (De Marchi, 2012), from more focused marketing-based approach (green marketing, Polonsky, 1994) to green supply chain management (Srivastava, 2007). According to most of the contributions, the core idea is that the firm alone cannot effectively and efficiently manage and reduce the environmental side of its economic activities, due to the complexity of the matter as well as the interdependence occurring across actors and processes (also worldwide).

On the one hand, literature has focused on identifying alternative paths toward greening, by considering the pro-active vs. reactive approaches of the firm in adopting more sustainable behavior (Buysse and Verbeke, 2003). In this term it is important to consider the role of the firm within the value chain, where lead firms are usually observed as the actors that push upstream value chain to be greener. From a strategic point of view multiple drivers can affect sustainability strategies (González-Benito and González-Benito, 2006), combining regulation, technological improvement as well as market changes. On the other hand, studies have explored the processes and the functions more interested by sustainability initiative, by emphasizing the marketing side (green marketing), the innovation side (eco-innovation) or the side of operations (eco-efficiency) and supply chain management (green supply chain management). The firm can invest in developing capabilities in one or more of the mentioned areas (Hofmann et al., 2012) as starting point for increasing its environmental sustainability, with hopefully also positive implications on firm's performance (Hitchens et al., 2004).

Despite this growing body of literature, scholars have instead given less emphasis on the relationship between greening and internationalization. While the attention for the geographical dimension of economic activities and its impacts on sustainability is generally considered, many studies focused on the role of proximity among actors to control and manage properly the environmental side of firms' behaviors (i.e. eco-industrial parks) (Roberts, 2004). Minor attention is devoted to explore in details the link between the degree of firm's internationalization and firm's greening strategies (Aguilera-Caracuel et al., 2012). The paper aims at shedding light on the connections between the level and characteristics of a firm' internationalization approach and its greening orientations. In this paper we investigate the relationships between internationalization and firms' greening activities, considering both for upstream and downstream internationalization. While the existence of a positive link between internationalization and the diffusion of environmental compliant behaviors and the development of environmental innovation is pretty established within the developing countries setting, on the contrary evidence on the developed country context is rather scarce and mixed. Based on original data on Italian firms specializing in traditional industries, we investigate the relationship between the geography of firms activities – as far as their presence in international markets, development of FDIs and

engagement in relationships with global suppliers – and their environmental practices, considering both big and small firms. Furthermore, we investigate how firm's innovativeness and marketing strategies is related to firm's environmental orientation.

2. Greening Strategies And Internationalization: Theoretical Framework

2.1 Firms And The Greening Of Economic Activities

According to Orsato (2009) firms have alternative strategic options to be green, on the basis of the focus of their competitive strategy (cost or differentiation) and the orientation of their environmental sustainability (process or product). Among the four directions, the two more interesting and polarized strategies are eco-efficiency, on the one hand (cost leadership/environmental processes), and on eco-branding on the other hand (differentiation, green product). The former asks for a business process reengineering (i.e. lean production, Dües et al., 2013) of internal activities, while the latter requires strong and marketing capabilities in order to convey the green meaning attached to the product to customers (Ginsberg and Bloom, 2004; Grant, 2007; Albino et al. 2009). The firm can position its product or the organization through Corporate Social Responsibility (CSR) initiatives (Porter and Kramer, 2006). In addition, especially when green-to-be products are concerned, innovation capabilities become also significant (i.e. internal R&D functions), since a continuous research on new materials, new design, or new components to be used can further contribute to reach the goal. Despite the opposite starting points, however, an overlap between the greening of products and processes emerge over time and the firm can increase and complete its transformation into a more sustainable firm through further improvements on both sides. To sum up, the firm has to develop dynamic capabilities that allow the organization better achieving its environmental goals (Berchicci et al., 2012; Castiaux, 2012).

Studies on eco-innovation have highlighted the characteristics and differences of such form of innovation compared to others (e.g. De Marchi, 2012, Wagner and Llerena, 2011), where firm's networking is crucial in order to gather key knowledge to be applied for greening purposes (van Kleef and Roome, 2007). On the one hand, eco-innovation is effective according to the level of absorptive capacity a firm has compared to the specialized environmental-related knowledge that has to be transferred (acquired). On the other hand, eco-innovation requires the development of relationships with a large and differentiated set of knowledge providers. Eco-innovation is not driven only by technological improvements (or leapfrogs) but is also related to institutional pressures (i.e. toward certifications) or market-driven (Rennings, 2000).

From a different perspective, studies on outsourcing (Oshri et al., 2011) and (international) fragmentation of production (Feenstra, 1998) have shown through multiple angles a progressive enlargement of manufacturing and distribution processes among different actors. Consequently, a more complete achievement of a firm's greening strategy can be obtained only by involving all the actors in the value chains – from suppliers, to distributors, to customers (e.g. Helg and Hultman, 2011). Compared to the downstream of the value chain, scholars have dedicated larger attention on upstream greening transformations of economic activities (Seuring and Müller, 2008). According to Srivastava (2007) green supply chain management (GSCM) means “integrating environmental thinking into supply-chain management, including product design, material sourcing and selection, manufacturing processes, delivery of the final product to the consumers as well as end-of-life management of the product after its useful life” (p. 54-55). Studies stressed the role of leading firms in pushing environmental improvements of suppliers (e.g. Kogg, 2003). Scholars suggests that, in order to change suppliers' attitudes and behavior toward sustainability, those nodal firms develop specific mechanisms of knowledge transfer and technical cooperation, by changing the mechanism of governance of supply chains from market to more relational-based forms (Geffen and Rothenberg, 2000; Simpson and Power, 2005; Tseng and Chiu, 2013; Chan et al., 2012).

2.2. Exploring The Link Between Greening And Internationalization

The geographical scale of economic activities is a crucial issue from a sustainability point of view. Spatial proximity among actors involved in the manufacturing processes can reduce environmental related costs and impacts (i.e. lower carbon footprint) and increase the effectiveness of firm's green strategies. The more fragmented and dispersed the productive process, the higher the potentially negative environmental consequences.

Few studies have highlighted the role of spatial agglomeration as a crucial element to consider in order to evaluate the scale of environmental impacts. Moreover, territories in which the economic activities are carried out can influence the firm's orientation toward sustainability (Clini et al., 2008). From this point of view, some scholars have focused their attention on the promotion of sustainable economic activities by applying the principles of industrial ecology to economic systems, specifically through the promotion of eco-parks or eco-clusters (e.g. Coté and Cohen-Rosenthal, 1998; Dimitrova et al., 2007; Wallner, 1999). "Industrial ecology offers unique opportunities to add value to manufacturing firms located in a cluster. The clustering of firms with similar waste and by-product streams create opportunities to concentrate and minimize the collection costs of waste in one location. [...] Industrial ecology thus has the potential to create opportunities to add value to industrial production through synergies and business networks that form naturally in clusters" (Roberts, 2004, p. 999). Other studies have discussed about the environmental transformation of industrial districts (Becattini et al., 2009) as important contexts where to test and promote green initiatives, due to the high concentration of firms specialized in the same industrial activity in a delimited area, also socially cohesive (Battaglia et al., 2010).

An opposite perspective explores the global dimension of economic activities, taken for granted the spatial dispersion of production and consumption. Studies on global value chains (e.g. Gereffi, 2005) explored the international organizations of industries and how lead firms – either producers or buyers – drive those processes in a global setting, with also environmental implications (Handfield et al., 1997; Jeppesen and Hansen, 2004; De Marchi et al., 2013). Studies on large global buyers (i.e. IKEA, see Ivarsson and Alvstam, 2010) for instance show how the global production and sourcing strategy of large corporations can impact on the environment in positive or negative terms, where low-income countries (and captive suppliers) may be affected by the detrimental aspects of such strategies (Ehrgott et al., 2010). However, few studies highlighted also the positive consequences on firms and economic systems of emerging countries in terms of spreading of environmental practices among local firms (Sandhu et al. 2012; Zhu et al., 2012).

Studies on sustainable global supply chain management (Reuter et al., 2010; Carbone et al. 2012) explore how to select and manage suppliers at the international level to cope with environmental requirements. Specifically, in order to face the growing orientation toward sustainability (environmental and social one) of consumers and stakeholders in Western markets (e.g. Buysse and Verbeke, 2003), Western companies have to set up appropriate GSCM strategies such as certification requirements of suppliers or external audit (Reuter et al., 2010).

Despite those studies we think that further theoretical research is needed in order to describe the link between the environmental proactivity of a firm "understood as the voluntary implementation of practices and initiatives aimed at improving environmental performance [...] manifest through different strategies, each characterized by a series of environmental practices" (González-Benito, González-Benito, 2006, p. 88) and the firm's degree of internationalization, with specific attention to eco-innovation practices.

In addition to external drivers, according to González-Benito and González-Benito (2006) there are different company features that affect environmental proactivity: company size and resource availability, internationalization, position in the value chain, managerial attitude and motivations, and finally strategic attitude. Concerning internationalization, a multinational firm can benefit from being located in many countries (both for production or commercial purposes, i.e. through foreign direct investments, FDI) in terms of new knowledge inputs as well as regulatory or other market constraints that push the firm to increase its environmental standards also at the entire organizational level (see also Peng et al., 2009).

Aguilera-Caracuel et al. (2012) studied the relationship between the firm's international experience and its impact on environmental strategies. The authors focused specifically on export activities measured in terms of number of years a firm is exporting – to capture how knowledge and capabilities the firm has acquired and developed abroad can increase its response to international demand for environmental products, processes (services) or technologies (eco-innovation) - and the degree of export diversification – to capture how the firm can replicate and exploit knowledge and experience about environmental related practices across markets (countries). They found that only export diversification impacts on the firm's probability to adopt environmental strategies.

Kennelly and Lewis (2002) explored the relationship between the firm's degree of internationalization and environmental performance, by obtaining positive results. Cainelli et al. (2012) couple the analysis of spatial proximity and agglomeration economies (characterizing cluster-related literature) with internationalization strategies and their

implications on firms' environmental innovation. By exploring a sample of Italian small and medium enterprises located in industrial clusters, they did not find a direct and clear connection between internationalization of a firm and its environmental innovation activities, both considering export propensity and the presence of (inward) foreign direct investments. Similar results emerge in De Marchi and Grandinetti (2012), which, using data on the Italian community innovation survey, find evidence that firms that do export at least part of their products abroad are not more likely to introduce green practices but firms part of a foreign group does.

Based on these theoretical premises our hypotheses are as follows:

H1 – Firm's local sourcing is positively related with the eco-innovation practices of the firm

H2 – The firm's export intensity is positively related with the eco-innovation practices of the firm

H3 – The presence of firm's FDI is positively related with the eco-innovation practices of the firm

H4 – Multinational ownership of the firm is positively related with the eco-innovation practices of the firm

3. Going Green Means Also Going Global? Evidences From The Italian Firms

3.1 The Empirical Context

In order to test the hypothesis on the relationships existing between the eco-innovation attitude of firms and their internationalization strategies, we use data from an original dataset gathered from the TeDIS Center within a survey aimed at monitoring the evolution of competitive strategies of Italian companies. We will focus on a sample of 684¹ firms randomly selected from the population of the companies with a turnover higher than 1 million Euros (2009 last balance sheet available), belonging to the so called Made in Italy sectors (primarily fashion, home products and furniture, mechanics, but we also include electronics, plastics and rubber) and stratified by industry and size. Companies have been extracted from the AIDA database (including 51.048 companies with the mentioned characteristics); the survey was conducted during May-July 2011 through phone interviews on a structured questionnaire addressing the entrepreneur, the general manager or a sales manager, according to the size and internal organization of the firm contacted.

3.2 The Variables For The Analysis And Descriptive Statistics

The dataset employed allows to adopt a subjective approach to the identification of environmental innovations, similar to what has been employed in several of the most recent analysis on environmental innovations based on community innovation survey (CIS) data (see e.g., De Marchi, 2012; Borghesi et al 2012; Horbach et al. 2012). In other words, the identification of green innovators is based on self-reported information. The questionnaire included two questions useful for the identification of such firms. The first asked firms to report if they have introduced any process innovation aimed at improving environmental sustainability and was used to build the dependent variable EI-PROC, which is a dummy. The second question used to build the dependent variable asked firms about the attributes that make their product new, in case they reported to have introduced a product innovation. Firm could select all the attributed that apply among the following: a) aesthetical design, b) material employed, c) embedded technology, d) functionality, e) service, f) reduced environmental impact. Given the low number of firms reporting that their products were new for their environmental characteristics (58 firms, representing the 8.5% of the sample), we did not perform the analysis just on environmental product innovators but considered them through the variable EI-PRODPROC. The variable EI-PRODPROC is a dummy valuing one if the firms have introduced any product innovation whose novelty was the reduced environmental impact or any process innovation with environmental benefit (EI-PROC).

To test hypothesis 1 on the role of local sourcing for firm's environmental innovation propensity we include in the analysis the variables LOCALSUPP and OUTSOURCING. OUTSOURCING values 1 if the firms outsource at least part of their manufacturing activities and rely on suppliers: LOCALSUPP, instead, is a continuous variable reporting the share of suppliers of the firm, if any, that are located within the industrial district, local labor system or region the firm is located in. In order to understand if firm's export intensity is positively related with its eco-innovation practices (Hypothesis 2) we employ a question of the questionnaire asking interviewees to report the share of their turnover done on foreign markets. The dummy EXPORT50 captures if the firm has a strong export propensity: it values 1 if more than half of its turnover is done serving non-Italian customers. The dichotomous variable FDI has been introduced to test Hypothesis 3 on the role of foreign direct investments and consolidates information coming from

different questions. More precisely, it indicates if the firm has a) fully owned or participated investment for manufacturing; b) commercial branches; c) franchising store, or d) proprietary store. Finally, to verify the hypothesis on the existence of a relationship between the introduction of environmental innovative practices and the participation to a multinational group (Hypothesis 4) the variable FOREIGNFIRMS was introduced, valuing 1 if the firm is part of a group whose headquarters are abroad or if the group is Italy-based but includes firms located abroad.

In addition, we include a number of control variables regarding structural characteristics of the firms and their innovation strategies. Several studies reported the positive role of the presence at firms of environmental management system (EMS), including the EMAS or ISO14001 certification schemes, on their attitude toward environmental innovations, especially those regarding the production process (e.g., Wagner, 2007). We therefore include the dummy CERTIFIED, which values 1 if the firm has obtained or is in the process of obtaining any environmental certifications. Considering that the literature reports that size affects eco-innovation propensity (see e.g., Del Rio Gonzalez, 2005, 2009; De Marchi & Grandinetti, 2012), emphasizing the difficulties of small and medium enterprises in facing the complexity of environmental innovations and the investments needed to switch to greener technologies, we include in the analysis the dummies MICRO and SMALL, equal 1 if the firm has less than 10 employees or more than 10 and less than 50, respectively. Moreover, we control for the innovative strategy of the firms with the variables R&D and COLLABORATION, the first measuring the existence of internal inputs of the innovative activities (in terms of presence of a structured R&D internal activity), the second to external ones. The questionnaire has a question asking respondents to report if they cooperate on innovative activities with any of the following knowledge partners: a) Italian universities; b) foreign universities, c) scientific parks; d) Italian research centers; e) foreign research centers; f) local service centers; g) other (including consultants, certification agencies and the like). COLLABORATION is a measure of the openness of the firm in its innovation activity: it is a count variable reporting how many of those knowledge partners the firms cooperate with, taking on values from 0 to 7. Finally, we control for industry specialization – including four industry dummies² – capturing the impact of different policy restrictions and consumers’ awareness in different sectors. Table 1 lists the definition and the descriptive statistics of the variables used in the analysis and Table 2 below report the simple correlations among the regressors.

[1] TABLE 13: DESCRIPTION AND DESCRIPTIVE STATISTICS OF THE VARIABLES USED

Name	Description	Mean	S.D.
EI-PROC	Green process innovators	38.16%	48.61%
EI-PRODPROC	Green process or product innovators	41.08%	49.23%
LOCALSUPP	% supplier from the district or region	41.74%	45.46%
OUTSOURCING	Firms outsourcing at least some activities	63.89%	48.07%
EXPORT50	Firms exporting more than half of their turnover	29.51%	45.64%
FDI	Firms having FDI	18.42%	38.79%
FOREIGNFIRMS	Firms part of a group affiliating foreign firms	19.74%	39.83%
CERTIFIED	Certified firms	22.37%	41.70%
MICRO	Firms with less than 10 employees	10.43%	30.59%
SMALL	Firms with less than 50 employees	53.20%	49.93%
R&D	Firms implementing R&D activities	50.29%	50.04%
COLLABORATION	Number of knowledge partners the firms cooperate on innovation with (0:7)	0.462	0.976
FASHION	Fashion industries	17.54%	38.06%
HOME	Home furnishing industries	16.37%	37.03%
MECH-PLAST	Mechanics, electronics, plastics	59.50%	49.13%
OTHER	Other industries	6.58%	24.81%

TABLE 14: SIMPLE CORRELATIONS AMONG REGRESSORS

	1.	2.	3.	4.	5.	6.	7.	8.	9.

1. LOCALSUPP	1								
2. OUTSOURCING	0.6840*	1							
3. EXPORT	0.0332	0.1612*	1						
4. FDI	-0.0067	0.1688*	0.2108*	1					
5. FOREIGNFIRMS	-0.0682	0.044	0.2141*	0.3329*	1				
6. R&D	0.0458	0.1840*	0.2187*	0.2838*	0.1771*	1			
7. CERTIFIED	0.0074	-0.0055	0.0582	0.1069*	0.2274*	0.1267*	1		
8. MICRO	-0.0121	-0.0516	-0.1105*	-0.1007*	-0.1189*	-0.2463*	-0.1345*	1	
9. SMALL	-0.0137	-0.0863*	-0.1071*	-0.2417*	-0.3067*	-0.1662*	-0.1782*	-0.3639*	1
10. COLLABORATION	0.012	0.0815*	0.1231*	0.2584*	0.2548*	0.3572*	0.1667*	-0.1368*	-0.1977*

As reported in Table 1, firms that have introduced any process innovations that reduce environmental impacts represent the 38.16% of the sample. Environmental product innovations are much less diffused, being introduced just by 8.48% of the interviewed firms. It is interesting to notice that the great majority (65.52%) of firms that have introduced product innovations have introduced also process ones, suggesting that the development of product with environmental features implies changes in the production processes. This overlap between the two approaches toward the reduction of environmental impacts – those targeting the product and the process – explains why the incidence of firms that have introduced one or the other (EI-PRODPROC) is just slightly bigger than that of firms introducing just process ones (EI-PROC), being 41.08% and 38.16% respectively. The diffusion of certifications among the firms part of the sample is lower (29.51%) but in line with evidence coming from other empirical contexts (see e.g., Gonzales et al. 2008)

The majority (63.89%) of firms part of the sample outsource at least part of their production activities: 10.23% of the firms reported to be responsible just for the logistic activities, being neat examples of the so-called “manufacturers without factories”, whereas 53.65% focus on some activities and rely on suppliers for others. On average, a great part of such suppliers (41.74%) are local, being located within the same region or even the same industrial districts, whereas foreign suppliers represent still a minority (on average, 11% of the total number of suppliers): 72.66% of the firms do not have any supplier outside the Italian border. On the contrary, firms are quite open to international markets: 75.23% of the firms do export and export amount to 32.60% of the overall turnover, on average. The share of firms that earn the majority of their turnover in such markets (EXPORT50) is 29.51%. Almost one firm out of five has foreign direct investments (FDI), being them productive or commercial, and a similar incidence describes companies part of a group that affiliate firms located abroad (FOREIGNFIRMS).

The majority of firms of the sample are small, which is coherent with the distribution of firms in the empirical setting considered: Italy. 63.63% of interviewed firms have less than 50 employees, among which 10.43% can be defined micro firms, having less than 10. However, the sample includes also bigger firms, mainly medium-sized firms, namely companies with more than 50 and less than 250 employees, which represent the 30.85% of the sample. As far as their innovative activities are concerned, half (50.29%) of the firms interviewed have an internal R&D capacity whereas just 26.32% of them cooperate with any knowledge partners on innovation. 15.35% cooperates with just one typology of the partners listed; on average they cooperate with 0.46 partners. It is interesting to notice that Italian universities are by far the partners they cooperate more likely with, among the ones listed. Table 1 reports also the firms’ industry specialization: 59.50% of the firms work within the mechanics, electronics or plastics industries, followed by firms specialized in fashion industries, represented the 17.54% of the sample and in the home-furnishing (16.37%).

3.3 Green Process And Product Innovators And Internationalization

Since the dependent variables of our model are dummies, we implement a logit regression, which identifies the relationship between the measures of internationalization and the controls we used on the probability to introduce an environmental innovation with respect to not introduce it. Table 3 reports the results of such regression considering environmental process innovation (EI-PROC) and product or process innovation (EI-PRODPROC) as dependent variables.

[2] TABLE 3: LOGIT REGRESSION, EXPLAINING THE PROPENSITY TO INTRODUCE PROCESS EI (EI-PROC) AND PROCESS OR PRODUCT EI (EI-PROD)

	EI-PROC		EI-PRODPROC	
	Coef.	S.E.	Coef.	S.E.
LOCALSUPP	0.804***	(0.278)	0.930***	(0.274)
OUTSOURCING	-0.842***	(0.273)	-0.854***	(0.269)
EXPORT50	-0.402*	(0.207)	-0.394*	(0.203)
FDI	0.327	(0.250)	0.350	(0.249)
FOREIGNFIRMS	0.560**	(0.239)	0.533**	(0.242)
CERTIFIED	0.656***	(0.209)	0.758***	(0.210)
MICRO	-0.561	(0.353)	-0.691**	(0.350)
SMALL	-0.385*	(0.207)	-0.379*	(0.205)
R&D	0.285	(0.203)	0.281	(0.198)
COLLABORATION	0.185*	(0.099)	0.219**	(0.105)
HOME	0.555*	(0.315)	0.189	(0.303)
MECH-PLAST	0.692***	(0.255)	0.471**	(0.238)
OTHER	0.388	(0.419)	0.165	(0.407)
Constant	-1.007***	(0.361)	-0.724**	(0.345)
Observations	644		644	
Pseudo R-squared	0.0928		0.0983	
Chi-squared	64.17		67.08	

*Robust standard errors in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$*

We find strong evidence that firms that, when outsource part of their manufacturing activities, rely on local suppliers are more likely to introduce environmental innovations; the coefficient of LOCALSUPP, in fact, is positive and highly significant. Interestingly, the coefficient of OUTSOURCING is significant but negative, meaning that firms that perform internally all the steps needed to produce their product have higher probabilities to introduce products or processes that lower the impact on the environment. If we found evidence to support Hypothesis 1, the contrary is true for Hypothesis 2 that suggests the existence of a positive relationship among firms' export propensity and their attitude toward sustainability. Actually, the coefficient of the dummy we use to proxy export (EXPORT50) is negative, even if it is significant just at the 10% level. It is worth reporting about the results that we obtained when regressing different variables capturing export strategies, including the incidence of foreign markets on total turnover and a dummy reporting firm's export propensity. The coefficient of such proxies, in fact, were negative even if not significant, which is in line with results proposed in other analysis on similar empirical contexts.

As far as hypothesis 3 is concerned, which postulate the existence of a positive relationship between the firm's eco-innovation propensity and its direct investment in foreign countries, we find no support. The same result was found when controlling just for FDI regarding manufacturing activities or commercial ones, and also when considering just those targeting emerging economies, which suggest the robustness of this evidence. Being part of a group composed of firms located abroad (FOREIGNFIRMS) is positively correlated with the introduction of both process and product innovations, giving support to hypothesis 4. The participation in multinational groups may represent for firms a fruitful occasion to learn about new eco-innovation possibilities or about best practices characterizing other countries³.

Results presented are consistent across the two models – the one measuring just process EI propensity, the second both product and process EI propensity – except for control variables. Interestingly, size appear to be a matter

especially when product innovations are concerned, whereas there are not significant differences between micro firms and medium or big ones when it comes to process EI introduction. This evidence is consistent with the fact that product innovations are more complex and may therefore benefit from the existence of a larger stock of resources at the firm, being them financial or technological. Moreover, bigger firms may experience higher incentives to introduce green products, either because they are better able to exploit their potential on the final markets, thanks to their brand and communication effort, or because they are willing to avoid reputation risks, higher for more visible firms. On the contrary, process EI results often in the application of end-of-pipe technologies or the implementation of eco-efficiency measures, which are practices that are nowadays accessible (if not compulsory) even to smaller firms. Another interesting result emerging from the analysis of the coefficients of the dummies capturing the size effect regards the fact that returns of size to EI propensity seems to be not linear: in fact, in the model using EI-PROC as a dependent variable, the coefficient of SMALL is significant, whereas that of MICRO is not. Such analysis may be interpreted as evidence that also very small firms may be proactive in considering environmental sustainability issues in their activities or, in other words, that sustainability is not a matter just for big firms. As far as control variables considering for the firms' innovative effort are concerned, the coefficient of R&D is not significant, whereas COLLABORATION is, even if just at the 10% level in the first model presented. Finally, results support the existence of differences in EI propensity across sectors, which varies when considering process or both process or product innovations.

4. Conclusions And Future Research

The aim of this paper is to investigate the relationship between internationalization and environmental innovation of firms, both in terms of process and product innovation. The internationalization processes going on downstream and upstream suggest that a firm's greening strategy needs the involvement of the whole value chain. However, the literature is quite controversial about the impact of the internationalization on the environmental companies' proactivity. On one side, spatial proximity among actors can reduce negative environmental impacts and increase the effectiveness of green innovations; on the other, multinational with dispersed locations can access multiple sources of knowledge and be stimulated by different regulations to improve environmental standards. Besides, while some studies have found a positive relation among international experience and environmental strategies, other give less straightforward results.

Our results show that in our sample of Italian firms specialized in traditional manufacturing industries the probability to invest in product or process environmental innovation is higher when the company does not outsource the production or the suppliers are mainly local, within the same cluster or region. This could be interpreted as a need to strictly govern the environmental innovation in order to get results on the market. An environmental innovation is more effective when it involves the whole value chain and it is positively perceived by the final customer. Hence, this is feasible when the suppliers are close (also from a cognitive point of view), but it could be very difficult to carry out eco-innovation practices if they are geographically dispersed and the company does not have enough market power. Otherwise, vertical integration allows being more independent in developing eco-innovation strategies.

On the downstream side, we find a negative correlation between export propensity and environmental innovation. Confirming other researches (see e.g., De Marchi, 2012, De Marchi and Grandinetti, 2012; Borghesi et al., 2012), while the export performance is usually positively related with the more general innovation effort of a firm (e.g. Roper and Love, 2002), it seems not to be compatible with innovation strategies aimed at reducing the environmental impact of firm's activities. One reason, in our case, could be the fact that Italy is considered among the countries with a high environmental propensity being part of the EU, becoming an ideal market for green firms, compared to other markets. Being characterized by a level of consumer awareness and of policy stringency similar to that of the most advanced markets, as for environmental practices, firms based in Italy do not find additional incentives to introduce product or process innovations entailing lower environmental impacts when exporting.

Finally, belonging to a multinational group reinforces green strategies, both because the group becomes a crucial source of knowledge and the company can take advantage of intra-group synergies. Three are the only structural firm variables of those included in the analysis that seem to be related to the environmental proactivity as

far as eco-innovation is concerned: a) the presence of an environmental certification; b) the size, and c) the propensity to innovate within a network of collaborations, especially when product innovation is concerned.

Summing up, our results offer interesting insights on the link between the firm's internationalization and its environmental attitude, by stressing a twofold path in this direction. On the one hand, the less internationalized the production value chain, the higher the probability to invest in green processes or products. On the other hand, the opposite relationship appears when considering the *knowledge* value chain. In fact, the company benefits from being inserted in an international group and being open in the process of innovation development, cooperating with national and international research partners.

We think these results can contribute to the stream of research about the determinants of environmental innovation, that is still young especially when the focus is the impact of a firm's internationalization. Nevertheless, this study suffers some limits due to the definition of process and product innovation, that was considered only in general terms and that do neither control for the intensity of the eco-innovative effort, nor distinguishing between firms introducing a high or a low number of EIs, which can lead to very different results (see e.g.. De Marchi and Grandinetti, 2013). Future research is needed to better analyze the role of internationalization, going more in depth in investigating if the geography of exports (countries served) is related to different green strategies impact of firms propensity to include environmental concerns in their innovation activities. In fact, our analyses indicate that the relationship between the environmental innovation and export may not be linear and straightforward and encourage to further the analysis considering for different market destinations' characteristics and to interact such variables with other characteristics of the firm's strategy.

References⁴

- [1] Aguilera-Caracuel, J., Hurtado-Torres, N. E., & Aragón-Correa, J. A. (2012). Does international experience help firms to be green? A knowledge-based view of how international experience and organisational learning influence proactive environmental strategies. *International Business Review*, 21(5), 847–861.
- [2] Berchicci, L., Dowell, G., & King, A. A. (2012). “Environmental Capabilities And Corporate Strategy: Exploring Acquisitions Among Us Manufacturing Firms. *Strategic Management Journal*, 33, 1053–1071.
- [3] Cainelli, G., Mazzanti, M., & Montresor, S. (2013). Environmental Innovations, Local Networks and Internationalization. *Industry and Innovation*, 19(8), 697–734.
- [4] De Marchi, V. (2012). Environmental innovation and R&D cooperation: Empirical evidence from Spanish manufacturing firms. *Research Policy*, 41(3), 614–623.
- [5] De Marchi, V., Di Maria, E., & Micelli, S. (2013). Environmental Strategies, Upgrading and Competitive Advantage in Global Value Chains. *Business Strategy and the Environment*, 22, 62–72.
- [6] Gonzalez, P., Sarkis, J., & Adenso-Diaz, B. (2008). Environmental management system certification and its influence on corporate practices: Evidence from the automotive industry. *International Journal of Operations & Production Management*, 28(11), 1021-1041.
- [7] Jeppesen S, Hansen WH. (2004). Environmental upgrading of third world enterprises through linkages to transnational corporations. Theoretical perspectives and preliminary evidence. *Business Strategy and the Environment*, 13, 261–274.
- [8] Kennelly JJ, Lewis EE. 2002. Degree of internationalization and corporate environmental performance: is there a link? *International Journal of Management*, 19(3), 478–489.
- [9] Orsato, R.J. (2009). *Sustainability Strategies. When Does it Pay to be Green?* New York: Palgrave.
- [10] Peng, Y.-S., Luan, C.-J., & Chou, C.-C. (2009). Why go green?: The effects of internationalization, path-dependency, and environmental uncertainty. *PICMET 2009 Proceedings*, 1730–1737.
- [11] Porter, M.E., Kramer, M. R. (2006). Strategy and society: the link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92.
- [12] Rennings, K. (2000). Redefining innovation — eco-innovation research and the contribution from ecological economics. *Ecological Economics*, 32(2), 319-332.
- [13] Sandhu, S., Smallman, C., Ozanne, L. K., & Cullen, R. (2012). Corporate environmental responsiveness in India: lessons from a developing country. *Journal of Cleaner Production*, 35, 203–213.
- [14] Seuring, S, Müller M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, 16, 1699–1710.
- [15] Srivastava, S. K. (2007). Green supply-chain management: A state-of-the-art literature review. *International Journal of Management Reviews*, 9(1), 53–80.

End Notes

¹ From the 718 firms initially included in the dataset we excluded firms that declared that their main activities is to produce services and which were not specialized in Made in Italy sectors, which amounted to 34 firms.

² Based on the ATECO Italian classification, the following industries have been considered: fashion (13 textile, 14 clothing, 15 leather), home products and furniture (16 wood, 31 furniture, 23 products not based on metals), 25 mechanics, 26-27 electronics, 22 plastics and rubber, other manufacturing industries (17 paper, 28 machinery, 29 automotive, 30 transportation).

³ This result is driven by the multinational dimension of the group and not by the participation to the group itself: we performed the above presented analysis including a variable capturing this second effect and its coefficient was not significant, whereas that of FOREIGNFIRMS was still positive and significant.

⁴ Contact the authors for the full list of references.

Dynamics of Corporate Social Responsibility in Albanian Joint Stock Companies

*Amali Çipi**, amalia.cipi@univlora.edu.al
*Department of Business Administration,
Faculty of Economics, University of Vlora "Ismail Qemali",
Sheshi Pavarësia, 9401 Vlorë, Albania*

Shyqyri Llaci, shyqyri.llaci@fakultetiekonomise.edu.al
*Department of Management,
University of Tirana
Rruga Elbasanit, 1016 Tiranë, Albania*

Fernando A. F. Ferreira, fernando.alberto.ferreira@iscte.pt
*Fogelman College of Business and Economics, University of Memphis
&
ISCTE Business School, BRU-IUL, University Institute of Lisbon
Avenida das Forças Armadas, 1649-026 Lisbon, Portugal*

* Corresponding author.

Dynamics of Corporate Social Responsibility in Albanian Joint Stock Companies

Abstract

As an important component of “good” Corporate Governance (CG), corporate social responsibility (CSR) boosts foreign investment opportunities, which are of crucial importance in transitional economies such as Albania. For this reason, and based on an application of the Delphi technique, this paper aims to analyze the evolutionary patterns of CSR in Albania. In spite of the panel members’ good knowledge about the rights of other stakeholders, such as employees, creditors and suppliers, the results of our 2-year study demonstrate that the participating Chief Executive Offices (CEOs) did not consider these other stakeholders, and thus CSR, crucial in terms of CG practices. In light of the results, we recommend companies to implement a permanent dialog with these stakeholders in order to further improve their long-term performance. The Albanian government should also be more active in supporting companies and promoting the development of CSR policies, which are determinants of market opportunities and economic development.

Keywords: *Corporate Social Responsibilities, Development Prospects, Sustainable Growth, Albanian Joint Stock Companies, Delphi Technique.*

Introduction

Commitment to Corporate Social Responsibility (CSR) means rehabilitating corporate image on the market and involvement of all the interested stakeholders. Several studies have shown that companies have faced over the years substantial financial losses as a result of social and environmental problems or incidents. From this premise, firms all over the world are increasingly incorporating social strategies and CSR initiatives into business strategies, giving a positive response to the citizens’ demands (Fernández and Souto, 2009). According to Van Dijken (2007) and Rezaee (2009) among others, CSR can influence “values” by reaffirming the need to have codes of conduct and ethical standards in place. CSR is therefore an important component of conceptual value added and can shape the mission and vision of companies beyond shareholder value maximization (Gyves and O’Higgins, 2008). Furthermore, the positive attitude of foreign and domestic business investors towards socially responsible projects is becoming part of “good” CG practices. In this sense, CSR mechanisms implementation may be seen as a long run intangible asset, linked with reputation risk, and an opportunity to attract potential foreign investors, which have particular importance in transitional economies such as Albania.

Based on this initial background, and grounded on the outcomes of a panel of Albanian Chief Executive Offices (CEOs), this paper aims to analyze the evolutionary patterns of CSR practices in Albania and to provide development prospects. In particular, in order to identify and compare CSR practices in Albania before and after the 2008 financial crisis, we have identified the Delphi technique as an appropriate methodology for studying the level of CSR acknowledgment and practices used by Albanian Joint Stock Companies (JSCs). The investigation was conducted during 2 years (2012-2013), in the most representative cities in Albania, where the greatest number of Albanian JSCs are. In particular, this choice was supported by the lack of historical data and the absence of prior research using the Delphi technique to analyze the level of knowledge and implementation of CSR mechanisms in Albania. In this sense, the study contributes to current research by offering empirical results related to the application of the Delphi technique and forecasting CSR evolutionary trends.

The remainder of this paper is structured as follows: section 2 presents the literature review highlighting the most recent trends in CSR; section 3 presents a brief methodological background of the Delphi approach and justifies its application in the context of the present investigation; section 4 presents the results of our study; and section 5 concludes the paper.

Literature Review and Recent Trends on Corporate Social Responsibility

CSR is spreading globally as a new management concept. The term CSR came into common use in the early 1970s, after many multinational corporations were formed (Pop *et al.*, 2011). Following this, and according to the literature, there have been many attempts to define the CSR concept. CSR is a form of corporate self-regulation mechanism and/or a business model by which firm monitors ensure its compliance with the law, ethical standards and international norms (Pop *et al.*, 2011). According to Garay and Font (2012: 329), CSR is “*a complex term broadly defined as the active and (sometimes) voluntary contribution of enterprise to environmental, social and economic improvements [...]*”.

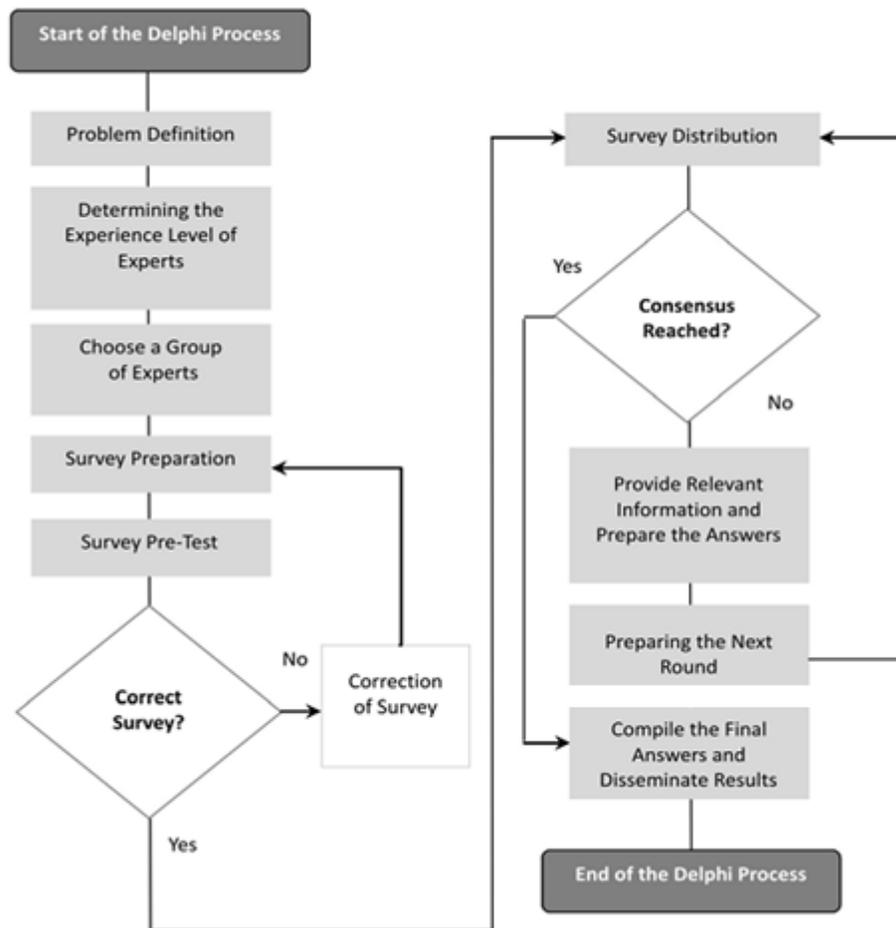
Commitment to CSR is seen as a path to a wide range of benefits. Specifically, these benefits can be classified into *monetary* (*i.e.* direct financial effects) and *non-monetary* (*i.e.* do not directly lead to cash flows but can be measured in monetary terms) benefits. In this sense, and based on the contribution of several authors such as Aguilera *et al.* (2006), Crowson (2009), Duhé, S. (2009), Fernández and Souto (2009), Ammann *et al.* (2011), Chen (2011), Green and Peloza (2011), and Garay and Font (2012), who investigated the relationship between social and financial performance, there are six main areas of CSR business benefits: (1) *company image and reputation as a responsible business*, linked to increased market share and maintenance of key personnel, directing investors’ confidence towards CSR, namely because many investors consider the manner in which a company manages its social, environmental and ethical challenges as indicators of management quality; (2) *enhanced positive effects on employee retention, motivation, productivity and recruitment*; (3) *cost savings* (*e.g.* re-designing processes with CSR green parameters or reducing waste – actions that often simplify operations and save money); (4) *revenue increases from higher sales and market share* (*e.g.* CSR creates emotional, social, and functional value for consumers), thus enhancing firm value (*i.e.* revenue increases can be achieved indirectly through an improved brand image or directly; *e.g.*, by CSR-driven product or market development or selective election by consumers); (5) *risk management and reduction* (*e.g.* negative press or customer/NGO boycotts); (6) *strengthen company market position and competitiveness*; and (7) *changing relationships all along the value chain*, based on trust and doing things the right way with suppliers and customers. From this premise, even in scenarios of economic adversity, and despite the cost associated to CSR implementation, CSR can be seen as a fundamental opportunity and/or a tool in developing and redefining winning strategies (*e.g.* innovation, comfortable atmosphere and deep internal reflection) and overcome turbulent situations (Fernández and Souto, 2009).

Based on the discussion presented herein, we can conclude that CSR will be an ever evolving proactive concept and will be influenced by differences in national background, stakeholder requirements, customer and business emerging needs and ever-changing business environment, which in turn is being faced with irresponsible business practices (*e.g.* the sub-prime lending crisis). In this sense, one may assume that the implementation of CSR standards may be seen as a tool to create competitive sustainable advantages for Albanian firms both in the region and in the European market. Furthermore, while Albania continues its path to the European membership, the integration of economic, environmental and social issues is a very important commitment for the business community and the society at large.

The next section presents the background of the Delphi technique, which is important to understand how the application of this technique can assist the analysis of the evolutionary patterns, and to provide development prospects for CSR practices in Albania.

Methodological Framework: The Delphi Technique

The Delphi technique was originally developed as a tool, in the 1950s at the *RAND Corporation*, Santa Monica, California, in order to foresight warfare decision making problems (*cf.* Dalkey and Helmer, 1963; Hsu and Sandford, 2007). According to Linstone and Turoff (2002), Ferreira and Monteiro Barata (2011), Von der Gracht (2012), Ferreira *et al.* (2013) and Worrell *et al.* (2013), among others, anonymity, controlled feedback and statistical treatment of group responses characterize the overall Delphi process. The method’s operational structure is shown in *Fig.1*.



(Source: Zapata in Ferreira *et al.*, 2013, adap.)

FIG. 1 Operational Structure of the Delphi Technique

The overall Delphi investigation begins with the problem definition and the selection of an expert panel. It then continues with the development of a structured survey, which implies the use of a series of questionnaires (in each round) to collect data and judgment from the panel. This iteration procedure, associated with the statistical feedback on the group responses, provides the experts with the opportunity to revise their views until a group consensus or stability in the responses is reached. As argued by Dalkey and Helmer (1963), the object of Delphi is to “*obtain the most reliable consensus of opinion of a group of experts [...] by a series of intensive questionnaires interspersed with controlled opinion feedback [...]*”. This procedure continues until the research question under discussion is answered or an adequate amount of information has been exchanged (Skulmoski *et al.*, 2007) (further details can be found in Dalkey and Helmer, 1963; Dalkey, 1969; Hsu and Sandford, 2007; Ferreira and Monteiro Barata, 2011; Ferreira *et al.*, 2013; Çipi *et al.*, 2014).

The Delphi method works particularly well in situations where there are no historical data or relevant information available about a problem or research phenomenon and that problem cannot be resolved by precise analytical techniques (Ferreira *et al.*, 2013; Çipi *et al.*, 2014). In this sense, it seems plausible to assume that the Delphi method suits the circumstances of the unexplored topic of CSR practices in Albania, regarding which there is very

little research and information. Furthermore, to the best of our knowledge, there is no prior research using the Delphi technique to analyze the level of knowledge and implementation of CSR mechanisms in Albanian JSCs. Following this, there is considerable scope to explore this methodological approach in the Albanian context. From a methodological perspective, a questionnaire survey was developed to determine the current level of CSR practices used by Albanian JSCs, to identify possible changes as a result of 2008 financial crisis and, finally, to forecast future trends. The results of our study are presented in the following section.

Analysis of the Results

Taking into consideration the aim of this study and the Albanian context (*i.e.* low number of CG experts), it was decided to include in the initial Delphi panel 80 JSC CEOs from Tirana, Durrës, Fier, Vlorë (where the greatest number of Albanian JSCs is concentrated), Shkodra, Tropoja, Elbasan, Gjirokastër, Lushnje and Saranda. The panel companies represent different types of JSCs (*i.e.* banking, insurance and other financial services). Also, some of them represent private JSC, while others stand for state-owned JSCs (established as such from the beginning or generated from special laws). The overall investigation lasted 2 years (2012-2013). After the first round, the number of panel members was reduced to 53 and, after the second round, only 37 members responded to the survey. Nevertheless, it should be emphasized, that there is no “ideal” or “exact” panel size for the application of the Delphi technique (Ferreira and Monteiro Barata, 2011). Therefore, responses from the 37 members in the final round assure the basis of our survey.

Sample Characterization

The characterization of the panel members (*i.e.* the 37 respondents of the 2nd round) is provided in *Table 1*, which shows that most respondents are *male* (70.3%), and between 43-47 years old (40.6%). As for qualifications, most of them hold a *higher academic degree* (67.6%), predominantly in *economics or management* (67.6%).

TABLE 1: CHARACTERIZATION OF THE RESPONDENTES [second round]

Delphi Panel		N	%
Gender	Female	11	29.7
	Male	26	70.3
	Total	37	100.0
Year of Birth	1952-1956	3	8.1
	1957-1960	3	8.1
	1961-1965	8	21.6
	1966-1970	15	40.6
	1971-1976	8	21.6
	Total	37	100.0
Qualifications	4-Year diploma	12	32.4
	MSc, MBA	20	54.1
	Ph.D.	5	13.5
	Other	0	0.00
	Total	37	100.0
Area	Economics/Management	25	67.6
	Engineering	8	21.6
	Other	4	10.8
	Total	37	100.0

A summary of data regarding the firms’ ownership structure is presented in *Table 2*. As can be seen, they are mostly controlled by individuals, foreign shareholders or domestic societies or state, indicating that the panel

companies have a concentrated ownership structure. This evidence was predicted by IFC (2008) and confirmed by Çipi *et al.* (2014).

TABLE 2: THE OWNERSHIP STRUCTURE (ownership of shares) OF PANEL FIRMS [n=37]

	Responses	N	%
Administration	0%	26	70.3
	10–50%	6	16.2
	100%	5	13.5
	Total	37	100.0
Employees	0%	34	91.9
	3–6%	3	8.1
	Total	37	100.0
Individuals	0%	11	29.7
	19–50%	3	8.1
	51–87%	6	16.2
	100%	17	46.0
	Total	37	100.0
Foreign investors or domestic society	0%	24	64.9
	40–76%	5	13.5
	100%	8	21.6
	Total	37	100
State	0%	25	67.6
	5–27%	4	10.8
	100%	8	21.6
	Total	37	100.0

Furthermore, ownership by administration or company employees is less common, indicating low incentives to distribute stock options among these stakeholders. However, having this type of incentives in place is necessary to effectively motivate workers and make them real stakeholders. *Table 3* provides a general overview of the companies' supervisory/administrative board dimension. As can be seen, boards have a relatively small number of members in their composition.

TABLE 3: THE BOARD SIZE AND COMPOSITION [n=37]

	Number	%
Total number of supervisory/administrative board	3–5	62.2
	6	21.6
	7–15	16.2
	Total	100.0
Number of company employees	1–2	68.2
	3–4	31.8
	Total	100.0

In particular, 62.2% of the panel members indicated that their company boards have 3-5 members; 28% indicated 6 members; and the remainder 16.2% indicated that the board has from 7 to 15 members in its composition. Additionally, the number of company employees as member of the board seems to be low, registering only 68.2% and 31.8% in the ranges 1-2 and 3-4 members respectively, indicating the relatively little “voice” given to these stakeholders

in the supervision/administration process of the company (according to the Albanian Company Law, the presence of employees in the boards is not mandatory, but it is seen as a “good” CG practice). The data obtained according to the structure of the questionnaire are presented in the next subsections.

Current Situation

The objective of this section was to determine the *level of acknowledgement of some important CSR mechanisms and their benefits*. Respondents were first asked to rank, by order of importance (*i.e. 1 = most important; 3 = third most important*) the three factors that they considered most important to affect the firm performance. According to *Table 4*, the majority of responses focused on *CEO’s power over the supervisory/administrative board* (with 48 points), followed by *stronger shareholders’ right* (40 points) and *quality of company’s regulations* (39 points). It is interesting to note that *Corporate Social Responsibility practices, other stakeholders’ rights and transparency issues*, as part of “good” CG practices, were given almost null importance as far as CG benefits go, possibly indicating a relative lack of relative importance attributed to such issues.

TABLE 4: BENEFITS PROVIDED BY THE IMPLEMENTATION OF CG MECHANISMS [n=37]

Benefits	Points
CEO’s power over the supervisory/administrative board	48
CEO’s reward	11
Composition and size of the supervisory/administrative board	35
Degree of ownership concentration	23
Implementation of corporate social responsibility practices	1
Number of independent members in the supervisory/administrative board	13
Quality of company’s regulations	39
Stronger shareholders’ rights	40
Taking into consideration the rights of the other stakeholders	5
Transparency and disclosure of the company’s information	8
Total	223

The establishment of a clear code of conduct and ethical standards may be a clear indicator for CSR measurement in Albania. In this sense, we tried to collect the information on the *availability of a code of conduct*. As can be seen in *Table 5*, most of the respondents affirm the *existence of the code of conduct* (75.7%), although 24.3% affirm the contrary.

TABLE 5: AVAILABILITY OF CODE OF CONDUCT [n=37]

	Responses	%
Availability of code of conduct	Yes	75.7
	No	24.3
	Total	100.0

The next question was based on a Likert scale from 1 to 5 (*1 = strongly disagree; 5 = totally agree*). Respondents seem to be favourably disposed toward corporations pursuing the interests of all stakeholders in addition to those of shareholders (*Table 6*).

TABLE 6: THE COMPANY GOAL IS TO ACHIEVE THE WELFARE OF ALL STAKEHOLDERS [n=37]

	Mean	Median	Standard deviation	Coefficient of variation

Besides making profit for shareholders, the company has the goal of achieving the welfare of various stakeholders, such as employees and customers	4.38	5.00	0.721	0.165
--	------	------	-------	-------

As can be seen, the results obtained are interesting, in particular given the apparent lack of importance given to the other stakeholders in terms of CG benefits mentioned before (see again *Table 4*, where the option *taking into consideration the rights of the other stakeholders* received 5 points).

The next question aimed to collect the opinion of the respondents about the recognition of creditors, employees, local community and suppliers. According to *Table 7*, and using a Likert scale from 1 to 5 (*1=inadequate level; 2=somewhat; 3=intermediate level; 4=good; 5=very good*), the panelists affirm to have a *good* recognition of the rights of those stakeholders.

TABLE 7: THE LEVEL OF STAKEHOLDERS RIGHTS [n=37]

	Mean	Median	Standard deviation	Coefficient of variation
Creditors	4.22	4.00	0.821	0.195
Employees	4.22	4.00	0.917	0.217
Local community	3.86	4.00	1.004	0.260
Suppliers	4.27	4.00	0.769	0.180

Comparison Between Two Periods

The objective of this part of the survey was to evaluate possible changes occurred to CSR mechanisms, as part of “good” CG practices used by the Albanian JSCs, as a result of the 2008 financial crisis. In this sense, the next question aimed to analyze the companies’ attitude toward CSR expenses. Most of the panel members (64.9%) pointed to a *reduction in the CSR budget*. However 27.0% argued *no influences on the company’s CSR budget* and a few of them indicated *increments to the company’s CSR budget* (8.1%) (*Table 10*).

TABLE 8: THE INFLUENCE ON THE COMPANY’S CSR BUDGET [n=37]

Responses	%
Has increased the budget	8.1
Has reduced the budget	64.9
Has no influence	27.0
Total	100.0

For the next question, we tried to understand the panelists’ opinion about what corporate governance mechanisms have changed as a result of 2008 financial crisis. On a scale from 1 to 5 (*1 = strongly disagree; 3 = neither agree nor disagree; 5 = totally agree*), *amount spent on CSR, board design* and *board tasks* received the highest punctuations. Still, it is worth noting that all items were punctuated with low scores, meaning that the changes occurred as a result of the global crisis are not as significant as one could initially think (*Table 9*).

TABLE 9: MAJOR CHANGES TO CG MECHANISMS [n=37]

CG Mechanisms	Mean	Median	Standard Deviation	Coefficient of Variation
Accounting standards	1.84	1.00	1.259	0.684
Amount spent in corporate social responsibilities	2.84	3.00	1.236	0.435
Board design	2.16	2.00	1.214	0.562

Board tasks	2.14	2.00	1.251	0.585
CEO evaluation and compensation	2.05	2.00	1.268	0.618
Concentration of ownership	1.62	1.00	1.037	0.640
Law and regulation (the company's statute)	1.84	1.00	1.302	0.708
Percentage of shareholders present in the meetings	1.59	1.00	0.985	0.619
Role of minor shareholders	1.32	1.00	0.915	0.693
Role of other stakeholders in decision making	1.84	1.00	1.191	0.647

Future Developments

This part of the survey sought to analyze the future perspectives of Albanian CEOs regarding the implementation of CSR. We tried to understand the panelists' opinion about what CG tasks can be the most effective in providing high-quality CG practices in Albania. Panelists were asked to rank, by order of importance (*1 = first most important; 3 = third most important*), the CG mechanisms that will mostly affect the effectiveness of CG in Albania. *Table 10* presents the aggregated scores.

TABLE 10: FUTURE GOALS OF CG PRACTICES [n=37]

Priorities	Points
Improved market position	67
Increased annual turnover	45
Increased of the outcome	38
Attraction of investment	18
Improved decision making	14
Improvement of the company reputation	14
Increased efficiency in the company operations	14
Lower cost of capital	9
Increase the firm activity transparency	4
Protection of stakeholders rights	2
Improving coordination between shareholders and administration	1
Total	226

As can be seen, the majority of responses focused on *improving the company's market position* (67 points), followed by *increasing the annual turnover* (45 points), and *increasing the outcome* (38 points). On the other hand, advantages receiving the fewest votes were *protection of the shareholders' rights* (4 points) and *coordination improvements between shareholders and administration* (1 point). It should be noted that *attraction of investment*, especially foreign investment, accumulated only 18 points – a notable difference from the three top CG future goals, indicating a low level of knowledge of the real long-term benefits of the best CG practices. Furthermore, the *protection of stakeholders' rights* as a good CSR practice is given null importance (only 2 points), indicating again a low level of knowledge on stakeholders long-term role as a “good” CSR practice.

The next question asked the panelists to rank by order of importance (*1 = first most important; 6 = sixth most important*) the actors that can influence the improvement of CG in Albania. According to *Table 11*, the majority of responses focused on the *financial supervisory of financial agencies or fair trade commission* (221 points) as the most influential actor in improving CG in Albania, followed by *professional associations such as accounting and audit* (201 points), and ranked in the third place *external members of the board* (172 points). Next, we have *universities* (130 points), *financial press* (128 points), *court* (125 points) and, ranked in last place, *civil activists* (57 points).

TABLE 11: INFLUENT “GROUPS” IN IMPROVING CG IN ALBANIA [n=37]

Influential Actors	Points
--------------------	--------

Financial supervisory of financial agencies or fair trade commission	221
Professional associations such as accounting and audit	201
External members of the board	172
Universities	130
The press (Financial)	128
The court	125
Civil Activists	57
Total	1034

Final Conclusions and Recommendations

In the era of globalization, there is an increased awareness on the importance of CSR. The global economic crisis emphasized more than ever the commitment to sustainability, responsibility and disclosure in order to create economic (*e.g.* by attracting institutional investors) and social value. In this sense, the use of CSR places business in a better position to survive economic and social difficulties, and to better meet the customer needs by creating an intangible asset known as “good reputation”. This reports evidence that the role of CSR can be more important in transitional economies such as Albania, as it serves as a feature in attracting foreign direct investment and rehabilitating the corporate image by improving CG practices.

Despite the general benefits and the potential implications of implementing CSR mechanisms as “good” CG practices, there has been little empirical research related to CSR in Albania. Furthermore, there is a lack of knowledge and appreciation on the role that CSR issues may have on firm performance. As such, our investigation aimed to understand the degree to which Albanian firms pay attention to CSR issues even in periods of economic difficulties, forecasting developments based on an application of the Delphi technique (*i.e.* considering the perceptions of a panel of JSCs CEOs). As previously stated, we know of no prior work using the Delphi technique to analyze the evolutionary patterns and provide development prospects for CSR practices in the particular context of this study. Thus, the study contributes to current research by offering empirical results related to the application of the Delphi technique and forecasting CSR evolutionary trends.

According to the analysis of our results, it is quite clear that the first step towards the development of CSR practices has already been given, but the level of knowledge on the benefits and the implementation of best practices is still a challenge. More specifically, our investigation showed that JSC directors seem to believe in the rising importance of employees for corporate success without being overly concerned about the low level of participation and voice in the decision making process of companies’ employees (indicated by the low level of representation in the firms’ boards of directors). Their concern about the weak participation by these stakeholders does not seem to be significant although there are a lot of factors contributing to a favourable environment for employee participation in the decision making process such as high level of employees’ educational background (especially in the bank sector), and the availability of other mechanisms such as ownership of stock options which really make them company stakeholders. In contrast, they should view the role of stakeholders rather positively, especially to prevent the abusive actions of controlling shareholders. Indeed, our questionnaire survey shows that concentrated ownership is predominant in all the panel firms. Furthermore, in some of them, the state is still one of the largest shareholders. These types of Albanian JSCs are more likely to strongly focus on a stakeholder approach to CG than a shareholder approach. Financial regulatory and supervisory agencies may be directly involved in setting and enforcing the rules for business conduct, for the purpose of protecting not only possible investors but also company stakeholders. They can motivate politicians, controlling owners and managers, who are concerned about their reputations, to adopt more effective CSR related laws, policies and practices. While stakeholders, especially employees, appear to play only a small role in the firm decision-making process, this may not be the case in the future. In general, panel CEOs view stakeholders broader role favourably (*i.e.* they strongly agree that a corporation has the goal of enhancing the well-being of various stakeholders in addition to making profits for its shareholders).

In light of the results, we believe that this study can raise awareness among managers and policy makers, in order to give greater attention to CSR mechanisms in the future. We strongly recommend companies implement a

permanent dialog with these stakeholders in order to further improve their long-term performance. Furthermore, companies should develop their own codes of ethics in terms of CSR, as well as embracing the principles and guidelines of the CG code and they should publish annual reports regularly updated with CSR projects or initiatives. Business owners need to be more proactive and take the opinion of their community's needs. This issue becomes even more important for the Albanian European integration process. For this reason, the Albanian government should also be more active in supporting companies and promoting the development of CSR policies, which are determinants of market opportunities and economic development. They can initiate the publication of a CSR national action plan and CSR indicators, and strengthen infrastructure services to facilitate CSR practices and reduce costs of doing business. The government should encourage and assist businesses to achieve CSR standards and to create additional competitiveness' opportunities to compete.

References

- [1] Aguilera, R., Williams, C., Conley, J., & Rupp, D. (2006). Corporate governance and corporate social responsibility: A comparative analysis of the UK and the US. *Corporate Governance: An International Review*, 14(3), 147-157.
- [2] Ammann, M., Oesch, D., & Schmid, M. (2011). Corporate governance and firm value: International evidence. *Journal of Empirical Finance*, 18(1), 36-55.
- [3] Chen, C. (2011). The major components of corporate social responsibility. *Journal of Global Responsibility*, 2(1), 85-99.
- [4] Crowson, P. (2009). Adding public value: The limits of corporate responsibility. *Resources Policy*, 34(3), 105-11.
- [5] Çipi, A., Shyqyri, L., & Ferreira, F. (2014). Current situation of corporate governance practices in Albanian joint stock companies: A Delphi-based approach. *Procedia – Social and Behavioral Sciences*, 110, 841-851.
- [6] Dalkey, N., & Helmer, O. (1963). An experimental application of the Delphi method to the use of experts. *Management Science*, 9(3), 458-467.
- [7] Duhé, S. (2009). Good management, sound finances, and social responsibility: Two decades of U.S. corporate insider on reputation and the bottom line. *Public Relations Review*, 35(1), 77-78.
- [8] Fernández, B., & Souto, F. (2009). Crisis and corporate social responsibility: Threat or opportunity?. *International Journal of Economic Sciences and Applied Research*, 2(1), 36-50.
- [9] Ferreira, F., & Monteiro Barata, J. (2011). A snapshot of the Portuguese e-banking activity: Insights and conceptual framework to allocate strategic hindrances. *International Journal electronic Business*, 9(3), 238-254.
- [10] Ferreira, F., Spahr, R., Gavancha, I., & Çipi, A. (2013). Readjusting trade-offs among criteria in internal ratings of credit scoring: An empirical essay of risk analysis in mortgage loans. *Journal of Business Economics and Management*, 14(4), 715-740.
- [11] Garay, L., & Font, X. (2012). Doing good to do well? Corporate social responsibility reasons, practices and impacts in small and medium accommodation enterprises. *International Journal of Hospitality management*, 31(2), 329-337.
- [12] Green, T., & Peloza, J. (2011). How does corporate social responsibility create value for consumers?. *Managerial Law*, 28(1), 48-56.
- [13] Gyves, S., & O'Higgins, E. (2008). Corporate social responsibility: An avenue for sustainable benefit for society and the firm?. *Society and Business Review*, 3(3), 207-223.
- [14] Pop, O., Dina, G., & Martin, C. (2011). Promoting the corporate social responsibility for a green economy and innovative jobs. *Procedia Social and Behavioral Sciences*, 15, 1020-1023.
- [15] Rezaee, Z. (2009). *Corporate Governance and Ethics*, Wiley.

“Contact author for full list of references”.

Attitude and perception towards green products in Macao: An exploratory study

Alessandro Lampo, alessandro.lampo@usj.edu.mo

Sin U Leong, leong.sin.u@usj.edu.mo

Saint Joseph University, Macao SAR

Attitude and perception towards green products in Macao: An exploratory study

Abstract

This paper reports on the attitude and perception towards green products among Macao residents. Renowned for its prosperous casino industry, the ex-Portuguese colony in the South China Sea is currently at a growth stage with investments to develop mega-resorts and gaming facilities in the coming years. The booming economic growth has brought an unprecedented well-being and also put severe strain on the region's limited natural resources. In spite of the recent efforts to address the issue, limited research has been published with reference to attitude and perception of the local population towards environmentally friendly purchases. To address this gap in literature, a questionnaire distributed to 203 Macao residents is analyzed. The result suggests that when it comes to choose green products over non-green products consumers in Macao feel they do not have many choices in local shops. The attitude of the residents towards the environment contributes significantly to the intention to purchase green products and pay higher prices for the sake of the environment, but their willingness to pay a premium for going green varies by product category. This study also provides basic consumer insights to firms wishing to introduce and market eco-friendly products in the Territory.

Keywords: green products, green marketing, Macao

Introduction

The past decades have seen an increase in environmental consciousness all over the world. Firms, organizations and consumers worldwide are more and more focusing on the necessity to live in harmony with the surroundings and reduce their environmental footprint. Consequently company have introduced a range of products such as those that are reusable, energy efficient, made with recycled materials, manufactured with minimal environmental impact, or delivered in eco-responsible packaging or containers. Consumers can substantially influence the environment with their purchasing behaviors, but the environmental consequences that purchasing decisions are responsible for are often difficult to recognize, and knowledge about the issue may be limited. Orange (2010) explains that in spite of the growing interest in green purchases (such as organic food, energy-saving lights, or hybrid cars) people have become increasingly closed off to genuine environmental messages, and skeptical of the claims that products are making. Research suggests that despite positive forecasts, demand for green products didn't grow as expected and both attitude-behavior and intention-behavior gaps emerged (Wong, 1996; Ginsberg & Bloom, 2004; Sachdev, 2011); that is shoppers are thinking green, but not always buying that way. Even if consumers are conscious about their environmental impacts, they may be reluctant to change their behaviors because they may perceive such change as being too costly or troublesome. According to Ginsberg and Bloom (2004) when consumers are forced to make trade-offs between product attributes or helping the environment, the environment almost never wins, as most consumers simply will not sacrifice their needs or desires just to be green. Thus, consumers are unlikely to compromise on product attributes such as convenience, availability, price, quality and performance to buy green products.

In the wake of growing environmentalism, a substantial body of literature has come up over the years examining various aspects of green issues (Jain & Kaur, 2004) thus providing managerial insights to green marketers and policy makers to promote products and ideas more effectively. Such studies, however, remain absent with reference to Macao, a special administrative region of China (SAR) that has become well known in recent years for the prosperous casino industry, a sector that is responsible for the unprecedented well-being of the region.

Macao Case Study

Macao is a limited territory with a population of 607,500 (DSEC, 2014) that, unlike Hong Kong or China, has maintained a distinctive multi-cultural identity (Lampo & Lee, 2011) and is regarded as a unique and fascinating case study of economic growth and development (Lee, 2011) to the extent that industry observers acknowledge that what we are seeing today is a confluence of events that will never again be seen in our lifetime (Kale, 2006). A Portuguese colony for over 400 years, Macao returned to the People's Republic of China on December 20th 1999, but the real fortunes of the territory started only in 2002 with the liberalization of the gaming industry. In 2006 Macao's gaming

revenue surpassed the Las Vegas Strip to become the world's biggest gambling center, and in 2013 revenue grew to the amount of US\$45 Billion. Today the economy of the territory is fueled by the increasing number of visitors that every year sets new records. With the vast majority of visitors from Mainland China and Hong Kong, in 2013 the total arrivals were 29.32 million, a number that nearly tripled the 11.53 million visitors registered in 2002 (DSEC, 2014.)

To meet the increasing tourist demand the territory is continuously at a growth stage, with investments to develop mega-resorts and gaming facilities year by year. The most visible consequence is that the need for the hospitality industry to rapidly expand has put severe strain on the region's limited natural resources. In recent years land reclamation projects have transformed the landscape of the territory from natural water and green land to buildings and roads. Because everything happened so fast, the environment has been threatened. Therefore, the increasing population and visitor number mean that waste generation, electricity consumption, greenhouse gas emissions, and water consumption will continue to rise. To address the evidence of environmental problems, the Government invested in the 2014 Macao International Environmental Co-operation Forum and Exhibition – MICEF - US\$ 3 Million in a series of activities with the purpose of creating green opportunities for the business community, and to advertise the concept of "thinking green, going clean and living cool". But while the local industry (casino and resorts) has made great strides toward sustainability (Lampo et al, 2012), limited information is available with reference to attitude and perception on green products among Macao residents, a gap that this study wants to address. Thus this paper is essentially exploratory in nature and focuses on the attitude and perception of a sample of Macao residents towards the purchase of green products. Additionally this paper offers basic understanding on the subject to firms and organizations wishing to promote environmental products and policies. The following section provides an essential theoretical background and the relevant literature.

Literature Review

This literature review provides the context for the study by introducing the concept of green marketing and green products. In recent years "green" is the buzzword that has gained popularity among market players, but is not a new concept. The term "green marketing" first appeared in the late 1980s as an extension of what the American Marketing Association (AMA) in 1975 referred to as "ecological marketing". Although there is no single definition universally accepted, Polonsky (1994) stated that green or environmental marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment. Green marketing is a part of marketing and therefore shares a number of aspects with traditional marketing such as price, promotions, products and place (Cherian & Jacob, 2012). Polonsky (1994) also argued that green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. Put simply, green marketing comprises all those marketing activities which the firms undertake to create a positive impact or lessen the negative impact of their products on the environment (Jain and Kaur, 2004). According to Ottman et al (2006), green marketing must satisfy two objectives: improved environmental quality and customer satisfaction. Since the 90s the enthusiasm around green marketing has dampened over time, among others factors, due to the behavior of enterprises whose interventions were based on a tactical rather than a strategic approach (Lampo et al. 2012). Today green marketing is a vital component of marketing research which began due to increasing media exposure and pressure on firms to present eco-friendly behavior (Cherian & Jacob, 2012).

In spite of the growing interest in green products, the concept boundaries are poorly defined and the literature still lacks a commonly accepted definition. Durif et al (2012) identified 35 definitions of green product, and combined them so to define green product as a product whose design and/or attributes use recycling resources and which improves environmental impact or reduces environmental toxic damage throughout its entire life cycle. Although no consumer product has a zero impact on the environment, in business, the terms "green product" and "environmental product" are used commonly to describe those that strive to protect or enhance the natural environment by conserving energy and/or resources and reducing or eliminating use of toxic agents, pollution, and waste (Ottman et al, 2006). According to Ottman et al (2006), successful green products are able to appeal to mainstream consumers or lucrative market niches and frequently command price premiums by offering "non-green" consumer value (such as convenience

and performance). Traditionally, consumers have resisted green products, distrusting their claims or believing that they are not as effective as “non-green” products (Stafford, 2003). Perhaps the most convincing evidence supporting the growth of ecologically favorable consumer behavior is the increasing number of individuals who are willing to pay more for environmentally friendly products (Laroche, 2001). A recent report showed that a significant minority of committed and proactive green shoppers are willing to pay more for green products, however, the larger potential population of shoppers that lean towards green want price and performance parity for sustainable products because it is not their dominant purchase driver (Deloitte, 2009). Laroche et al (2001) found that about 13% of consumers are willing to pay more for green products, and these consumers are more likely to be female; additionally they reported that 73% of consumers are undecided about whether they will pay more for green products. Having outlined the essential review of literature, the next section introduces the methodology followed for this report.

Sampling and Procedure

A structured questionnaire was developed for collecting attitudinal and behavioral data from the respondents. Both open-ended and closed-ended questions were employed for eliciting desired information from respondents. A five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) was used for obtaining responses. A few open-ended questions were added to the questionnaire for ascertaining respondents’ perceptions about the possible role of government, companies/manufacturers, individuals and others in resolving the environmental problems; and in identifying obstacles that respondents perceive to come in the way of alleviating environmental problems. The target population for the purpose of this study was restricted to Macao residents only. The questionnaires were administered by undergraduate students from a private university in Macao. Respondents were selected from the researchers’ personal network and by making use of the snowball method (Flick, 2009). The questionnaires were administered in Chinese and English, depending on the choice of the respondent. Participation was voluntary and no remuneration was offered. A total of 203 questionnaires were obtained and deemed sufficiently complete to be useable. The majority of the respondents are aged between 18 and 27 years old (60.1%) and nearly half represented by female (52%). Most of the sample (53.9%) is represented by students whereas 35.8% is employed. A large part of the interviewees preferred not to disclose their annual income (38.1%), while 28.2% indicated an annual income to be lower than MOP 80,000 (US\$ 9,850) and consistent with the status of student, 18.2% reported their income to be between MOP 80,000-239,000 (US\$ 9,850 -29,450), 10.5% reported MOP 240,000-479,000 (US\$ 29,450 - 59,000) and only 5% reported their income to be over MOP 480,000 (US\$59,100).

Discussion

This section reports about the attitude and perceptions of Macao residents with reference to green products in Macao and follows the structure that was used during the administration of the questionnaire.

Meaning of “Green Product”

The survey attempted to investigate what is the meaning of “green product”; the majority (45.1%) of the sample answered that a green product is something related to “environmental protection”; other provided meanings included a product that is “clean and not harmful” (8.0%), a product that is “healthy” (7.4%), a product that helps to “save the earth” (6.9%), a product that helps to “reduce pollution” (5.7%), a product that is generally “good or significant” (5.1%), a product which is related to “recycling” (3.4) and a product that helps to “save money” (3.4%).

Past purchases and Reasons to Resistance to Buy Green Products

The survey recorded whether the respondents had purchased any green product in the recent past, and 54.0% answered positively to this question, while 23.3% reported that they did not make any green purchase. Noteworthy is that 22.8% of the respondents are not sure if the products they had purchased in the past can be categorized as green products, thus signifying a general lack information about their purchases. The respondents were then asked their opinion about

what factor may discourage people to buy green products. The majority of the respondents (39.4%) thought that the main reason is that green products are over-priced. Other reasons provided by the respondents included the fact that green products “lack of advertisement or promotion” (13.7%), and that consumers may ignore or may lack information about what green products are (13.7%), for some (9.1%) there are not many choices of green products to choose from in Macao, and green products are difficult to find in shops in Macao (6.9%).

Questions about the Respondent’s Environmental Concern

In this section the interviewees were asked their level of agreement to a set of questions measuring their concern on the state of the environment in Macao, as well as the role of the government in dealing with environmental issues. As such, 84.7% of the respondents considered environmental issues to be very important on a personal level, with 12.2% of the sample undecided. Preserving and protecting the environment in Macao is the priority for 77.7% of the sample, with a 19.8% that is neutral. For a relevant segment of the sample (42.8%) the government is doing enough to enforce environmental rules and regulations, but on this issue it has to be mentioned the relevant part of those who do not have a clear standing, accounting for 22.8% of the respondents. The analysis shows that there is correlation between the respondents’ values on environmental protection and intention to purchase. For instance, in this study respondents who felt environmental issues in Macao to be very important ($r = -.209, p = 0.01$), and those who perceived that preserving and protecting the environment should be one of the top priorities ($r = -0.222, p = 0.01$) tend to have positive intention to purchase green products in the near future, while those respondents who agreed that the Government is doing enough to enforce environmental rules and regulations, are those more willing to pay a higher price for a green product ($r = -.254, p = 0.01$).

Questions about Characteristics of Green Products

A section of the questionnaire intended to capture the opinion of the respondents concerning a series of different characteristics of green products. When asked whether green products are good for the environment 80.9% of the respondents agreed with the statement. The majority of the respondents (58.2%) think that using green products communicates to other a positive image. More than half of the respondents (57.4%) agree that green products have better quality or performance compared to standard product, while 31.5% is neutral. When it comes to price 2/3 of the respondents (66.5%) of the respondents agreed that green products are more expensive than conventional products. With regard to availability, 1/3 of the sample (32.9%) reported difficulties in finding green products in shops and supermarkets, while a significant part of the sample (29.0%) kept neutral. Half of the respondents (50.0%) stated that green products lack of promotion in Macao, with 30.9% of the sample not sure about promotional initiatives.

Intention to buy and willingness to pay higher prices

The questionnaire then captured the intention of the respondents to purchase green products within the three months to come. Less than half of the respondents (44.8%) expressed positive intention to purchase green products, whereas 19.2% reported that they do not intend to make any purchase. A significant segment of respondents (36.0%) was not sure about their future intentions. When asked about their willingness to pay higher prices for green products, the largest segment of the respondents (44.6%) stated that their intention to purchase a green over a conventional product mostly depends on the product under consideration, whereas 22.3% of the respondents are definitely not willing to pay higher prices for going green. Over one third of the interviews (33.2%) are instead willing to pay higher prices for the sake of the environment. There is correlation between the respondents’ perceptions about green products and their intention to pay higher prices. In fact the analysis show that those who felt that green products deliver a good image of the user ($r = -.215, p = 0.01$), and those who stated that green products have a better quality or performance than conventional products ($r = -.212, p = 0.01$) are less sensitive to the higher prices.

Limitations and Further Research

As with any survey-based study, consumer attitudes and responses to survey items may not reflect their actual purchase behavior. However, several findings of this study are consistent with previous research. A limitation is that this analysis may not be representative of the whole population in Macao, and does not compare the interviewee’s

responses according to their profession. As further research it would be interesting to investigate what drives local consumers to purchase green products and what categories of products are less sensitive to price premium; these insights would eventually benefit firms that want to emerge in the green market or promote green initiatives. In any case, this study provides a foundation for more research within this area.

Conclusion

The purpose of this this paper was to explore attitude and perception of a sample of Macao residents towards green products. No significant difference was found between male and female population. The respondents gave different definitions of what “green product” means to them, that is something related to “environmental protection” (45.1%). The large majority of the sample (84.7%) showed high concern for the environmental issues in Macao, and agreed that green products are beneficial to the environment (80.9%). The green versions of conventional products in Macao are perceived to be overpriced (66.5%), however most of the respondents (54.0%) stated that they had purchased green products in the past, although such products often lack of promotion (50.0%) and are not always available (32.9%) in local shops. While the tendencies reported by other studies related to attitude and perception were here too noticed, this study offers new elements of interest. Noteworthy is that a relevant segment of the sample (22.8%) is not sure whether the products purchased in the past can be considered green products, additionally, some of the respondents (13.7%) thinks that consumers may not be clear about what green products really are. This is an important result that indicates how some consumers segment may lack basic knowledge about the environmental friendliness of their purchases. When it comes to price, as mentioned earlier, 66.5% of the respondents agreed that green products are more expensive than conventional products, yet 44.8% of the sample expressed positive intention to purchase green products in the near future. Unlike similar studies where the consumer is asked the intention to buy or not green products, this research has included the possibility that the paid premium may depend on the product itself. As such, when asked about the willingness to pay higher prices for a green product, a large part of respondents (44.6%) stated that their intention to purchase depends on the product under consideration. Another important outcome relates to the availability of green products in the territory. As such, 32.9% reported difficulties in finding green alternatives to convention products in shops and supermarkets; noteworthy is that 29.0% of the sample is not sure whether green products are currently available in local stores. When it comes to promotion, as noted, 50.0% of the respondents stated that in Macao green products lack of advertising campaigns; and an additional 30.9% of the sample is not sure about promotional initiatives.

To conclude, consumers in the ex-Portuguese colony generally show positive attitude towards the environment and exhibit positive intention to make environmentally friendly purchases. They think that the local market currently doesn't offer many green alternatives to conventional products; consumers also perceive green products to be high-priced but still, they are willing to pay a premium for going green although this premium varies by product category. Thus, the results of this study lead several conclusions regarding the pricing of green products, results that would be of interest to organization promoting green initiatives and products in Macao. Thus, by being sensitive to the specific attitude towards green purchases, organization would be able to better predict the behavioral patterns of the local consumers.

References

- [1] Cherian, J., & Jacob, J. (2012). Green Marketing: A Study of Consumers' Attitude towards Environment Friendly Products. *Asian Social Science*, 8(12).
- [2] Durif, F., Boivin, C., & Julien, C. (2010). In search of a green product definition. *Innovative Marketing*, 6(1).
- [3] Flick, U. (2009). *An Introduction to Qualitative Research*, Sage Publications, London.
- [4] Finding the green in today's shoppers Sustainability trends and new shopper insights (2009). Deloitte Consulting LLP. Retrieved on June 08, 2014 from <http://www.deloitte.com>

- [5] Kale, S. H. (2006). Internal Marketing: An Antidote for Macau's Labor Shortage, *UNLV Gaming Research & Review Journal*, 2(1), 1-11.
- [6] Jain, S. K., and Kaur, G. (2004). Green Marketing: An Attitudinal and Behavioural Analysis of Indian Consumers, *Global Business Review*. Vol. 5
- [7] Ginsberg, J.M., Bloom, P.N., (2004). Choosing the right green marketing strategy. *Sloan Management Review* 46, 79–84.
- [8] Lampo, A., Gregori, G. L., Cardinali, S., & Temperini, V. (2012). Critical development of green marketing in the hotel industry: Macao case study. *SGBED, India*.
- [9] Lampo, A., & Lee, L. (2011). Macao: A Study on the Impact of Global, Regional and Local Forces, *SGBED, Singapore*.
- [10] Laroche, M., Bergeron, J., Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6).
- [11] Lee, L., (2011). Opportunities for the higher education sector in Macau, *AngloHigher*, Retrieved on May 08, 2014 from <http://www.anglohigher.com>
- [12] Ottman, J. A., Stafford, E. R., & Hartman, C. L. (2006). Avoiding green marketing myopia. (Cover story). *Environment*, 48(5), 22-36.
- [13] Orange, E. (2010). From Eco-friendly to Eco-Intelligent. *Futurist*, 44(5), 28-42.
- [14] Polonsky, M. (1994). An Introduction To Green Marketing. *Electronic Green Journal*, N.PAG.
- [15] Sachdev, S. (2011). Eco friendly products and consumer perception. *International Journal of Multidisciplinary Research*; Vol.1(5).

“Contact author for the list of references”

**Private Ordering and Sustainability Goals: Concrete Sustainability Deliverables (CSDs)
and Virtual Proximate Communities (VPCs) as Pathways Toward Effectiveness**

*Edward A. Morse, morse@creighton.edu
Vasant Raval vraval@creighton.edu
Creighton University, Nebraska – USA*

Private Ordering and Sustainability Goals: Concrete Sustainability Deliverables (CSDs) and Virtual Proximate Communities (VPCs) as Pathways Toward Effectiveness

Abstract

Based on voluntary acceptance by interested parties, private ordering – distinct from public ordering or the law – is founded in consensus built by active players in a supply chain, setting up social norms for the self-regulation of activity by the participants involved. This paper provides a strong basis for the adoption of private ordering as a means of achieving sustainability goals. Following a discussion of issues surrounding the definition and implementation of sustainability programs, we suggest the use of private ordering as a mechanism in achieving sustainability goals. Specifically, we discuss variations of ethos-based private ordering and their limitations in the sustainability arena. Alternatively, we suggest ways in which private ordering integrates inter-organizationally the mode of behavior of stakeholders that potentially leads to effective sustainability programs even across national boundaries where legal means would likely fall short. We conclude with opportunities and challenges of private ordering in the sustainability domain.

1. Introduction

Sustainability movements often focus their efforts on initiating positive changes through legislation or through charitable efforts. NGOs have been particularly influential in bringing change through environmental, health, and human rights initiatives. However, profit-seeking firms are also important participants within the sustainability movement. By tapping into a growing consciousness among consumers, investors, and employees, firms are adapting their business models to take into account environmental, cultural, and economic factors that are intended to improve the wellbeing of others.

This attention to the wellbeing of others often allows these firms to enhance their own economic wellbeing. Sustainability demands can be initiated from different locations within the commercial ecosystem, and meeting them offers a possibility for different kinds of economic benefits. On the supply side, sustainability concerns may provide an advantage in the capital markets. Some investors are using sustainability practices as screening criteria for capital allocation, although sometimes they may describe this screen under the broader rubric of social responsibility (Singer and Tonello, 2013). Firms might also realize a labor market advantage for sustainability practices, as some employees prefer to work at firms with sustainability commitments (Berger, Cunningham, and Drumwright, 2007). On the demand side, customers¹ are also impacting the content of the marketplace by making purchasing decisions informed by values that transcend traditional economic considerations of quality and price.

A growing body of experience with profit-seeking firms seeking to embrace sustainability goals suggests that their role is becoming quite substantial. However, ambiguities in the parameters of sustainability present significant challenges for defining and measuring sustainability targets, whether in the public sphere or through private ordering efforts. This article seeks to explore that ambiguity and outline some significant implications for the efficacy of achieving sustainability goals. Private, profit-seeking firms are indeed valuable and probably indispensable partners in the pursuit of sustainability goals through private ordering. Among other things, private ordering through profit-seeking firms has the potential to diffuse conflicts that make rulemaking impractical, overcome jurisdictional boundaries that make rulemaking ineffectual, and create economically viable outcomes that might not result from purely charitable activities.

The article is organized as follows. Part II explores the ambiguous nature of sustainability claims and the implications of that ambiguity toward the pursuit of sustainability goals. Because sustainability concepts often entail tradeoffs about wellbeing that also include predictions about the future, they often raise conflicts between interest groups (e.g., environmentalists vs. employees displaced by stricter regulation). We argue that private ordering approaches are particularly useful because they avoid the need to resolve political conflicts over competing value

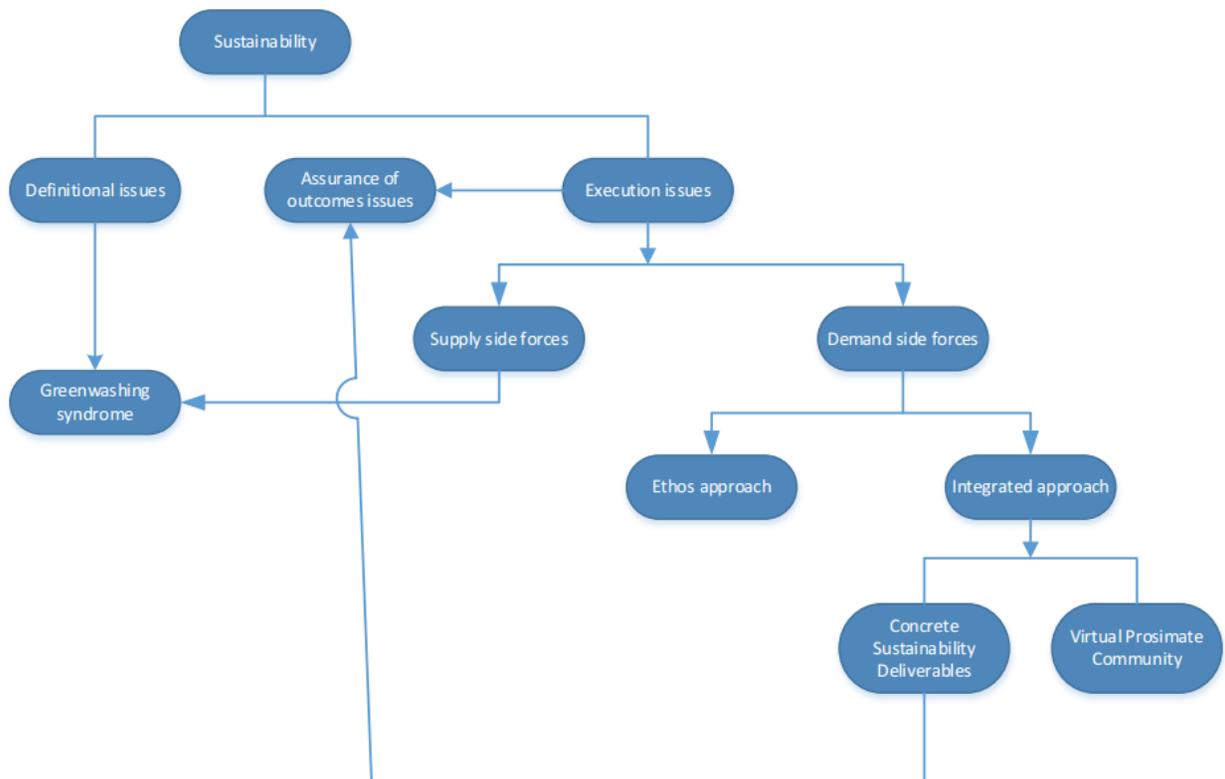
¹ We use the term “customer” here as a more inclusive term that encompasses consumers and industrial purchasers, as decisions from both types of purchaser can impact the market for goods that incorporate sustainability goals.

propositions. They also offer other advantages in a global marketplace, including overcoming jurisdictional and practical barriers to legislation and flexibility to adapt to local conditions, thereby avoiding unintended consequences that likely follow rule-based solutions.

In part III, we categorize and explore two different models that for-profit firms use to capitalize on sustainability concerns. One model focuses primarily on ethos (reputation) through charitable deeds or other contributions to sustainability goals (such as reducing outputs of pollutants, recycling, etc.), which can be marketed to important constituencies. The other model focuses on integrating specific sustainability claims into their products or services being sold, usually through branding recognizable by consumers that reflects values transmitted through the supply chain. The latter approach tends to closely align the interests of the firm with the interests of its customers, which we deem more likely to achieve sustained impacts. When this alignment does not exist, we argue that competitive forces create incentives for divergence from the firm’s commitment to sustainability goals, which can be overcome only through particularly strong internal commitments reflected in the corporate culture.

Finally, part IV concludes with a brief discussion of some closing observations, including other challenges presented by private ordering regimes that may limit their achievements. These include the possibility that private ordering solutions involving collective action may inject competitive concerns impacting smaller firms, which also deserve consideration. Private ordering approaches are no panacea, but those committed to sustainability issues would do well to recognize the potential to achieve real progress through these nimble channels, even though they may fall short of systemic solutions that some may ideally prefer. Figure 1 presents an overview of issues and sustainability approaches we discuss in this paper.

FIGURE 1: AN OVERVIEW OF SUSTAINABILITY ISSUES AND APPROACHES



2. Defining Sustainability: The Ambiguity Problem and the High Stakes for Legislated Solutions

Variable parameters for sustainability claims present a fertile field for disagreement that is not easily mapped. Sustainability involves a broad range of impacts, including environmental, cultural, and economic considerations.² Each of these impacts potentially involve normative claims that must also be placed within a temporal context that includes predictions about the future, as those impacts are evaluated in relation to human wellbeing.³ As will be discussed below, private ordering approaches offer advantages over legislative approaches for pursuing sustainability interests, including the diffusion of conflict over competing value propositions, as well as a reduction in negative externalities that frequently accompany rule-based solutions.

a. Definition and Measurement

Sustainability has crept into our common language, but precise definitions are hard to come by. As one commentator has observed:

In modern political discourse, the term “sustainability” is frequently used, but lacks a common definition. The lack of shared meaning likely results from confusion as to whether it is possible to give an empirical scientific or economic account of sustainability (for example, can we prove, as an objective matter, that a policy or practice is not “sustainable”?) and because there is widespread disagreement on the potential normative accounts (Tsosie, 2013).

On the economic front, some commentators argue that sustainability ultimately must involve making a profit (Inglis, 2013). Profitability considerations undoubtedly constrain the pursuit of sustainability goals; in the long run, businesses without profits fail. An external “market for virtue” is one way of conceptualizing the economic realities of the demand for attention to sustainability concerns (Vogel, 2005). But variability in this demand explains differential practices among firms. It is likely that some markets are more sensitive to sustainability concerns than others, making it possible for firms targeting them to profit from their behavior (Berger, Cunningham, and Drumwright, 2007). For these firms, profit seeking and sustainability goals are complementary goals, rather than competing ones. For firms in other markets, the ability to pursue sustainability commitments requires more careful assessment of their impact on the firm’s competitiveness in serving both external and internal markets. For example, industries with significant environmental impacts may face severe competitive pressures, perhaps even from international sources, that make it costly to depart from standard practices.

Although some firms claim to be led by their social commitments, thereby adopting a so-called “social values-led model”, those firms must ultimately find a viable market for its products or services. As Berger and her colleagues (2007, p. 142) observed, “The primary challenge of the social values-led model was to establish the authenticity of its business purpose and goals. It had to survive, find a segment, and invent or develop a product or service so as to prosper and advance its noneconomic mission.” In contrast to the social values-led model, Berger and her colleagues characterize firms that find a way to successfully integrate sustainability commitments into a profitable and enduring business model as adopting a “syncretic stewardship model”, which reflects their ability to balance the sometimes competing demands between profitability and the needs of other constituencies (Berger, Cunningham, and Drumwright, 2007).

Although profit is clearly important, critics have pointed out that conventional financial accounting models fail to encompass all of the costs associated with an activity. If firms are permitted to externalize some costs, such as pollution, this overstates profitability measures based on traditional financial accounting principles (White, 2009).

²See Gwendolen B. White, SUSTAINABILITY REPORTING 5 (2009) (“The definitions of corporate sustainability have in common the long-term focus on an organization’s environmental, economic, and social impacts.”)

³ See id. (“The movement to incorporate sustainability into business practices is a response not only to counter the negative environmental effects of industrial and commercial activity, but also to evaluate the economic and social effects of industrial and global population growth.”)

Consequently, these firms are allowed to continue operations based on a false sense of reality, in which all costs of continuing them are not being borne by the owners.

Rewriting laws to require firms to internalize these costs is an ideal that has broad appeal within the sustainability movement. NGOs have invested considerable sums in lobbying efforts. However, that approach is fraught with difficulty, as problems of definition and measurement must be resolved, which involve significant normative judgments and commitments. For example, the act of defining or classifying an output as pollution can be far from straightforward, as illustrated by the recent case within the United States over whether carbon dioxide could be considered a pollutant subject to regulation by the Environmental Protection Agency under the Clean Air Act. Once a pollutant is defined, the extent to which it is tolerated or the practices for managing it involve significant normative considerations, as these matters involve balancing various human goods (e.g., environmental quality and threats to human health vs. economic development and its accompanying benefits for wellbeing). Environmental laws and the vigor of their enforcement vary considerably among sovereign nations and even among localities within nations; different normative commitments and different competitive positions in the global economy contribute to these variations.

In an influential report entitled “Our Common Future” by the World Commission on Environment and Development (WCED, 1987), “sustainable development” is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” This concept bears some resemblance to the approach in the Hicksian definition of income, which reflects the notion that what you can draw out cannot exceed the corresponding growth in value if one is to maintain the store of capital for the future.

The physical environment and human culture are repositories for past social commitments and practices that are transmitted across generations. Ideally, those practices should allow human flourishing and wellbeing over a longer-term horizon. To be sure, these commitments reflect strategic considerations and investments that transcend current demands for consumption, and which look to the needs of the future. That may indeed require attention to data that extend beyond the boundaries of profitability measurements that are based on financial accounting concepts applied in quarterly or annual assessments. However, we also know that judgments about the future often prove to be inaccurate; even so-called experts are not immune to the challenges of predicting the future, which are discussed below.

b. Perils of Predicting the Future

The focus on “the ability of future generations to meet their own needs” in the WCED definition above potentially embraces a broad range of topics, some of which are unknown. The availability of material resources can certainly affect the viability of future generations, but cultural and developmental aspects of human thriving in the present also count heavily in any realistic calculus of future demands. Current champions of corporate sustainability, such as the Conference Board, also view sustainability as embracing a strategic, long-term perspective about the future in formulating relevant factors, which span a broad range of topics.

But predicting future impacts and designing strategic responses to address them are activities fraught with uncertainty. Changes in technology, consumer preferences, and other factors can have transformative effects on the future demand for resources. In turn, newly formed demands may also be met by previously unimaginable changes in the form or even the supply of raw materials. Focusing only on current assumptions about limited supplies will likely miss important changes arising from human creativity, innovation, and research, which can expand those supplies either through new discoveries, new technologies, or both.

For example, aluminum was once viewed as a rare element, more valuable than gold. Scientific discoveries made it possible to extract aluminum from bauxite, an abundant material that can easily and efficiently be converted into pure aluminum metal (Waller, 2007). As a result, that metal has become widely used for industrial and consumer applications.

Artificial lighting presents another powerful example. In his recent book, *KNOWLEDGE AND POWER*, George Gilder (2013) recounts research by Yale Economist William Nordhaus that shows how technological advances have reduced the cost of lighting our homes a million-fold between the mid-18th century and today. As Gilder observes, “The labor cost of light plunged, with gas light costing one-tenth as much as candlelight and kerosene light one-tenth

as much as gas light. Fossil fuels were the salvation of the whales. The arrival of electricity in the 1880's produced another thousand-fold drop."

As a result of these cost savings, the demand for artificial lighting has grown significantly, and with it new expectations of the requirements for human thriving. Prior generations could not have conceived of the extravagance of light available at will throughout the night. Even if they could have imagined it, they might not choose to fund the desires of a future generation at the expense of their own wellbeing.

The role of whale oil in the evolving history of light production provides useful illustration of difficulty of applying sustainability considerations in a technologically dynamic environment. Whales were originally viewed as a significant resource for food (which continues today in some cultures), and their oil was desirable for making light. If harvested responsibly, whales could also be viewed as a sustainable source for these human demands because they are renewable.

But if whales are over-harvested, sustainability would be threatened and this resource would not be available to meet future human needs. If human populations and/or their demands increased at a faster rate than the whale population, this would present a grave challenge for humanity to consider. As we know, the impetus for change can be difficult to realize. Predictions of dim prospects for the future (both figuratively and literally) may not be sufficient to change laws or regulatory policies in order to reduce whale harvests, which would likely involve adverse effects to our current wellbeing. Those effects would likely involve rising costs, with those humans who are less-well-off spending more time in the dark. This, in turn, might have other negative consequences, including lower educational outcomes for poorer citizens, leading to greater social divisions. Geographic and cultural differentials might also emerge, since equatorial regions with uniform days could enjoy an advantage over higher latitudes required to endure seasonal disadvantages in daylight.

Visionary beliefs about future human satisfaction from communications and other sensory enjoyment of whale communities would, as a practical matter, be hard to sell to political decision makers faced with a populace unhappy about looming darkness. And many within that population might not be in an economic position to hold out for those future benefits, if indeed they did materialize.

Other practical problems would also abound in addressing this problem by conserving the whale supply. Even if one could successfully influence his or her own government, firms from other countries may still overharvest the whales, as this activity occurs in the global commons beyond the territorial waters of sovereign nations. A whaling moratorium treaty is only as effective as the sovereign power to enforce it. It is easy to anticipate the policy arguments: domestic firms will complain that the moratorium only hurts the domestic economy, as whale oil customers will choose to import from foreign suppliers to keep their lamps from going dark. Those concerned about distributive justice will worry about the disproportionate impact on the poor, who must pay even more for this scarce commodity. Proactive international cooperation can take years to achieve, and even when a treaty is enacted, enforcement still presents a continuing challenge, not only for signatory nations, but also for those nations who do not sign.⁴ Short of a crisis to induce change, powerful inertial forces favor the status quo.

Significantly, this potentially disastrous scenario was not averted by protests leading to government intervention. A whaling treaty was not enacted until 1946, many years after whale oil was a dominant fuel or food item (Darwahl, 2013). As Gilder (2013) notes, the entrepreneurial development of substitute goods – in this case, fossil fuels -- saved the whales. This solution came from sources we now consider to be nonrenewable, and which contributes other negative environmental impacts along with many human benefits as a source of energy.

Conservation practices are particularly urgent when the future of animal life is involved. The possibility of losing a resource for posterity, particularly when we may not know the future value of that resource, merits serious consideration. Taking precautions reflects an appropriate humility about our current state of knowledge. Thus, the difficulty of predicting the future cuts both ways, as it includes an understanding of our future sense of loss over a part

⁴ See the International Convention for the Regulation of Whaling (1946), which is administered by the International Whaling Commission. See <http://iwc.int/convention.htm>. Some countries continue to allow whaling, though in limited quantities. Even in the United States, Alaskan indigenous communities are permitted to whale. [Add cites to the International Whaling Commission.]

of the created order. But choosing fossil fuels to meet the human need for light was arguably better than the alternatives of living in darkness or killing whales or perhaps harvesting other mammals for this purpose. Nonrenewable resources can become a bridge to better solutions in the future that depend on human creativity. That kind of creativity is often positively connected to the kinds of human growth opportunities that wealth creates, such as education and leisure. Decisions to sacrifice current wellbeing thus present serious matters indeed, as the current sacrifice could also affect the viability of the seeds of future creativity, which are needed to solve the problem of scarcity.

c. Other Value Conflicts (and Hazards of Legislation)

Even when future predictions are not so difficult (e.g., when we know that a practice will harm some human good, causing damage or death), choices under the sustainability umbrella can also involve value judgments that are highly contestable. The fruits of this contest can be seen on the international stage, where conflicts among developed and developing nations arise in standards for environmental quality, workplace safety, and even human development, all of which impact sustainability goals.

For example, adopting air quality standards suitable for firms in the United States or the European Union might prove disruptive and debilitating to a developing country. When faced with the immediate prospects of unemployment, the marginal cost of additional respiratory disease on account of factory effluents might seem like a tolerable price to pay in the short run, if the alternative is a lack of resources needed to sustain basic human needs. Environmental regulations in the United States are consciously designed based on considerations that include tradeoffs between the costs and benefits of regulatory action, including economic considerations on profits and employment (Masur and Posner, 2010). Those regulations include difficult problems of monetizing harms, which can vary significantly across cultures. Ultimately, the decision to stop at any point where a risk is above zero will present a matter for human judgment, which is not easily resolved.

Centralized decision makers drafting rule-based solutions cannot comprehend the full impact of coercive measures on human wellbeing. Granularity problems abound in all rulemaking efforts. Laws designed to prevent environmental harms can easily be overbroad, preventing desirable activities, too. For example, legislation targeting reductions in greenhouse gas emissions or encouraging renewable sources may raise the price of electricity, adversely impacting industrial production and employment (Castle, 2014). Government policies favoring the conversion of food sources like corn into renewable biofuels has likely raised food prices, having a particularly detrimental impact on the wellbeing of the poor (Dharwal, 2013). Conservation measures to protect fish species may deprive farmers of water needed for irrigation, putting them out of business and impacting the human food supply.⁵ What may be viewed as a sustainability measure directed toward one good could thus threaten another good in unintended ways.

This problem is not limited to environmental regulations; economic legislation also has unintended consequences. For example, minimum wage laws may help raise current income for those who have jobs, but they may also reduce the supply of jobs available.⁶ Younger, inexperienced workers may also suffer due to the increased difficulty of getting on the proverbial employment ladder, thereby losing opportunity for valuable training or experience that is critical to future advancement.

From the lofty seats of government policymakers, those collateral effects may not be fully known until they work their way through the mechanisms of the marketplace, which include the particular knowledge of its individual participants. Even experts may disagree on the predicted outcomes (Samuelson, 2014). But because they are imposed by legal coercion in a manner that is not tailored to address all potentially relevant factual variations, collateral effects are unavoidable.

In addition, legal coercion is effected by jurisdictional limits. A legal change implemented in one jurisdiction may create a competitive disadvantage to the extent that it is not applied elsewhere (Belleville, 2013). Legal coercion

⁵ See, e.g., California's Man-Made Drought, Wall Street Journal, Sept. 2, 2009 (discussing water reductions rooted in the Endangered Species Act affecting irrigation water for farmers in the San Joaquin valley).

⁶ See Congressional Budget Office, The Effects of a Minimum-Wage Increase on Employment and Family Income at 9 (Pub. No. 4856, Feb. 2014) (estimating increased income but 500,000 lost jobs from proposed minimum wage increase), available at <http://www.cbo.gov/sites/default/files/cbofiles/attachments/44995-MinimumWage.pdf>.

may be well suited to solving a “tragedy of the commons” where the harms are diffused, and where collective response through agreement is impractical. But that “tragedy” needs to be well comprehended and understood, along with the consequences of averting it. This is no mean feat. In contrast, voluntary solutions focusing on cooperative private ventures can also contribute to sustainability goals and practices, while simultaneously lowering the high risk associated with legislated solutions.

d. Private Ordering as Diffusing Mechanism

Private ordering presents a promising alternative to this all-or-nothing, high stakes regime of legislating change. First, private ordering does not require control of the legislative or bureaucratic apparatus within the government – which is a formidable obstacle for most kinds of legal change. In the business context,⁷ a private ordering solution may simply involve a cooperative venture between two or more parties who share a particular sustainability commitment, or for whom the commitment is at least not objectionable.

Second, in a system based on private agreements, the effects of those agreements can transcend jurisdictional boundaries in a manner that the laws and regulations of a sovereign nation cannot.⁸ That cross-border potential is not unlimited and should not be overstated. For example, a potential for breach by one of the parties in a supply chain may disrupt its effectiveness; addressing that breach may entail access to foreign laws and/or government institutions. Even private adjudication or arbitration may ultimately depend on legal institutions of the sovereign state for enforcing that judgment against a recalcitrant defendant. Thus, law and government involvement still serves as a boundary on the edge of private ordering; the threat of escalating government regulation or intervention may also serve as an additional force to encourage parties to avoid and resolve conflicts (Morse and Raval, 2012). Nevertheless, economic incentives to comply are often much more powerful than these coercive threats, particularly when ongoing relationships are contemplated, thus producing continued cooperation apart from the law.

Third, the voluntary nature of private agreements increases the likelihood of beneficial outcomes for both parties to the agreement, as their voluntary exchange fuels mutual benefits for them. They can be tailored to meet the needs of individual participants and circumstances in a manner that codified rules cannot.⁹ Of course, private ordering is not without unintended consequences – voluntary participants can sometimes face adverse consequences because they have imperfect knowledge (Haight, 2011). But private ordering typically allows agreements to be modified much more rapidly and efficiently than through more cumbersome processes of legislative or regulatory changes – and this differential grows if the consent of multiple nations might be required. The limited and voluntary nature of the private ordering relationship reduces the risk of harmful outcomes to others based on these judgments; people get to assess the tradeoffs for themselves and participate when it is useful to them.

This approach may not produce the kind of collective changes that some might desire, but it can make a positive contribution toward achieving sustainability goals. Its importance is demonstrated by the extent to which for-profit firms are paying attention to environmental, social, and community obligations that extend beyond those otherwise imposed by law.

3. Private Options for Pursuing Sustainability Goals

The above description of private ordering presents a sketch of key advantages. However, approaches toward private ordering can be as variable as the creativity of its human participants. A closer examination of some of these

⁷ Of course, charitable organizations also operate within a private ordering model when they also engage in good works funded by private donors. Such activities may contribute to sustainability goals, but they continue only as long as they can generate new inputs from benefactors.

⁸ For example, in response to recent tragedies involving textile workers in unsafe foreign factories, textile firms have recently joined together to provide for enhanced safety standards in factories used by their suppliers.

⁹ See *The SEC v. Goldman Sachs: Reputation, Trust, and Fiduciary Duties in Investment Banking*, 37 J. Corp. L. 529, 548 (noting that “regulations may codify rules for market exchanges that, while detailed and enforceable, fail to account for all the subtleties and nuances of real transactions”)

approaches might yield greater insights into their efficacy in pursuing sustainability goals, as well as some significant problems arising in this context. An extensive literature already exists about the role of charitable organizations and NGOs devoted to sustainability causes, which also utilize private ordering. However, in the discussion below, we focus primarily upon for-profit firms and their strategies for pursuing sustainability goals, and we identify two general approaches: (1) an ethos-building approach, which is rooted in top-level disclosures about sustainability commitments, and (2) an integrated approach, which attempts to incorporate sustainability commitments directly into the product or service the firm is selling.

Although an “ethos-building” approach is quite common, we argue that its utility is limited by competing concerns that are likely to arise within the firm, particularly when the firm is a late-adopter rather than an innovator when it comes to sustainability commitments. If sustainability commitments are ultimately viewed as a cost incurred to please a stakeholder, rather than as a source of profit or other economic benefits, there are likely to be significant pressures to reduce or constrain those commitments. Moreover, ethos approaches that are rooted in formal disclosures face a crowded marketplace, which make it difficult to achieve any distinctive advantages from sustainability behaviors.

Integrating sustainability features into goods or services offers comparatively greater potential. By incorporating what we call “concrete sustainability deliverables” (CSDs) into a product, firms are able to provide a direct link to customer-based support for defined sustainability practices, thereby aligning their interests with the commitments of their customers. Further, by linking the interests of individual firms into “virtual proximate communities” (VPCs) through another private ordering tool -- independent certification programs – this approach leverages the collective ability to tap altruism and conscientiousness in the consumer marketplace through branding, which thereby enhances the quality of sustainability outcomes.

A. Ethos-Based Private Ordering

For some business firms, a commitment to sustainability is an important part of their reputation and identity. As noted above, that commitment may be generated from many different social, economic, and/or cultural forces, including advantages from attracting investors and employees who share similar commitments or from tapping into positive demands from consumers or customers. Moral, religious, or social influences, including peer pressure from others, may also serve as catalysts to induce leaders within the firm to pursue sustainability goals (Berger, Cunningham, and Drumwright, 2007) or to at least maintain an appearance of doing so in order to avoid negative pressure or publicity (Delmas and Burbano, 2011).

Traditional corporate governance models tolerate considerable discretion in pursuing activities that may not necessarily maximize short-term profits. By focusing on the long-term implications of decisions to the wellbeing of the company, directors and managers have flexibility in choosing to do sustainability-related activities affecting other stakeholders in the enterprise, including labor, environmental, or community interests. Lynn Stout (2012), an ardent proponent of managerial flexibility and corporate autonomy concerning the expenditures of corporate resources, asserts that a putative duty to maximize shareholder value to the exclusion of other considerations is a myth:

The notion that corporate law requires directors, executives, and employees to maximize shareholder wealth simply isn't true. There is no solid legal support for the claim that directors and executives in U.S. public corporations have an enforceable legal duty to maximize shareholder wealth. The idea is fable.

But in most cases, one need not accept Stout's assertion to justify the pursuit of activities such as charitable giving, community engagement, and sensitivity to environmental and human rights concerns. Often, a plausible claim can be made that doing good allows the firm to do well. Giving to local charities, engaging with the community, treating employees well, and being a responsible steward of the environment engenders goodwill, affecting not only the market for customers and employees, but also government regulators who influence the environment in which the firm does business. As long as these activities are pursued on a modest scale and do not substantially affect the firm's ability to generate positive returns for its investors, developing a positive corporate ethos committed to sustainability practices can simply be good for business. Unfortunately, perceptions are not always rooted in objective reality, which creates a serious vulnerability for the ethos-based approach.

A.1 Growing sustainability commitments in the midst of ambiguity

Ambiguities in the parameters of sustainability discussed above in part II also present a formidable challenge for those seeking to define and measure progress on sustainability targets and goals. Comparisons among firms are also problematic without adequate means to measure the strength of that commitment and its effectiveness, which can span a wide variety of factors. Even if the disclosure address specific commitments, it can be difficult to assess the overall impact of those commitments. A recent study funded by the Conference Board identified 76 environmental and social practices as potentially connected to sustainability (Singer and Tonello, 2013), which suggests a broad range of commitments indeed.

Nevertheless, an increasing number of firms are referencing some kind of sustainability-related commitments in disclosures that supplement more traditional financial information. As of 2009, more than 75 percent of S&P 500 companies had some discussion of environmental and social policies on their corporate websites (Delmas and Burbano, 2011). Globally, a study by KPMG in 2008 reported that almost 80 percent of the “Global 250” issued some form of sustainability reporting (White, 2009). According to a recent paper by Ioannou and Serafeim (2011), the number of firms using the Global Reporting Initiative guidelines to report sustainability information has grown from 44 in 2000 to 1,973 in 2010. As of March 5, 2014, the Global Reporting Initiative database includes reports from 5,971 organizations, reflecting a dramatic growth from the figures reported in 2010.¹⁰ Although some of these organizations are nonprofits, public agencies, or universities, it appears that the vast majority are for-profit companies.

Efforts to enhance accuracy and consistency of such reporting are also underway. As White (2009) discusses in her book, *SUSTAINABILITY REPORTING*, private ordering provides one approach to developing and implementing guidelines for reporting, including the SIGMA project, the International Federation of Accountants Sustainability framework, and the Global Reporting Initiative. In some cases, companies are also assessed as to the measure of their conformity to these guidelines, which generally reflect voluntary commitments.

A.2 Greenwashing

Disclosure is only part of the equation, however, as there is a further question whether that disclosure is accurate. The term “greenwashing” has emerged as a catch phrase to describe this problem of accurate disclosure in various contexts affecting sustainability claims. Clark (2013) has explained this concern as follows:

As consumer demand for socially responsible products and companies is increasing, consumer trust in corporations is decreasing. Marketers use the term “green,” “responsible,” “sustainable,” “charitable,” and words like them on a daily basis to describe their products or their companies. However, the more these terms are used, the less meaning they have because there are no standards to back up the claims. This problem, often referred to as “greenwashing,” is misleading for consumers and frustrating for businesses that try to distinguish themselves based on their social and environmental business practices.

Although “greenwashing” potentially encompasses a variety of sustainability claims, environmental considerations have played an important role in discussions of “greenwashing” behavior. Those most concerned about “greenwashing” are concerned about eroding markets for “green” products and the socially responsible investment market because the participants no longer trust in the validity of distinctive behavioral claims by firms in these markets (see Delmas and Burbano, 2011).

Allegations of “greenwashing” also illustrate the importance of properly defining the terminology for screening this kind of behavior. For example, Delmas and Burbano (2011, p. 66) claim that a firm-level example of greenwashing behavior can be found in General Electric’s “Ecoimagination” advertising campaign, which it used to promote the company’s positive contributions in the environmental arena at the same time it was lobbying to fight “new clean air EPA requirements.” But if this counts as “greenwashing”, it suggests that a firm has to support every environmental regulation in order to be “green” and that other efforts, no matter how constructive, are effectively valueless. It might be appropriate for an NGO or private monitoring and advocacy group to use such a lens or filter

¹⁰ See <http://database.globalreporting.org/search> (March 5, 2014).

to criticize a firm's behavior, but it is hardly self-evident that they should be entitled to a monopoly on the use of the "green" label. The definitional problem runs both ways, affecting both monitors and the firms, who presumably engage in public relations ca.". However, the absence of regulations in this area may be attributed to the difficulty of regulating in an environment mpaigns over these labels and practices.

Delmas and Burbano (2011, p.69) argue that a "lax and uncertain regulatory environment" is a primary driver of "greenwashing in which consensus is still emerging. In the United States, the Federal Trade Commission exercises broad authority to address matters of "unfair competition", which sometimes extends to matters involving environmental product representations. In October 2012, the FTC issued administrative guidelines to interpret terms that are commonly used in marketing products to consumers. However, the FTC cautions that these guides "are administrative interpretations ... [that] do not have the force and effect of law and are not independently enforceable." Moreover, those guides do not attempt to address "sustainable" claims.

The content of these guidelines illustrate the practical difficulty of regulating commercial disclosures, including the contestable value judgments that they reflect. Some of these guidelines require manufacturers to label products based not only on their inherent characteristics, but also on the customs and usages for the consumers who ultimately use them. For example, claims concerning recyclability must be restricted depending on whether recycling facilities are available "to a substantial majority of consumers or communities where the item is sold". Likewise, "degradability" claims must also contemplate the time frame in which breakdown will occur, which can vary based on the "customary" approach to disposing of the item. According to the guidelines, "Unqualified degradable claims for items that are customarily disposed in landfills, incinerators, and recycling facilities are deceptive because these locations do not present conditions in which complete decomposition will occur within one year."

In fairness to manufacturers, customary treatments may not be conveniently known for all locales in which a product may be sold. Moreover, practices may change in some locales based on such events as a recycling plant shutting down. For firms that use independent distributors, the locations in which a product may ultimately be distributed are not only uncertain, but changeable over time. If a disclosure becomes deceptive because of the conduct of others, does that tilt the firm's incentive away from making any such representation? After all, making no representation would avoid a costly and disruptive FTC challenge. But is that outcome good for achieving sustainability goals? And does it really serve environmental interests to find a firm guilty of deceptive labeling because consumers choose to recycle or dispose of a product in a landfill instead of composting it?

The FTC guidelines address misrepresentations made to consumers in connection with product labeling, but they do not necessarily cover sustainability claims made in other contexts. Although an expanded role for government in regulating disclosures concerning sustainability could have positive effects on practices connected with sustainability,¹¹ definitional problems remain. At the governmental level, these acts will involve political judgments about the nature and extent of disclosures that are necessary and appropriate in order to achieve some level of consistency. However, most importantly, the significance of those disclosures must ultimately percolate into the marketplace if they are to become meaningful drivers of sustainability practices.

A.3 Limited utility of disclosures

Even if corporate disclosures are improved, the realities of the marketplace limit their utility in driving enhanced sustainability practices. First, one may legitimately question how deeply corporate disclosures ultimately reach into the minds of the public who might be influenced by these practices. It is highly likely that only experts such as academics or activist groups will be expected to scour these reports, and thus their effectiveness in channeling corporate behavior will as a practical matter be limited by the type of reaction that those experts can produce in the marketplace (see Delmas and Burbano, 2011).

Market fatigue can also become a reality. If, as it seems from the data suggested above, almost everyone is talking about sustainability, conformity becomes the new norm. As a result, any market advantage from disclosing sustainability practices can be expected to diminish over time. Data from a KPMG study suggests support for this outcome: ethical considerations, not economic advantage, became the most important driver of reporting among G250

¹¹ See generally Ioannou & Sereafeim, *supra* note 49, whose research suggests that required disclosures produce a strengthening of sustainability in certain categories, including corruption and certain environmental practices.

firms in 2008; economic reasons for sustainability disclosures dropped to only 68% in 2008 as compared with 74% in 2005 (White, 2009, p. 47).

A.4 Benefit corporations: another alternative?

As a partial response to “greenwashing” concerns, corporate reformers have proposed a new kind of corporation known as a “benefit corporation”, which expressly embraces the creation of public benefits as part of its institutional mission. These corporations pursue profits and returns for their investors, and thus differ significantly from charitable nonprofits that have tax-favored status on account of their commitments to public welfare. However, in their pursuit of profit, they are also obligated to create “general public benefits”, which are defined as a “material, positive impact on society and the environment, taken as a whole, as assessed against a third party standard, from the business and operation [of the corporation]” (Clark, 2013, p. 16). Clark further asserts that they may also pursue “specific public benefits,” which are defined nonexclusively to include such matters as “providing beneficial products and services to low-income individuals, promoting economic opportunities beyond the creation of jobs in the ordinary course of business, preserving the environment, improving human health, and promoting arts, sciences, and the advancement of knowledge.”

The obligation to create these kinds of benefits arguably could be satisfied by most publicly traded companies with at least some level of commitment to sustainability or social responsibility. However, the benefit corporation is also required to deliver a narrative description to shareholders, which is also made available to the public, which describes the company’s progress in pursuing the general public benefit and/or any specific benefits it embraced. This report must also include an assessment based on overall social and environmental performance against a third-party standard, thus creating the foundation for independent assessment of sustainability claims.

Although the development and application of a third-party standard would indeed bring some additional credibility to the firm’s claims, the model legislation only defines the standards for selecting a qualified third party, rather than designating particular standards or assessors. Many third-party standards organizations are already in place to meet these selection criteria, including the Global Reporting Initiative (used by the Conference Board), GreenSeal, Underwriters Laboratories (UL), ISO 2600, and B Lab. This flexibility reflects the power of private ordering, as the marketplace is likely to reward expertise in different areas of emphasis among these private assessment firms. These assessors will presumably develop their own reputations for quality, as evidenced by a “rate the raters” report published by the consulting firm, SustainAbility.

Proponents of benefit corporations are optimistic about the effects of this kind of information assessment and disclosure model:

By assessing and disclosing the benefit corporation’s overall social and environmental performance against an independent third-party standard, shareholders and the public are provided an easy way to evaluate the company on these criteria, which for typical companies, is otherwise almost impossible to determine. [I]t is anticipated that this simplified “due diligence” tool will facilitate greater investment in benefit corporations and improve customer loyalty by enabling consumers to differentiate good deeds from merely good marketing. Over time, this has the potential to create market-driven positive feedback loops rewarding companies that adopt this higher standard of corporate governance and demonstrate higher levels of overall social and environmental performance.

The benefit corporation approach ultimately depends on private ordering for the details of a firm’s commitment, thereby avoiding government involvement in the contentious normative debate about what counts as sustainable. However, the prospects for a differential benefit from required disclosures against a third-party standard may not be so easily realized. First, as discussed above, disclosure does not easily translate into consumer goodwill. Other marketing efforts will be required, which are unregulated. As a practical matter, it seems reasonable to ask whether there will be any significant impact on consumers based on the fact that the supplier is a benefit corporation? Although a benefit corporation could add an independent assessor to provide an attest function, this option also exists for traditional corporations (see Yockey, 2014).

Second, claims of investment dollars flowing to benefit corporations (or their less-attractively named relatives, the “low-profit limited liability company” or “L3C”) must effectively be predicated on strong demand for

investments oriented primarily toward social benefits rather than returns for investors (Pearce and Hopkins, 2013). Even if benefit corporations ultimately become publicly traded, it is doubtful that the benefit corporation ultimately gives an investor more than they can already obtain through traditional sources. Investors following socially responsible investing models already have access to voluntary corporate disclosures from traditional corporations, some of which also utilize private forms of standardization and even attestation. Thus, the private ordering solution embraced by a so-called benefit corporation – disclosure and assessment against a third-party standard, developed and administered by an entity other than the government – already works for the traditional corporation, too. If more traditional corporations see the value in third-party assessment, the marketplace will likely respond, thereby further minimizing any differential benefits offered from choosing a benefit corporation.

Ultimately, this means benefit corporations are likely to resemble their traditional counterparts that are based on an ethos-driven model. Delivering on a sustainability promise through the ethos-based model could mean nothing more than giving a portion of profits to charities or the arts, funding scientific research, recycling some of the waste the business may generate, becoming more energy efficient, or reducing greenhouse gas emissions.¹² Those are all good things to do, but for an investment manager entrusted with the pension funds of retirees, those goods simply cannot be pursued at the expense of generating a return for the pensioners he or she represents. “Greenwashing” in traditional firms that claim a profit motivation may thus suit these investment advisors just fine, as it provides cover for applying their investment screens and running their sustainable investment funds.

Intermediaries such as NGOs or other watchdog groups may cast light on incongruities, but the marketplace is crowded and the claims may be dismissed because the firms and the critics are using different standards that could each be defensible. The channel for this information is thus noisy and risks becoming ignored. Ethos-based sustainability marketing may reach some consumers, though likely through channels other than the firm’s annual reports – and this is true for both benefit corporations and traditional corporations. Ethos-based marketing efforts impacting consumers are thus likely to be pursued through the same channels as the marketing of the products themselves.

Moreover, if the ethos-based approach becomes widely adopted among competing firms, the economic significance of sustainability commitments – however defined – becomes diluted. Sustainability commitments that distinguish a firm from its competitors may be capable of delivering value through tapping into the conscientious behavior of those who demand those commitments. But if most competitors say “me too”, the sustainability commitment diminishes in its utility as a tool for leveraging customers, suppliers, or employees.¹³

When it comes to making decisions about purchasing goods and services, consumers can be expected to consider characteristics of the goods and services – including features like price and quality – which they are in a position to evaluate. To the extent ethos-based claims are located remotely from the product and they fail to connect to a contribution made by this product, it stands to reason that sustainability practices will be less impactful on those consumer decisions. In contrast, firms who are able to integrate sustainability claims into their products are most likely to leverage the power of those commitments, thereby achieving genuine sustainability gains. That approach is discussed below.

B. Integrating Sustainability: Concrete Sustainability Deliverables (CSDs) and Certification Within Virtual Proximate Communities (VPCs)

Some firms have been able to develop products that integrate their sustainability commitments in a specific manner. Rather than relying only on claims which are rooted in practices with an attenuated connection to products, such as

¹² See, e.g., Conference Board 2013, *supra* note 2.

¹³ See Berger et. al., *supra* note 11, at 140, who notes that the business case model, which adopts sustainable policies when it is in their economic interest to do so, jealously guarded their market advantage: “Having realized a differential advantage in delivering virtue, business case companies were not eager for their competitors to follow them and worked to protect their advantage in the external market. On informant noted this explicitly: ‘We are trying to keep our competitors out.’” On the other hand, the firms adopting a social values-led model or a syncretic model both welcomed competitors to join in their commitments. Presumably, the syncretic model (which reflects most ethos based firms) would not mind only if they saw no real threat to their profitability.

charitable giving, supporting their communities, or recycling waste, these firms have managed to incorporate specific sustainability claims into the definition of their products.

Branding or third-party certification generally plays a significant role in that integration process. Some common examples of certifications may include Energy Star, Fairtrade, or Marine Stewardship Council certifications. These brands or certifications reflect a particular commitment to a sustainability practice that is directly related to the product sold by the firm.

Research shows that a significant number of consumers recognize these branding efforts. For example, Fairtrade International, which is the umbrella organization behind the global FAIRTRADE certification mark, reported that “nearly 6 in 10 consumers have seen the FAIRTRADE mark, and of those, 9 in 10 trust it.”¹⁴ Other market research in Canada has shown that 70 percent of consumers believe that third-party certification is the best way to ensure that a company’s claims about its products are trustworthy.

As consumers become aware of these brands and what they stand for, they become able to implement their personal support for sustainability goals through channeling their purchases toward products that bear these brands. A growing number of consumers are willing to pay a price premium for sustainability, as measured by fair trade certification. When asked to assess agreement with the following statement, “Fair trade or fair trade food and beverages are worth paying a little extra for”, participants in the United States responded as 34% (strongly agree or tend to agree) vs. 29% (tend to disagree or strongly disagree) in 2011.¹⁵ These response rates show significant growth in that willingness to spend for sustainability over 2009 figures, which showed only 17% (strongly agree or tend to agree) vs. 33% (tend to disagree or strongly disagree).¹⁶

This trend provides a strong signal to firms interested in following a sustainable path. To the extent that a significant number of consumers prefer products that reflect sustainability commitments – and they are willing to pay for that commitment – meeting that demand becomes a viable path for profit, not merely a cost that must otherwise be justified in the larger assessment of financial performance.

Consumer trust is an important component in this purchasing decision. Private branding may provide a means for making claims from sellers directly to consumers, and some firms have implemented this strategy successfully. In the case of Starbucks, for example, a general claim for “ethically sourced coffee” is followed by measuring and reporting the percentage of coffee ethically sourced during the reporting period. Starbucks thus reports on its progress toward a goal of ensuring that “100% of our coffee is ethically sourced by 2015.”¹⁷ This appears to be an example of a “concrete sustainability deliverable” (CSD) that is meaningful to its customers.

Although Starbucks will purchase some coffee that is certified as FairTrade, the “cornerstone” of its approach is “Coffee and Farmer Equity (C.A.F.E) Practices”, which it jointly developed with Conservation International to positively affect workers and environmental improvements on the farms that produce its coffee. However, even Starbucks depends on a third party – SCS Global Services – to provide verification services for compliance with its C.A.F.E. practices, rather than relying solely on its own representations. By fusing the Starbucks’ supply chain with sustainability practices, customers get some assurance that they are contributing to a “better future for farmers and a more stable climate for the planet” through buying Starbucks coffee. Another self-branding example is TOMS Shoes,

¹⁴ Fairtrade International, UNLOCKING THE POWER 3 (2012-13 Annual Report), available at http://www.fairtrade.net/fileadmin/user_upload/content/2009/resources/2012-13_AnnualReport_FairtradeIntl_web.pdf (September 3, 2013).

¹⁵ See Agriculture and Agri-Food Canada, International Markets Bureau, SOCIALLY CONSCIOUS CONSUMER TRENDS[:] FAIR TRADE, Figure 4, page 7 (April 2012), available at http://publications.gc.ca/collections/collection_2012/agr/A74-2-2012-7-eng.pdf

¹⁶ See id. It should be noted that there is wide variability among different nations in the survey. The average level of agreement (i.e., strongly agree or tend to agree) was 38% in 2011, but China (51%), India (60%), Saudi Arabia (52%), and U.A.E. (53%) were all way above this average, while nations including Japan (22%), Korea (30%), Canada (27%), and South Africa (30%) lagged significantly behind the average. However, even in these lagging nations, the total expressing agreement would still represent a significant market force to be reckoned with.

¹⁷ <http://www.starbucks.com/responsibility/sourcing/coffee> (visited September 3, 2013).

which uses its registered trademark, “One for One”, to ensure purchasers that “with every product you purchase, TOMS will help a person in need.”¹⁸ TOMS coordinates with partner organizations helping the poor across the globe and gives them shoes to assist in their missions. Each pair of shoes purchased by a consumer effectively delivers another pair to a person in need.¹⁹ Similarly, each purchase of TOMS eyeglasses results in a contribution to assist partner organizations with vision services for those in need. Here, a fused CSD is presented for the consumer, who is not merely buying shoes for herself, but also buying another pair delivered to a needy person.

While the vision contribution is not specified in TOMS published giving report, the shoe concept is particularly innovative. The style and quality of the other pair of shoes may not be identical to the pair you are buying, as TOMS focuses on matching the local needs (i.e., sport shoes rather than high heels for children), the apparent appeal involves efficiency for the consumer in integrating a sustainability goal with a purchase: buying a shoe gets you seamlessly into the company’s internal supply chain directed toward helping others. Although a customer could conceivably buy shoes cheaper somewhere else and donate the difference, TOMS provides a one-stop, seamless means to deliver this contribution that is effectively integrated into their product. Unlike the ethos-based approach, these contributions are specific and, at least in the case of the shoes, measurable in terms of their impact in a manner that makes sense to the consumer.

In contrast, consider a message that a firm gives a percentage of its net profits to a worthy cause. Endangered Species Chocolate, sold in Whole Foods markets, advertises on its product label that “We Donate 10% of our net profits to environmental groups that are FOCUSED on wildlife consideration and habitat preservation.”²⁰ Although this might be concrete, in the sense that it is measurable, the magnitude of the impact is not as readily apparent to the consumer. The net profits are determined after such costs as executive salaries and bonuses are deducted, and they are ultimately limited by the economic success of the firm in marketing its product. However, a percentage of profits might nevertheless be viewed as a CSD to some consumers who are motivated by endangered species concerns and buy the product because this claim is associated with the purchase.²¹

Other firms don’t rely on their own brands, but instead focus on external brands that reflect certification by a third party of the bona fides of their sustainability commitments. As noted above, Fairtrade certification presents a common example of this kind of external brand adoption. A small coffee vendor may lack the ability of a multinational corporation like Starbucks to partner with a conservation organization in developing its own sustainability standards and commitments, but it can deliver a product with similar sustainability traits by relying on a familiar brand from a third-party certification. That certification entails support for specific claims, such as an organic pedigree or a commitment to paying prices to producers that support sustainable production practices.

The seller may initiate the demand for certification as a means to reassure his customers that he shares their sustainability commitments. The local reach of many firms provides an effective constraint on their ability to enforce agreements with others remote from them, particularly when those agreements reflect characteristics that may not otherwise be detected in the quality of the goods. By partnering with third parties who certify compliance, the local seller is able to appropriate the trust associated with a global brand, while potentially still holding out the possibility of developing local goodwill and otherwise retaining its own business autonomy, features that otherwise would likely be compromised through a franchise or dealership arrangement.

Thus, private ordering in this context shows its strength by allowing local firms to cooperate, scaling international borders, bypassing entrenched government powers, and bridging the gap between consumers and their sustainability goals without losing their business autonomy. Through the power of contract, the attestation of a trusted intermediary, and the mutual incentives created by cooperation, a virtual proximate community is created for the limited purpose of cooperative production of a desirable good using agreed-upon metrics for sustainability. That good, along with the associated sustainability commitments, becomes the natural output of these ventures.

¹⁸ <http://www.toms.com/our-movement/>

¹⁹ http://www.toms.com/media/TOMS_Giving_Report_2013.pdf

²⁰ Label on file with authors. For further information, visit the company website, ChocolateBar.com.

²¹ To some extent, the fact that the package is sold by Whole Foods, which also has a reputation for concern about environmental and social issues, may reinforce the consumer’s willingness to act upon this representation.

This virtual proximate community has several relevant characteristics that make it effective. First, it avoids some of the burdens associated with obligations from competing sovereigns seeking to control transnational operations. Unlike the multinational corporation, which may face complexity from competing obligations to pay taxes or satisfy regulatory burdens in multiple jurisdictions, this form of cooperative venture leaves certain production or service responsibilities to local firms, thereby avoiding the encumbrances of additional compliance burdens. The primary international actor, the certification intermediary, is likely a nonprofit organization that avoids international tax burdens and engages only in assembling and assessing information, rather than the sale or distribution of goods.

Second, this virtual community should be open to new firms who share these commitments. Unlike a cartel, in which participants exclude others in order to reap consumer surplus for themselves, this approach should reject a monopoly power over virtue. By willingly adding new firms who embrace the brand, this injects new competition into the marketplace, benefitting consumers. However, while the brand is small and unknown, it also has the salutary effect of increasing awareness among consumers and growing that demand. Although this might mean that other firms may be competing in the local marketplace, all participants may expand access to customers attracted by the sustainability component of the product. Apart from banding, it may be difficult to reach those customers through other means, including ethos-based marketing.

Third, this virtual community is responsive; stakeholders can agree upon new or revised requirements as they relate to targeted sustainability goals in the changing world, and they can implement them in a manner that can be measured and scaled to achieve those goals effectively. These virtual communities provide a laboratory for experimentation which allows mistakes to be corrected and learning to improve the ecosystem.

By combining voluntary participation and somewhat predictable forces of competition, private ordering may bring about transformations that might otherwise not occur if one waited for the government to intervene. Those transformations may be limited – they may not help all children needing shoes (TOMS), small farmers needing better prices or workers needing higher wages (Fairtrade). But such is the nature of progress: incremental change in the right direction is better than hoping for comprehensive change that may not materialize at all. Figure 2 places the two approaches in context and Table 1 summarizes characteristics of the two approaches.

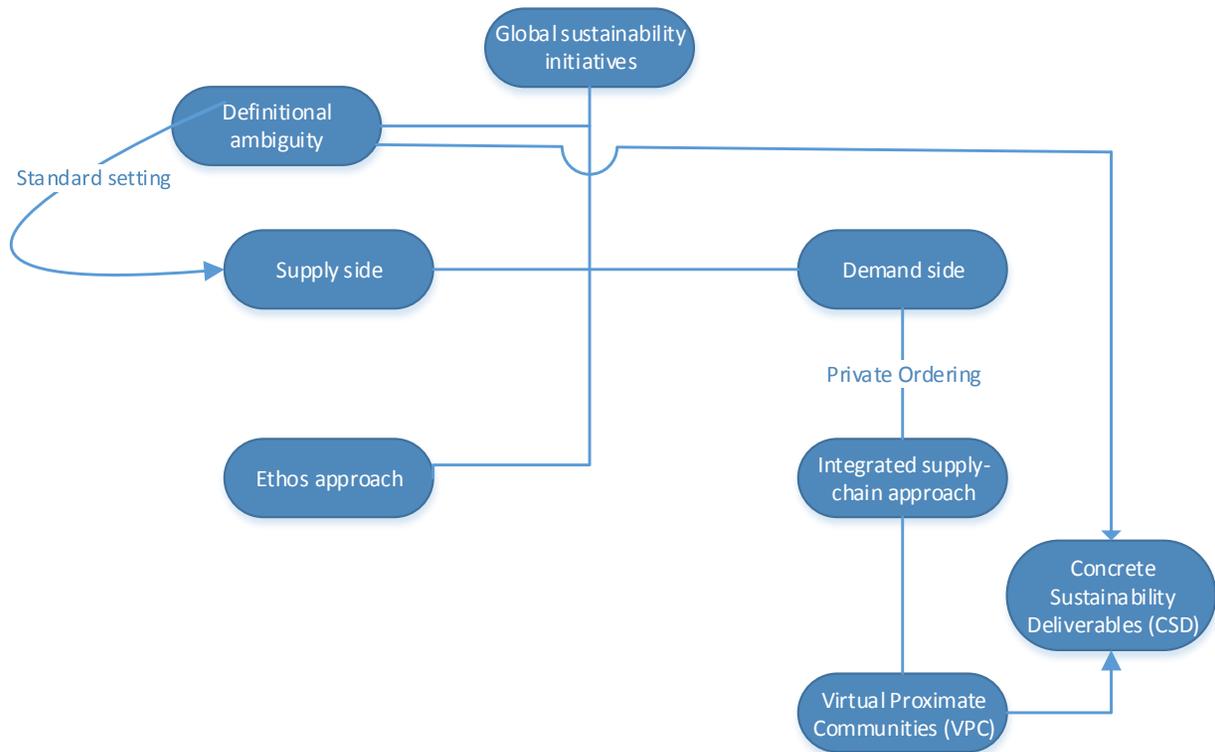


FIGURE 2: AN OVERVIEW OF SUSTAINABILITY APPROACHES

TABLE 1: A COMPARATIVE VIEW OF THE TWO APPROACHES

	Ethos approach	Integrated supply chain approach
Drivers	Legal, political	Market forces
Value proposition	Additional cost to the firm	Value to the society, now and in future
Key players (locus of control of the movement)	Investors	Consumers (Internal and external)
Flexibility in casting influence	Limited	Significant and pervasive throughout the ecosystem
Sustainability total costs	Sustainability compromises are externalized; losses stay outside the measurement metric	Treatment costs are internalized; become a part of the value proposition
Adaptability to change	Low. Delayed correction, if any.	Dynamic

Opportunities and Challenges: Moving Forward

Private ordering approaches described above offer significant potential for positive contributions toward sustainability goals. By tapping into a growing consciousness about the impacts that purchases of goods and services have upon the wellbeing of others, for-profit firms are making important strides toward positive changes in environmental, economic, and social preservation. Rather than relying upon coercion or threats, these approaches depend on developing market-

based incentives that cause participants in the supply chain to deliver the sustainability results that matter to the purchaser.

The effectiveness of these private, market-based approaches starts with consumer demand. Unless consumers become educated about the importance of sustainability practices, that demand will not materialize. The sustainability marketplace therefore requires more than mere legal structures to support trade; it also requires social capital that is grown through a variety of sources, which are not necessarily restricted to direct market participants. Non-profit organizations, religious communities, and other concerned individuals all play important roles in communicating about the significance of individual choices in progress toward sustainability commitments, as well as in translating and scrutinizing the commitments of market participants (see Vogel, 2005). They may also do important structural work in creating bases for knowledge and.²²

That communication occurs through different channels, but the Internet has obviously become an important channel because of its ubiquity and utility for economical and effective communication. Maintaining free and open access to the Internet may thus be an important commitment for all who care about sustainability issues, and particularly those who wish to pursue them through private trading channels. To the extent this freedom is threatened, it represents a significant challenge for all who are concerned about sustainability (refer to Meltzer, 2013).

Market participants also have an interest in communicating directly with consumers, who have limited capacity for digesting information from detailed disclosures made for the benefit of experts. As discussed above, branding efforts become an important part of this communication strategy, as a strong brand becomes an effective vehicle to communicate qualities of products, as well as the strength of sustainability commitments used to produce them.²³ Although some firms (like Starbucks) have sufficient resources to develop their own brands, smaller firms may find it more economical to adopt third-party brands. The Fairtrade movement provides a prominent example of a brand that appeals broadly to consumers, who associate this brand with trust that their purchase will reflect their sustainability commitments.

The efficacy of branding ultimately depends upon trust, which can be reinforced by third-party certification and assessment practices. Government can become involved in branding efforts, too. Brands that confirm geographical locations of origin, which might reflect distinctive cultural or crafts associated with a particular region, have been touted as one way to honor sustainability commitments through market channels (Aylwin and Coombe, 2014). But the efficacy of private branding often depends upon some combination of third-party verification of standardized commitments throughout the supply chain. This can be expensive, but this investment to confirm compliance builds value for the brand. For example, consumers who purchase Fairtrade products want to be sure that the premium price they are paying is ultimately benefiting a small producer somewhere, not just the seller or intermediaries in the supply chain.

The complexities of sustainability commitments that transcend economic, cultural, and social conditions necessarily require balancing and adjustment. For example, imposing new standards and practices through a private ordering approach can also have negative impacts on local culture. Some commentators have observed that an “NGO-Industrial Complex” is emerging, which despite good intentions for improving social and environmental barriers, can in some cases lead to unintended consequences of concentrating production in the hands of larger local companies, thereby excluding poorer producers (Perez-Aleman and Sandilands, 2013). Others have argued that approaches like the Fairtrade movement may not be as effective at delivering benefits to low-earning laborers, as the “small producers”

²² See, e.g., Kevin McKague & Christine Oliver, *Enhanced Market Practices: Poverty Alleviation for Poor Producers in Developing Countries*, 55 *Cal. Mgt. Rev.* 98 (2012) (discussing NGO efforts to improve the lot of poor milk producers in Bangladesh by education, enhancing collective efforts to achieve economies of scale, and internalizing marketing functions to better serve their local market). The approach that McKague and Oliver identify reflects the fact that not all sustainability efforts have to involve global trade.

²³ See Vogel, *supra* note 97.

to which it channels benefits are landowners, who pay their laborers minimum rates based on local laws (Haight, 2013).²⁴

Such criticism of sustainability claims and commitments is a necessary component of the marketplace for these consumer-driven purchases. It reinforces the value of robust freedom regarding exchange of information about sustainability claims and goals, which are important for any functioning market. Firms will have to adapt their products and business models to address valid criticisms or face losing their market advantage from their branding efforts.

Consumer-driven approaches for pursuing sustainability are not perfect, but they offer real opportunities to make progress toward sustainability goals. Their utility is limited only by the creativity within the marketplace, which permit a variety of different approaches to pursuing sustainability goals. Their success depends on shared commitment through purchases, reflecting a democratic form of power that is not constrained by political boundaries or the required approval of elites from governing majorities of NGOs, multinational companies, or states.

References

Contact authors for the list of references.

²⁴ Haight argues that buying premium coffee without the Fairtrade label actually benefits local labor because the production process requires higher skilled workers, and thus supports a higher wage based on market conditions.

Assurance on Sustainability Reports: why and who?

Belen Fernandez-Feijoo, belen@uvigo.es

Silvia Ruiz, sblanco@uvigo.es

Universidade de Vigo (Spain)

Silvia Romero, romeros@mail.montclair.edu

Montclair State University (USA)

Assurance on Sustainability Reports: why and who?

Abstract

Sustainability reports (SR) are a useful tool for companies to communicate their performance in the Corporate Social Responsibility (CSR) arena. Because SRs include mostly voluntary disclosures and only limited standards exist, the inclusion of Assurance statements (AS) provides credibility to the information included in the report. Previous literature has studied the variables that affect the existence of assurance and the profile of the assurator at two different levels: the characteristics of the reporting company, and the country where the company is located. Factors that have arisen as explanatory of the dependent variables are generally the result of linear regression models, considering only the fixed effects of the factors. Thus, the objective of this paper is to analyze the factors that explain the decision of a company to assure their SR and the choice of the assurator, using a novel statistical approach, generalized mixed models.

Keywords: Corporate social responsibility, assurance, sustainability report

Introduction

Sustainability reporting is a natural output of Corporate Social Responsibility (CSR). Companies with a CSR strategy should be willing to disclose their social, economic and environmental performance (Hubbard, 2009) given that it showcases their activities in the area. Sustainability Reports (SRs) are the best tool for this communication. Because SRs include mostly voluntary disclosure, and there are only limited standards, the inclusion of an Assurance Statement (AS) adds an additional layer of credibility to the report. From an economic perspective, the demand of assurance of a SR is justified as long as the benefits obtained in terms of credibility are higher than the cost of the assurance service. The 2013 KPMG survey (KPMG, 2013) indicates that less than 60% of the largest 100 companies around the world present assured information, which might indicate a high cost of the assurance service or the perception that it does not add value to the report.

Previous literature has studied the variables that affect the existence of ASs at two different levels: the characteristics of the reporting company (Mock et al. 2007; Perego, 2009; Sierra et al., 2013a) and the country where the company is located (Kolk and Perego, 2010; Simnet et al., 2009). To the best of our knowledge, previous research has considered only the fixed effects of the explanatory variables, analyzing simultaneously variables at the country and company level. However, when conclusions using variables at the company level in international samples are reached, the so-called *atomistic fallacy* error may occur. Conversely, when analyzing data at the country level, and concluding about variables at the company level, there is a risk of the so-called *ecological fallacy* effect (Hox, 1998; Goldstein, 2003, Torrecilla, 2008). Therefore, when data are nested or when there are repeated measurements for one unit of observation, it is recommended to use multilevel modeling techniques (Peugh and Enders, 2005 Pinheiro and Bates, 2000). These techniques improve the understanding of the relationship between the response and the explanatory variables, when the interrelations among the latter are identified. The use of mixed models makes it possible to assess simultaneously different aspects of a dataset. Our contribution in this paper is the use of generalized mixed models, to investigate the factors that explain the decision of a company to assure their SRs and the choice of the assurator. We contrast the results of previous literature in sustainability assurance, using an alternative statistical analysis based on mixed models. In order to define the model, the candidate explanatory variables are selected from previous literature. We then explore the bivariate associations between the identified candidate variables to select the explanatory variables to be included in two generalized mixed models. The first model is set to explain the decision to assure the SR while the second one intends to explain the choice of the assurance provider.

The paper continues as follows: after the literature review, the hypotheses are developed and the methodology is introduced. To finalize, the results, discussion and conclusions are presented.

Literature Review and hypotheses development

Theoretical framework

Institutional theory emphasizes the social context within which firms operate. Bansal (2005) posits that institutional theory is relevant to CSR due to three factors: (1) individual values and beliefs judge a firm's commitment to sustainable development, affecting perceptions of the firm's acceptability and legitimacy; (2) discussions among people with different opinions result in common beliefs and norms; (3) sustainability issues become institutionalized and regulated. Hence, even if the corporation has no marginal return from their sustainability practices, it might still decide to engage in sustainability due to regulation or social pressure. Legal system has been used as institutional factor to explain the decision to assure the SR (Kolk and Perego, 2010; Simnett et al., 2009) and the choice of a Big4 as assesor (Perego, 2009, Simnett et al., 2009). In this setting, a company might decide to assure the sustainability reports as a demand from its stakeholders who expect to receive transparent reports. This notion is enforced when considering stakeholder theory. Freeman (1984) posits that different factors such as stakeholders, values and societal issues have to be analyzed to establish the foundation of enterprise-level strategy. He indicates that the distinguishing feature of CSR is that it applies "the stakeholder concept to non-traditional stakeholder groups usually thought as having an adversarial relationship with the firm," and that "less emphasis is put on satisfying owners and comparatively more emphasis is put on the public or the community or the employees" (p.38). Based on this idea, stakeholder pressure is expected to determine the assurance of SRs and the selection of assesor. Previous literature has stated that this pressure is associated to industry membership (Kolk and Perego, 2010; Mock et al., 2007; Sierra et al, 2013a) and also with the company size. For example, companies with activities that have a major environmental impact, or companies with high visibility for being well known to the general public, will try to reduce risks, giving more confidence to their stakeholders through CSR assured information (Fernández_Feijóo et al., 2013).

Finally, legitimacy theory is based on the idea that there is a "social contract" between a company and the society. This theory assumes that companies will behave in such a way that makes them recognized by society as socially responsible (O'Donovan, 2002). The disclosure of CSR information through SRs legitimizes the role of the firm within the society (Deegan, 2002) given that when the society perceives that company's behavior is not adequate, a legitimacy gap may develop (Branco and Rodrigues, 2006). In those situations, the existence of assurance reinforces social behavior by adding credibility to the report.

According to these previous findings, determinants at the country and company levels may explain the existence of the assurance statement on the SR and the choice of the assesor.

Country level: Legal/institutional environment

Previous international research on determinants of assurance of SRs dealt mixed results. Simnett et al. (2009) classify countries according to their legal system tradition. They distinguish between common law, associated to shareholder-oriented countries, and code law, related to stakeholder-oriented countries (Ball et al., 2000). They also consider the enforcement mechanism, measured by the rule of law, which was developed by the World Bank. The rule of law is a measure of the "...perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence" (Kaufman et al, 2010). These authors use an international sample of 2,113 companies that published SRs in the period 2002-2004. They do not reach a definitive conclusion in terms of the legal tradition when evaluating the decision to assure the SR, because the results vary if companies from US are included or excluded from the sample. They find that companies in countries with a strong legal system are more likely to have their sustainability reports assured. Nevertheless, their results support that the choice of an accounting firm as assesor is higher in companies in stakeholder-oriented countries, regardless of whether or not the sample includes US. Perego (2009) studies the choice of the assurance provider using a data set collected between 1999 and 2005 from companies in Australia/New Zealand, Hong Kong, Ireland, Malaysia, North America, Pakistan, Singapore, South Africa, Sri Lanka, United Kingdom and other European countries. At the country level, he uses different indexes as proxies for the quality of governance and legal country regime. He finds that the choice of a large accounting firm as assesor of the SR is positively associated with countries with weaker enforcement, and negatively associated with the level of litigation risk in the country, measured by a Liability

Standard Index developed by LaPorta et al. (2006). He also tests company level variables such as size, industry, and profitability, and finds no conclusive results for any of them.

Country-level determinants of the existence of AS are also analyzed by Kolk and Perego (2010), who use three institutional factors: legal environment, defined as common law vs. civil law, enforcement mechanisms (strong vs. weak) and the pressure toward sustainability (higher vs. lower). They use a logistic regression with fixed effects to analyze the likelihood that a SR has been assured. Their sample includes 341 companies in 20 countries for the years 1999, 2002 and 2005, resulting in 636 observations. They find a positive association between the response variable (existence of AS) and the stakeholder orientation of the country, as well as the pressure towards sustainability. Furthermore, they conclude that companies in countries with weak enforcement mechanisms are more likely to assure their SRs. Their study shows a significant association between existence of assurance and concrete industries: companies in oil, chemical and manufacturing industries; and no significant association between existence of assurance, and the explanatory variables size and capitalization rate. These researchers also analyze if the aforementioned determinants are significant in the choice of the assurance provider. For that purpose, they use the SRs in their sample that were externally assured (98 SRs). They find that neither country-level determinants nor size of the company are significant; and that companies in the financial sector are more likely to hire a big accounting firm as assurance provider. Another interesting finding is that companies in the USA present lower proportion of reports with sustainability assurance than companies in other countries in the world, which might be related to the high risk of litigation. Japan and most of the European countries have the highest rates of assurance of SRs. The authors conclude that country-level factors are significant drivers of sustainability assurance, and highlight the need of future research to analyze country-level and firm-level factors concurrently.

These results suggest that companies in stakeholder-oriented countries, with weak enforcement and high pressure towards sustainability are more likely to have their SR externally assured, and that they will hire a Big-4. Our H1 is stated as follows.

H1.a. Legal environment affects the decision to have the SR externally assured.

H1.b. Legal environment determines the choose of the assuor

Starting in 2001, the European Commission has developed a strategic policy to promote CSR. One of the main effects of this policy is the rise of companies that prepare and disclose their SRs according to the Global Reporting Initiative (GRI) framework, from 270 in 2006 to over 850 in 2011 (European Commission, 2011). The preeminence of Europe in the sustainability assurance market was highlighted by Mock et al. (2007), evidenced by observations on a sample of 130 companies that published assured SRs in the 2002-2004 period. They also observe that companies in utilities, mining and oil sectors (environmental and economically more sensitive industries) are more likely to assure their SRs. Afterwards, in a comparative study with data from 2006-2007, Mock et al (2013) confirm the leadership of European companies in sustainability assurance. As a consequence of the institutional pressure from the EU, on April 15, 2014, the European Parliament approved the Directive on disclosure of non-financial and diversity information by certain large companies and groups (http://europa.eu/rapid/press-release_MEMO-14-301_en.htm?locale=en). European public policies promote the quality of the Sustainability disclosures but do not set rules on the selection of assurance providers. Hence, we hypothesize that countries in EU are more likely to have SR externally assured. Our second hypothesis is:

H.2.a: European companies are more likely to have their SRs externally assured.

H 2.b: Being a European or a non-European company has no effect on the choice of the assuor.

Company-level determinants

Sierra et al. (2013a) study the factors that influence the decision to have the SR externally assured, as well as the choice of the assurance provider, considering only firm-level variables. The sample includes 133 Ibex-35 Spanish companies with SR, and the variables under consideration are industry, size, profitability and leverage. They conclude that the decision to externally assure a SR is positively associated with size and ROE, and negatively associated with ROA and leverage. The authors, use a second sample of 163 companies issuing SRs (with and without AS), and, find a relationship between the financial audit market and the market of SR assurance. Finally, using a third sample of 135 companies with SR and AS, they conclude that companies in oil and energy, basic materials and financial industries are more likely to have their SR assured by a Big-4 auditing firm. Zorio et al

(2012) find similar results using a sample of 130 companies listed at the *Bolsa de Madrid* in the period 2005-2011. The authors highlight that Big companies, those that belong to the oil and energy industry, as well as companies that are listed at IBEX-35 are more likely to have the SR assured. They also find that the decision of hire an auditor as opposed to a consultant depends on industry, size, and the inclusion on the IBEX-35.

As observed in previous literature, the decision to assure the SR and the choice of the assurance provider can be affected by industry membership, company size and the shareholders' pressure due to the visibility of large companies and the relationship between financial auditors and SR assurance providers. According to that, we state our third hypothesis as follows:

H.3a: Company features (size, industry membership and ownership structure) affect the decision to assure the SR.

H.3b: Company features (size, industry membership and ownership structure) affect the decision to hire a Big-4 assurance provider.

Finally, at the company level also, there are two additional determinants linked to the company strategy reporting. We expect that the commitment to CSR, represented by higher levels of CSR disclosure, or by the assumption that integrated reports provide enhanced communication with stakeholders, will affect the existence of assurance and the quality of the assurance provider.

Up to date, the International Integrated Reporting Committee (IIRC), created by the Prince's Accounting for Sustainability Project, the GRI and the International Federation of Accountants (IFAC), is working on a framework to provide the wide range of information that investors demand. According to the IIRC, an integrated report should identify the financial and non-financial connections between the following elements (IIRC 2011): Organizational overview and business model, Operating context (risks and opportunities included), Strategic goals and the strategies to achieve those goals, Governance and remuneration, Performance, and Future Outlook. There is little research on the determinants of integrated reports mainly focused on country level determinants (Frías-Aceituno et al., 2013a, García-Sánchez et al., 2013; Jensen and Berg, 2012; Sierra-García et al., 2013b) but also including characteristics at the company level (Frías-Aceituno et al., 2013b, Sierra-García et al., 2013b). Sierra-García et al. (2013b) find that the likelihood of presenting an integrated report is significantly and positively associated to having the sustainability report assured.

Thus, our fourth and fifth hypotheses are stated as follows:

H.4a: Companies that disclose SR with the highest level of application of the GRI guidelines are more likely to have their SR externally assured,

H.4b: Companies that disclose SR with the highest level of application of the GRI guidelines are more likely to hire a Big-4 assurance provider.

H.5a: Companies that issue integrated reports are more likely to have their SR externally assured,

H.5b: Companies that issue integrated reports are more likely to hire a Big-4 assurance provider.

Research Method

Sample

Data are collected from the GRI website. This dataset includes 8,332 companies with SR registered in the period 2011-2013 in more than 80 countries. We use two samples. Sample 1 includes 3,706 company-year observations, from 2,220 companies that voluntarily decided to register their SRs in GRI. Our sample includes 22 countries in different regions in order to achieve a worldwide representation from countries with and without mandatory CSR reporting, and in developed and developing economies. For companies in each of these countries, we remove all the SRs that did not follow the GRI guidelines or the SR classified as GRI content index, to eliminate the effect of information that is not homogeneous. Duplications are excluded and data completed with information hand collected from the corporate websites, when needed. Sample 2 derives from Sample 1, and it includes only the assured SRs, dealing a total of 1,491 observations from 874 companies.

Methodology

We start our analysis with a bivariate test of the explanatory variables selected from the literature review, in order to exclude those with no statistical association with the response variables. When the variables are

categorical (e.g. size), we use a cross tabulation analysis; when the variables are continuous, we calculate the correlations.

As a second step, we analyze the likelihood of a company to have the SR externally assured, using Sample 1 (3,706 SRs). For this purpose, we run a generalized linear mixed model to analyze jointly the legal characteristics of the countries in which the companies operate and other variables at the company level (Model 1). Finally, we analyze the factors underlying the choice of the assurance provider using Sample 2 (1,491 SRs with AS). For this purpose, we run a generalized linear mixed model to analyze jointly the legal characteristics of the countries in which the companies operate and other variables at the company level (Model 2).

Generalized mixed models are used in literature to analyze nested data structures (Peugh and Enders, 2005, Pinheiro and Bates, 2000). The model establishes a hierarchy in the data. In our sample, companies (level 1) are nested in countries (level 2); hence, data at the company level is not independent within each country given their common country characteristics. We assume country of origin is a random effect, because it is a grouping factor.

Variable definition

In Model 1, the response variable is ExtAssurance. This dichotomic variable adopts a value of 1 if the company has its SR externally assured, and 0 otherwise. Big4 is the response variable in Model 2. Big4 adopts a value of 1 if the SR is assured by a Big-4 firm, and 0 if it is not.

The explanatory variables are the following:

a) At the country level:

- *Country* is a nominal variable that adopts 22 values, representing the 22 countries in the sample. We use this variable as grouping factor (random effect).

- *NCRI* (National Corporate Responsibility Index) is used as proxy for institutional pressure towards sustainability (Kolk and Perego, 2010) and calculated by Zadek et al. (2005). NCRI refers to three dimensions: internal (corporate governance, ethical practices and human capital development); external (civil society context) and environmental management.

Regulatory enforcement is measured by the rule of law developed by The World Bank Group (2013). We use the last year's information available, 2012.

Law origin is defined according to Djankov et al (2008). It has a value of 1 if common law and 0 if civil or code law.

EU identifies companies in European Union countries.

b) At the company level:

Industry of the company issuing the SR. The GRI database classifies 38 industries. We group them into 10 values according to its nature using previous classifications (Amran and Haniffa, 2010; Deegan and Gordon, 1996; Wilmshurst and Frost, 2000; Fernandez-Feijoo et al., 2014). Energy and Chemicals (Chemicals, Energy, Energy utilities); Construction (Construction, Construction materials); Consumer goods (Consumer durables, Food and beverages, Healthcare products, Household and personal products, Retailers); Transportation (Aviation, Logistic, Railroad); Finance (Financial services); Primary sector (Agriculture, Forest and paper, Mining); Manufacturing (Automotive, Equipment, Metal products, Textiles apparel, Tobacco, Toys); Services (Commercial services, Healthcare services, Media, Non Profit / services, Public agency, Real state, Tourism/leisure, Universities, Waste management, Water utilities); Technology (Computers, Technology hardware, Telecommunications) and Other (Conglomerate, Other). We use the same classification in Sample 2.

Size has a value of 1 if the SR is published by a large or multinational company and 0 if the company is small or medium.

Listed has a value of 1 if the SR belongs to a company publicly traded, and 0 otherwise.

App-level is a nominal variable that indicates the level of application of the GRI guidelines. Two guidelines (G3 and G4) were issued by GRI in the period of analysis. 99.7% of the sample of 3,706 SR follows the G3 guidelines. G3 distinguishes between three levels (A, B and C) from higher to lower, which indicates the level of information disclosure in the report. The remaining .3% is prepared according to the G4 guidelines that establish two levels of disclosure (In Accordance-comprehensive and In Accordance-core). GRI has defined no association

between G3 and G4 guidelines. This variable adopts a value of 1 if the SR has level A or In accordance-comprehensive and 0 otherwise.

Integrated indicates how sustainability information is disclosed by the company. This variable adopts a value of 1 if the company issues an integrated report and 0 if it issues a stand-alone report. According to Sierra et al (2013a) there is a positive association between the decision to assure the SR and the likelihood of issuing an integrated report.

We also use the variable *year*, because we have repeated observations in the period of analysis from each company.

Results

Descriptive analysis

The distribution of the sample by country is shown in Table 1.

TABLE 1: SAMPLE DISTRIBUTION BY COUNTRY

Country	Sample 1		Sample 2		Proportion of SRs with AS
	Freq.	%	Freq.	%	
Argentina	96	2.6	20	1.3	20.83
Australlia	159	4.3	85	5.7	53.46
Belgium	60	1.6	14	0.9	23.33
Brazil	274	7.4	105	7	38.32
Canada	207	5.6	67	4.5	32.37
China	242	6.5	58	3.9	23.97
Denmark	47	1.3	25	1.7	53.19
Finland	151	4.1	58	3.9	38.41
France	72	1.9	35	2.3	48.61
Germany	231	6.2	103	6.9	44.59
Greece	76	2.1	37	2.5	48.68
Hungary	51	1.4	13	0.9	25.49
Italy	135	3.6	92	6.2	68.15
Japan	55	1.5	19	1.3	34.55
Netherlands	196	5.3	94	6.3	47.96
Norway	34	0.9	17	1.1	50.00
Portugal	66	1.8	41	2.7	62.12
South Africa	159	4.3	66	4.4	41.51
Spain	342	9.2	189	12.7	55.26
Sweden	299	8.1	175	11.7	58.53
UK	166	4.5	73	4.9	43.98
USA	588	15.9	105	7	17.86
Total	3,706	100	1,491	100	40.23

Table 2 presents the distribution by industry. The 87.2 % of the reports in Sample 1 are from large or multinational companies; 57.3% belong to listed companies and 40.9% of the SRs have an AS. This last group forms Sample 2. In this second sample, 90.3% of the reports are from large or multinational companies, 61.4% from listed companies and the 61.4% were assured by a Big-4 auditing firm.

TABLE 2: SAMPLE DISTRIBUTION BY INDUSTRY

Industry	Sample 1		Sample 2		Proportion of SRs with AS
	Freq.	%	Freq.	%	
Construction	184	4.96	73	4.90	39.67
Consumer goods	468	12.63	133	8.92	28.42
Transportation	182	4.1	86	5.77	47.25
Energy and Chemicals	557	15.03	276	18.51	49.55
Primary Sector	277	7.47	107	7.18	38.63
Manufacturing	262	7.07	92	6.17	35.11
Services	659	17.78	218	14.62	33.08
Technology	230	6.21	98	6.57	42.61
Other	418	11.28	160	10.73	38.28
Finance	469	12.66	248	16.63	52.88
Total	3,706	100.00	1,491	100.00	40.23

Bivariate analysis

Results of the cross-tabulation and correlation analysis for variables are presented in Table 3 (significant at the .10% level).

TABLE 3: CROSS TABULATION/CORRELATION ANALYSIS

Factor	Model 1 (ExtAssurance) (N=3,706)		Model 2 (Big4) (N=1,491)	
	Pearson correlation	Asym. Sig (2-tales)	Pearson correlation	Asym. Sig (2-tales)
RuleLaw	.048***	.003	.143***	.000
NCRI	.054***	.001	.152***	.000
	Pearson Chi-Square	Asym. Sig (2-tales)	Pearson Chi-Square	Asym. Sig (2-tales)
LawOrigin	69.801	.000	51.862	.000
UE	164.229	.000	81.008	.000
Country	341.436	.000	284.679	.000
Size	21.941	.000	3.565	.059
Listed	17.893	.000	10.571	.001
Industry	100.597	.000	52.626	.000
App-level	558.643	.000	.605	.437
Integrated	15.659	.000	6.373	.012

*** Correlation is significant at the .01 level

** Correlation is significant at the .05 level

* Correlation is significant at the .10 level

Multivariate results

Model 1

We design a generalized linear mixed model with a binomial probability distribution and a logit link function. It is structured in two levels: country and SR. Country is used as random effect; the variables with significant correlations in the bivariate analysis are the fixed effects. The Model 1 test has a good fit (overall percent correct of 72.6%).

Table 4 shows the estimations of the parameters associated with the random effects. We calculate the *Intraclass Correlation Coefficient* (ICC) for each year based on those estimations. ICC represents the variability of the *ExtAssurance* variable among countries with respect to the total variability. In 2010, the country factor contributes 19.43% (.219/(.908 +.219)). This means that almost 20% of the total variability of the dependent variable (*ExtAssurance*) is due to differences in the proportion of SRs assured in each country. For 2011 and 2012, the ICC is 17.06% and 16% respectively. Therefore, the likelihood of having the SR assured is not the same in all

countries (Z Wald test Sig = .011), and country can be used as random effect. This result also shows that most of the variability of the dependent variable (more than 80%) is explained by differences within the country, e.g. company level factors.

TABLE 4: COVARIANCE PARAMETERS

Var.	Estimate	Z	Sig.
Subject: country	.219	2.542	.011
Residual (year1)	.908	28.222	.000
Residual (year2)	1.065	23.844	.000
Residual (year3)	1.150	21.143	.000

Covariance structure: variance components

Fixed effects are shown in Table 5. Our results do not support H.1a because legal system (*LawOrigin*), enforcement (*RuleofLaw*) and pressure towards Sustainability (*NCRI*) do not have a significant effect on the response variable; however, the EU variable is significant, which can be explained by the specific public policies on CSR promoted from the European Commission. H.2a is therefore supported. At a company level we observe that the *Industry*, *Size*, *Listed*, and the fact of presenting the sustainability information in the highest level of application determine the existence of assurance of the SRs; on the contrary, the existence of integrated reports, is not a significant factor. Hypotheses H.3a and H.4a are supported but H.5a is not.

TABLE 5: FIXED EFFECTS

Source	F	Sig.	Source	F	Sig.
Correctedmodel	29.738	.000	Size	15.475	.000
RuleLaw	.821	.365	Listed	10.183	.001
NCRI	1.063	.303	Industry	5.870	.000
LawOrigin	.000	.990	App-level	365.446	.000
EU	5.407	.020	Integrated	.006	.938

- Table 6 shows the exponential coefficients of the significant fixed effects. The results are the following:
- the odds for companies in non European countries having the SR externally assured are .509 times the odds for European companies, all other things being equal;
 - in SME companies, the odds are .602 times the corresponding odds for large and multinational enterprises, all other things being equal;
 - in non-listed companies, the odds are .755 times the corresponding odds for listed ones, all other things being equal.
 - for Industry, we use companies in financial industry as reference. We find that, all other things being equal:
 - the odds of having the SR externally assured in companies belonging to the construction industry are .421 times the corresponding for companies in the financial sector;
 - in Consumer Goods the odds are .454 times;
 - in Primary sector the odds are .538;
 - In Manufacturing, .467 times;
 - in Services, .523 times;
 - in Technology, .675 times;
 - in Others, .620 times.
 - the odds of having the SR externally assured in companies that issue SR with the lowest levels of disclosure is 0.161 times the corresponding for companies that issue the SR with the highest levels, all other things being equal.

TABLE 6: FIXED COEFFICIENTS

Source	Coefficient	Sig.	Exp (Coeff)
Intercept	-.893	.698	.409
EU (countries = No	-.676*	.020	.509
EU countries = Yes	.000 ^a		
Size = SME	-.508**	.000	.602
Size =Large and multinational	.000 ^a		
Listed = No	-.281**	.001	.755
Listed = Yes	.000 ^a		
Industry = Construction	-.865**	.000	.421
Industry = Consumer goods	-.789**	.000	.454
Industry = Transportation	-.263	.198	.769
Industry = Energy and Chemical	-.147	.315	.864
Industry = Primary sector	-.619**	.001	.538
Industry = Manufacturing	-.761**	.000	.467
Industry = Services	-.649**	.000	.523
Industry = Technology	-.394*	.036	.675
Industry = Other	-.477**	.002	.620
Industry = Finance	.000 ^a		
AppLevel = Other	-1.825**	.000	.161
AppLevel = Highest	.000 ^a		

^a This coefficient is set to zero because it is redundant

** Significant at the .01 level

* Significant at the .05 level

In sum, the likelihood of having the SRs assured is higher in companies from Europe, large or multinationals, listed, as well as those that present the SR with the highest level of sustainability disclosure, according to GRI. We also find that companies in the Finance industry are more likely to have their SRs externally assured than companies in Construction, Consumer goods, Primary sector, Manufacturing, Services, Technology, and Other. We find no evidence for Transportation, and Energy-Chemical, meaning that these sectors have no significant differences compared to Finance.

Model 2

The second model analyzes the choice of a Big-4 firm as provider of the SR assurance. Similar to Model 1, Model 2 is a generalized linear mixed model with a binomial probability distribution and logit link function. Data are nested within two levels, Country and AS. Country is used as random effect as in the previous model. Model 2 has an appropriate goodness of fit test (overall percent correct of 74.4%). The estimations of the parameters associated with the random effects are included in Table 7. In 2010, the differences between countries explain 47.17% (.891/ (.998+.891)) of the variability of the response variable, *Big4*. ICC has similar percentages in 2011 and 2012, 46.70% and 45.98%, respectively. The likelihood of having the SR assured by a Big4 is not the same in all the countries (Z Wald test Sig = .012).

TABLE 7: COVARIANCE PARAMETERS

Var.	Estimate	Z	Sig.
Subject: country	.891	2.512	.012
Residual (year1)	.998	16.696	.000
Residual (year2)	1.017	15.418	.000
Residual (year3)	1.047	14.381	.000

Table 8 presents the explanatory variables of this model: Size, Listed, Industry and existence of an integrated report, which supports hypotheses 4b, 5b and 7b. Similar to Model 1, legal system (*LawOrigin*), enforcement (*RuleofLaw*) or pressure towards sustainability (*NCRI*) do not have a significant effect on the decision

to have the SR assured by a Big4, which does not support H.1b. Finally, EU membership does not affect the dependent variable, which supports H2.b. These results suggest the existence of other effects at the country-level that explain the selection of a Big4 as an assurator. At the company level, H.3b and H.5b. are supported.

TABLE 8: FIXED EFFECTS

Source	F	Sig.	Source	F	Sig.
Corrected model	6.027	.000	Size	5.740	.017
RuleLaw	.033	.856	Listed	28.297	.000
NCRI	.067	.796	Industry	4.751	.000
LawOrigin	1.706	.192	Integrated	4.688	.031
EU	1.323	.250			

- Table 9 presents the exponential coefficients of the significant fixed effects. The results are as follows:
- the odds of having the SR externally assured by a Big4 by small and medium size companies are .572 times the corresponding odds for large and multinational firms, all other thing being equal;
 - the odds of having the SR externally assured by a Big4 in not listed companies are .461 times the corresponding odds for listed ones, all other thing being equal;
 - for the variable Industry, we use companies in financial industry as reference.
 - in the Construction industry, the odds are .504 times the corresponding for companies in “Finance” industries;
 - in Consumer goods the odds are .324 times;
 - in Primary sector,.498 times;
 - in Manufacturing,.332 times;
 - in Services, 320 times;
 - in Others.494 times.
 - in companies that present the sustainability information in an stand-alone report, the odds are .698 times the corresponding odds for companies that present it in an integrated report.

TABLE 9: FIXED COEFFICIENTS

Source	Coefficient	Sig.	Exp (Coeff)
Intercept	-.354	.931	1.425
Size = SME	-.559*	.017	.572
Size= large and multinationals	.000 ^a		
Listed = No	-.774**	.000	.461
Listed = Yes	.000 ^a		
Industry = Construction	-.685*	.033	.504
Industry = Consumer goods	-1.128**	.000	.324
Industry = Transportation	.057	.869	1.058
Industry = Energy and Chemical	-.359	.108	.698
Industry = Primary sector	-.697*	.015	.498
Industry = Manufacturing	-1.103**	.000	.332
Industry = Services	-1.139**	.000	.320
Industry = Technology	-.571	.060	.565
Industry = Others	-.706**	.006	.494
Industry = Finance	.000 ^a		
Integrated = No	-.360*	.031	.698
Integrated = Yes	.000 ^a		

a This coefficient is set to zero because it is redundant

** Significant at the .01 level

* Significant at the .05 level

Our results show that the likelihood of hiring a Big4 auditing firm as SR assesor is higher in listed companies, and in companies that present the sustainability information in an integrated report. Regarding industry, the likelihood of choosing a Big-4 as assurance provider is higher in the Finance industry than in Construction and Primary Sector, and for Consumer goods, Manufacturing, Services and Others.

Discussion and Conclusions

The aim of our paper is to investigate the factors that explain the decision of a company to assure their SRs and the choice of the assesor, under the assumptions of institutional, legitimacy and stakeholder theories. We contribute to existing literature by using a new methodology (generalized mixed models) that considers the effect of randomness produced by hierarchical grouping. We test the hypotheses using two samples. Sample 1 includes 3,706 company-year observations from 2,220 companies in 22 countries. Sample 2 includes only the assured SRs of the sample 1, dealing a total of 1,491 observations from 874 companies, also in 22 countries.

We find that the decision to assure the SRs and the choice of the assesor depends both on differences between countries and differences within each country.

In contrast to Kolk and Perego (2010), Perego (2009) and Simnett et al. (2009), we do not find that legal system of the country measured by the origin of the law, the legal enforcement and the pressure towards sustainability, affect significantly the decision to externally assure the SR or the choice of a Big4 as an assesor. As a consequence, our results do not support the first hypothesis. Also, at the country level, we find that companies from EU are more likely to have the SR assured than companies in non-EU countries, however they do not hire more Big-4 than companies in other countries. This result can be explained by the existence of specific policies for sustainability in the EU that promote the assurance of the SR as a tool to improve its quality, but do not put restrictions on the selection of assesor. Our results support the second hypotheses. Further research is needed to study determinants of assurance of SRs at a country level, which might be related to regulation.

At the company level, similarly to Simnett et al (2009) and Sierra et al. (2012) we find that large and multinational companies are more likely to have their SR externally assured. We also find that the likelihood of hiring a Big4 as assurance provider is higher in large companies than in small and medium ones, which confirms the results from Simnett (2009). Comparably to Mock et al. (2007, 2013) and Kolk and Perego (2010), we find that companies in Energy-Chemicals are more likely to have their SR assured. We also find that the odds of having the SR assured instead of not having it are higher in Finance and Transportation industries. Furthermore, as in Sierra et al. (2013a) and Kolk and Perego (2010), our results show that the likelihood of choosing a Big-4 as assurance provider is higher in the Finance industry than in Construction and Primary Sector, and for Consumer goods, Manufacturing, Services and Others. Our results support the third hypotheses.

The level of application of the GRI guidelines is found to be a measure of commitment to transparency, because it affects the decision to have the SR assured, but not the choice of the assurance provider. According to this, H.4a is supported and H.4b is not. Unlike Sierra et al. (2013b) we do not find evidence that the likelihood of presenting an integrated report is significantly and positively associated with having the sustainability report assured. However, companies that present their SR in an integrated way are more likely to hire a Big4 as assesor than companies that issue a non-integrated report. According to this, H.5b is supported while H.5a is not. While firm-level variables such as industry or size have been tested in existing literature, other determinants such as those related to the level of commitment to CSR by the reporting company have not, and our results contribute to the existing literature by providing evidence to this matter.

We are aware that our findings can be generalized to the population from which the sample was obtained, i.e, companies that register their SRs in GRI, therefore, they can not be extrapolated to the whole market of the sustainability assurance. Despite this limitation, we believe that these results can be useful to regulators and also for companies that offer the assurance of the SRs service.

References

Contact author for the list of references

Intangibles and market analyses

**Knowledge Inequality, Entrepreneurship, and Agricultural Transformation – A
Conceptual Framework and Lessons from Rural South India**

*Suresh C Babu, s.babu@cgiar.org
International Food Policy Research Institute, Washington DC
C. Jayachandran, jayachandrc@mail.monclair.edu
Montclair State University, Montclair, New Jersey*

Knowledge Inequality, Entrepreneurship, and Agricultural Transformation – A Conceptual Framework and Lessons from Rural South India

Abstract

In this paper we develop a conceptual model for identifying the indicators and causal factors of knowledge inequality in agrarian economies. We apply this framework to study the issues, constraints and challenges that smallholder farmers face in improving the business-orientation of their agricultural enterprises in rural South India. We use a recent technological innovation that is promoted among rice farmers called the System of Rice Intensification (SRI) as a case study to test this framework. Using primary data collected from the farming households on their engagement in the input and output markets and through focus group discussions in 27 villages we find that knowledge inequality matters for not only productivity differences but also for the nature and intensity of business orientation in agriculture. We use a recent technological innovation that is promoted among rice farmers called the System of Rice Intensification as a case study to test this framework. The paper concludes that reducing the knowledge inequality crucially depends on assessing the current knowledge bottlenecks and designing programs that can address them in a context specific manner and that in addition to knowledge constraint, the resource use and entrepreneurial constraints need to be addressed for effective transformation of agriculture.

Introduction

Economic growth of nations is driven by the productivity of various sectors of their economies. . Productivity levels depend on the knowledge and skills of the production agents. The paper begins with a premise that knowledge and the skills to apply that knowledge are basic inputs into any production process [11]. Agriculture production is becoming an increasingly knowledge intensive activity. Farmers acquire knowledge through various sources and some farmers have access to more knowledge and skills through early experimentation, better connection, higher education and greater ability to pay for knowledge services.

Recent challenges in achieving the millennium development goals of reducing hunger and poverty by half by 2015 highlight the problems of low productivity and poor management of natural resources by the smallholder farmers in the developing countries [9]. Increasing the ability of the smallholder farmers to obtain and use the knowledge related to production techniques and other knowledge related to marketing and processing has been suggested as one of the means to increase productivity. In essence the programs that attempt to increase the knowledge base of the farmers are focused on reducing the knowledge inequality among the farmers so that every farmer could achieve the maximum production levels that could be achieved in a given set of farming and resource conditions. However, reducing the knowledge inequality among the farmers depends on matching the knowledge gaps by identifying the knowledge needs that are context and agro-ecology specific [3]. Yet, very little is known about the knowledge base of the farmers and how effective use of such information to design programs that could reduce the knowledge inequality among the farming community [16]. Through focused group discussions with the farmers in 27 villages of south India complemented by series of interviews with selected farmers and farm level surveys, this paper attempts to identify the factors responsible for the knowledge inequality among the farming community and recommends possible programs that could be effectively used to reduce such knowledge and skill inequalities in farmers.

Study of knowledge inequality in the context of agricultural transformation requires addressing the following fundamental questions: How do farmers acquire information and convert it into knowledge base useful for production and business processes? Who are the players and actors in the information value chains? What constraints and challenges these actors face in sharing knowledge? What mechanisms - public, private, and farmer to farmer exists in strengthening the process of knowledge sharing at the community and individual levels? How does one measure knowledge inequality in the context of technological innovation? What policies and programs needs to be in place to reduce the knowledge inequality? Addressing these questions, this paper develops a boarder conceptual framework and uses it in a context that can help in the process of reducing knowledge inequality.

The paper is organized as follows: the next section develops a conceptual framework for studying knowledge flow and accumulation in agrarian economies. Section three describes the methodology and data used in the study. The fourth section describes the study area and gives an overview of the survey results. Section five presents the results with respect to knowledge variations and knowledge is shared in the context of the technology adoption-the system of rice intensification. Section six discusses the results, and the last section presents the conclusions.

Conceptual Framework for studying the Knowledge Inequality, Entrepreneurship, and Agricultural Transformation

Agricultural transformations happen when available knowledge is accessed, applied and aligned with action on the ground. Actions depend on translating the knowledge which further depends on the institutional and systems capacities that bring the knowledge to action. However, the access of knowledge by institutions and delivery systems is also constrained by the knowledge base. Social scientists have explored how knowledge is generated, absorbed and used for productive purposes for quite some time [12]. The role of knowledge in agricultural production and entrepreneurial activities is recognized for some time and has been organized through extension and rural services. In much of the developing countries, public extension system remains the main source of knowledge and there is an increasing call for their reform to increase the knowledge content and its effective use by the farmers [8]. Role of leaning and search for knowledge by economic agents in effective use of knowledge in productive activities has been recognized [6]. Following [4], several studies have developed theoretical and empirical approaches to learning and knowledge accumulation among productive economic agents [1]. Recently, knowledge sharing through the formation of social capital has been given importance in the development literature [14] and researchers have attempted to model the factors that contribute to accumulation of social capital [10]. The level of social capital the economic agents have and the level of inequality due to their networking skills could explain knowledge inequality and their entrepreneurial ability. Recently aspirations of the economic agents have been studied for their influence on knowledge accumulation and use [15]. Farmers, as any other group of economic agents differ in their ability to access and use knowledge in the production process. The farmers' access to information and their ability to transform such information into knowledge towards, production, processing, and marketing of agricultural produces depend on several factors: their age, education, experience in farming, their financial status, type of farm enterprise and distance to other knowledge farmers [7].

The conceptual framework presented in fig.1 identifies knowledge inequality as a key determinant of effective use of knowledge by farmers to increase their productivity. It begins with societal challenges such as high level of poverty and hunger among rural agrarian societies. Low productive agrarian systems could be transformed into high productive systems through effective use of knowledge. The first row highlights the societal challenges and the need for increase the total factors productivity of farming systems. In the second row a set of possible solutions and expected outcomes are identified. The third row shows the levels and results of interventions. Collectively these factors and interventions move a low productive agrarian system to a higher level of productivity resulting in higher incomes for farmers and better standards of living. Moving along the first row, increasing total factor productivity will require bringing up all types of farms to a higher productivity frontier. This can be achieved through strengthening the research and innovation system at the national level. Innovations, intensification, and knowledge access depends on the improved extension and rural advisory services. This requires understanding of the knowledge challenges, the needed knowledge intensity and the current levels of knowledge inequality. Addressing them through policy, institutional, and market support can reduce knowledge distortion among the farmers and increase their productivity. In order to develop effective policies and programs that will increase the access of knowledge to farmers, and reduce knowledge inequality among them, factors associated with farmer's behavior to search and use knowledge needs to be fully understood. In what follows we apply this conceptual framework to the System of Rice Intensification (SRI) in rural South India to explore the issues, constraints, and challenges farmers face in the access and use of knowledge to increase their productivity.

A Case study of System of Rice Intensification in Rural South India

Agriculture is increasingly becoming a knowledge intensive activity. The intensity of knowledge use increases with the need for the making agriculture more business-oriented. Policy makers in India face several challenges in increasing food production. First, given the reduction in availability of land and water resources increasing crop productivity becomes a major imperative. In the context of rice cultivation for example, there is a call for increasing the average yield of rice from the current 2.5 tons per hectare to 5 tons per hectare. Second the use of natural resources such as irrigation water has to be made more sustainable. This calls for water conservation technologies in all the cropping systems particularly in the rice and wheat production systems where water is used inefficiently due to flooding system of irrigation. In addition, due to poor and unreliable supply of free electricity to rural areas, the pumping of ground water has been unsustainable. Third, there is an increasing need to reduce the cost of cultivation by optimizing the input use such as labor, fertilizer, plant protection chemicals, and seeds. Fourth, by improving quality of harvested produces through quality control and improved storage methods, farmers could increase the profitability of crop production. Fifth, by increasing the prudent use of chemical inputs, the environmental contamination from agriculture and the associated health risks could be reduced. Finally, increasing the speed of transformation of agricultural sector from a subsistence-orientation to business-orientation requires increasing the knowledge base of the farmers in rural entrepreneurship. In the context of rice production in the study area the system of rice intensification provides an opportunity to achieve these objectives. In this paper we use SRI as a case study to explore the knowledge needs, gaps, and inequality and their effects on the entrepreneurship of the smallholder farmers in rural south India.

Data and methodology

Farmers access to knowledge needs to be determined based on the specific set of activities involved during the production cycle or along their commodity value chains [2]. This study uses qualitative methods to understand knowledge access behavior of the farmers. Twenty-seven focus group discussions (FGDs) were conducted between March and May 2011. This was followed by a farmer group discussion of the farmers in 5 focused clusters in January 2014. The latest round of FGDs related to knowledge levels on the system of rice intensification. In addition to farmers several key informants were interviewed including researchers from agricultural universities, extension workers and other officials of the state department of agriculture. The FGDs were carried out in randomly selected villages. The results of FGDs were summarized and analyzed for trends in the qualitative response of the participants regarding their ability to access knowledge and its effective use in agricultural production.

Results and Discussion

In order to understand the knowledge inequality in agricultural development, we use a major technological innovation in rice production introduced in the last 15 years in several parts of the developing world. The system of Rice Intensification (SRI) is a unique approach and does not involve any new seed variety which is a traditional approach to productivity increase. While SRI remains controversial among scientists and extension workers, its adoption continues and in some areas farmers seem to be abandoning the innovation after trying for a few years. Knowledge inequality among the farmers is hypothesized in this paper as a major cause for such “adopt-abandon” roller-coaster phenomenon of technological innovation and spread. We do not attempt to evaluate the technological impact of this innovation, but use SRI to understand the constraints to technological and innovation adoption mainly arising from the unequal distribution of knowledge. We begin with looking at the information needs of farmers as major entry point to this analysis. Results of a recent survey [5] on the information needs, their importance and access showed much of the knowledge base needed for SRI falls in the average importance and access. This could partly explain the adoption challenge faced by SRI. Other information needs and SRI related information also falls under neutral or below in the level of importance. However, their information needs analysis presented in [5] does not specifically address the package of practices identified and prompted under SRI. We look at these in the context of knowledge inequality below.

Innovation is crucial to increase the productivity of rice farming systems. We choose SRI to study the interaction among knowledge intensification, knowledge inequality and entrepreneurship, all of which are needed

for and part of any agricultural transformation process. The analyses of such interactions are given in three subsection. Based on the expert consultation with the research committee, extension officials and farmer focus group discussion we bring out the salient characteristics of technological innovations and how such innovations introduce inequality of adoption knowledge. The characteristics that are further analyzed relate to knowledge intensity, resource use intensity and entrepreneurial intensity.

Knowledge Intensity of Technological Innovations

Table 1 presents the principles and practice of SRI technology and the knowledge challenges and knowledge intensity as identified by the expert and focus group discussions. Although SRI brings in additional knowledge for crop intensification, the traditional package of practices that farmers are supposed to implement still hold for SRI. For example, researchers say the initial preparation of land, selecting the right variety of seed for the agro ecological zones and water and soil conditions, seed treatment, and other plant protection measures are still to be adopted to the highest standards as recommended. SRI brings in additional agronomic efficiency. However, the key question to the research and extension community is at what cost. For example, in preparation of nursery, farmers are asked to plant the seeds in rows so that individual seedling could be pulled out for transplanting. This is a major shift in the way the nursery is normally raised and requires high knowledge intensity. Transplanting using single seedling per hill increases the labor needs. But more importantly the need for extension personnel to educate the laborers who transplant rice seedling, who are mostly women, increases multifold. Due to deterioration of public extension services, the number of farmers reached out by extension agents have dramatically reduced. During this period of decline, more than 50 percent of farmers reported not to have met an extension agent in the previous year [13]. The skills needed for single seedling planting on the grid will result in high knowledge intensity and poses formidable knowledge challenge for the extension workers, farmers, and farm laborers. The knowledge intensity of water management (a key SRI principle related resources conservation) is further compounded by other resource use challenges. For example, depth of water to be maintained in the rice fields is not within the control of individual farmers. In addition, farmers lack skills to measure the depth of water stagnation in the rice fields. Since the farm laborers are not used to manage water depth of individual farms this principle introduces high knowledge intensity at all levels, of knowledge value chain. The principle on soil aeration introduces similarly a higher level of knowledge intensity. There is a confusion on this principle among farmer's focused group discussion since the objective of soil aeration is often mixed up with weed management as both are simultaneously achieved using high intensity labor involvement. Farmers in the study area would rather submerge their fields to control weeds. Farmers reported that SRI increases the need for chemical application of weedicides to control weeds under SRI mainly due to labor scarcity in the area. This increases the knowledge intensity as a wide range of weedicides are promoted by the chemical companies and farmers due to low access to extension system are under the mercy of the input dealers who push the chemicals that are in stock at the time farmers require them. In fact one expert claimed that the chemical companies promoted use of chemical weedicides under the labor scare conditions. "The addition to the weedicide knowledge, farmers who have access to laborers have to educate them in the use of the mechanical weeder. The manufacturers of the weeder have not been fully responsive to the needs and low physical ability of farm laborers. Even with government of Tamil Nadu providing subsidy to adopt the mechanical weeder, most farmers consulted said that they have abandoned its use.

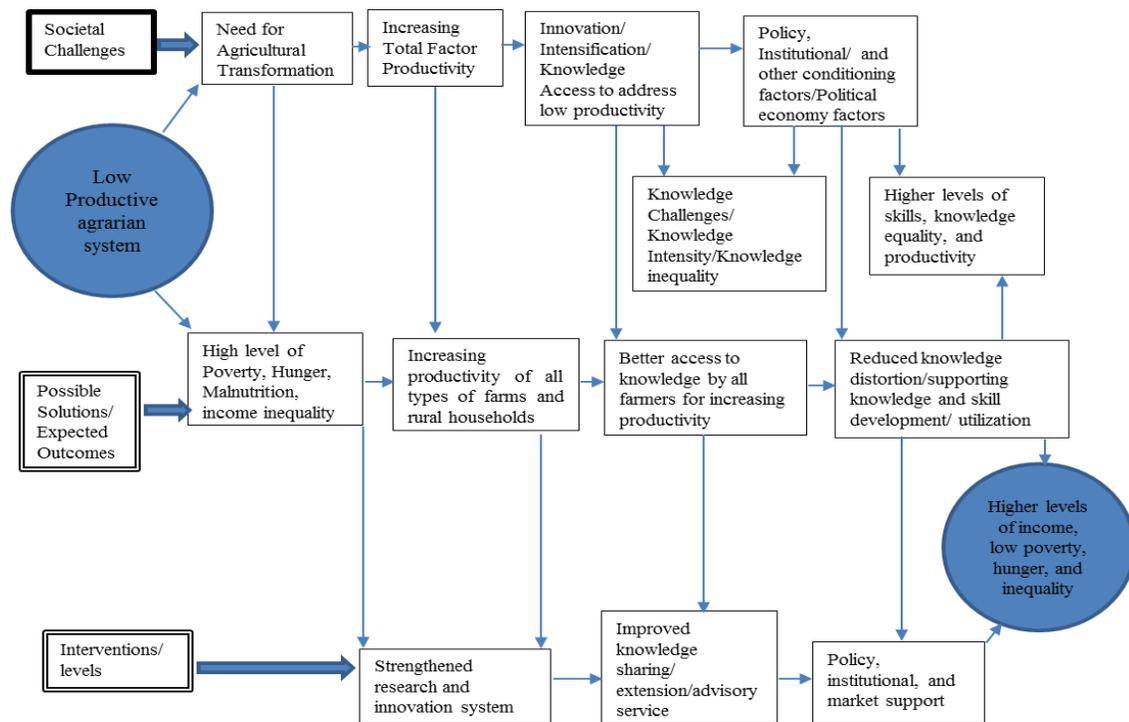


FIG. 1: CONCEPTUAL FRAMEWORK FOR STUDYING KNOWLEDGE INEQUALITY AND ITS IMPLICATIONS

Addition of organic matter to rice production is promoted as a principle under SRI. This traditional practice followed by the study area farmers has been under low level of adoption ever since the advent of chemical fertilizers introduced during the green revolution period in the 1970s and 1980s. Since then the ease of obtaining subsidized fertilizers reduced the need for organic manure application and due to increased level of mechanization, the livestock population have come down along with the availability of animal manure. The organic matter through green manure could only be applied when grown between seasons and in-situ ploughed in. Yet due to poor soil testing infrastructure, the optimal combination of organic and inorganic levels of fertilizer use remains a major knowledge challenge for the farmers. Thus farmers report that they continue the blanket application of nutrients NPK as they would under the traditional approach.

Resource Use Intensity

Table 2 presents the resources needs arising from SRI principles, the resource challenges traced by the farmers in adopting each of the SRI principle, the resource use intensity and the interaction and of resource intensity with knowledge intensity in generating challenges for reducing knowledge inequality. The data compiled based on the focused group discussions with farmers and experts involved in SRI promotion, have implications for the “adoption / abandon” process seen in the study area. While SRI adoption reduced seed rate, cost of seeds, and the number of seedling needed, the labor resources needed for planting in square grids and the associated supervision costs takes away this savings from the farmers. In addition, water management, weed management and inter-cultivation operations along with the organic matter build up recommended under SRI requires additional labor and other resources. Collectively these additional set of resources place a higher level of resource use challenges than the traditional farming practice. Due to labor shortages from the government policy of guaranteeing 100 days of assured employment to anyone needing a job in rural areas has presented enormous challenges to the adopters of SRI. Farmers

of the study area generally refer to SRI as a labor and management intensive innovation, the cost of which outweighs the increased yields that may be obtained. There was generally no negative reaction about the potential and real benefits of SRI when it is adopted fully.

The resource challenges arise generally from not just the availability of quantity of labor but the quality and skills that are needed due to increased resources use intensity involved in every SRI principle (see Column 4, Table 2). Thus, even when the knowledge is fully accessible to every farmer at the same levels, which is still a basic challenge due to poor organization of the public extension system, a high degree of resource use intensity may prevent farmers from fully adopting the SRI. When the agronomic practices are not fully followed, as suggested by SRI package, the benefits to farmers may not be significantly different from a farmer who follows less resource intensive traditional package of practices. Farmers of the study group reported that the hurdles in obtaining labor needed throughout the crop season and in increasing the quality of such labor, largely prevent them from continuing with SRI method even if they have adopted for one or two years. One farmer said “I am willing to train my labor force one year in the details of SRI, but since there is no guarantee that I would get the same labor next year, I have to train the laborers every crop season which becomes highly time consuming and may not be rewarding”. Thus, knowledge intensity and the resources use intensity combined produce high level of knowledge inequality among the farmers which result in the eventual abandonment of SRI method in the study area.

Entrepreneurship and Knowledge Intensity

Farmers who continue to adopt SRI despite the knowledge and resources challenges, tend to have higher level of entrepreneurial and managerial ability. In addition, higher social networking with the labor groups, input providers, local water management associations and with public extension workers tend to increase the adoption and continued adoption of SRI. Table 3 summarizes the interrelations of knowledge and entrepreneurial intensities in the adoption of SRI. As shown by the discussions, entrepreneurial and social management skills could help in better adoption of SRI among farmers. Farmers who see their farming as a business enterprise are likely to seek more support from various sources to reach higher productivity of rice that is possible under SRI approach. Yet for the average smallholder farmers who own less than 5 hectares of land and farmers who see rice cultivation as more of a “way of life” additional efforts to increase their entrepreneurial and management skills may not be worthwhile. But SRI introduces new entrepreneurial challenges to the traditional farming system. For example, production of seedlings in a cost effective manner requires collective action at the village level. However, collective action also requires convincing other farmers in the village to adopt the SRI approach which is a challenge since not all farmers are willing to jump in early and SRI adoption essentially depends on “seeing is believing” approach. Mobilization of skilled labor at various stages of crop production particularly during the transporting and weeding requires high level of negotiating skills mainly due to labor scarcity that prevails in the study area. Addressing labor scarcity through mechanical means requires collective action and investment from few farmers to purchase the transplanting machine, maintain it and rent it out. Thus, new innovation such as SRI, needs additional investment in improving social entrepreneurship for effective use of knowledge and application.

Concluding Remarks

Agricultural transformations require optimal use of knowledge by the society. In this paper, we have tried to develop a framework towards understanding how knowledge inequality is influenced by the nature of innovation and identified factors – knowledge, resource use, and entrepreneurship intensities. The results from the farmer group discussion indicate that policy, institutional, and market interventions may be needed to reduce knowledge inequality in addition to sharing knowledge with the farmers. The results also indicate that higher the intensity of knowledge needs, given high inequality of human capital, the inequality of knowledge is likely to be exacerbated. Knowledge sharing and distribution mechanisms determine the level of inequality of the knowledge among rural entrepreneurs. Knowledge inequality increases with knowledge distortions, mismatch of policy and institutional interventions and low incentive for collective action at the village level. Finally, knowledge intensity of innovations along with resources use and

entrepreneurial intensities need to be addressed for effective translation of knowledge into production activities. Agricultural transformations crucially depends on such translation.

TABLE 1: THE SYSTEM OF RICE INTENSIFICATION – PRINCIPLES, PRACTICE AND KNOWLEDGE INTENSITY

S. No	Principle of SRI	Actual practice	Knowledge Challenge	Knowledge intensity (rated between 1-5)
1	Very young seedlings should be used, to preserve the plant's inherent growth potential for rooting and tillering	8 – 15 day old seedlings with 3 leaves are grown in a raised-bed nursery	Moving from traditional broadcast method of nursery beds to row sowing of seeds	Raised nursery bed, maintenance of single seedlings and keeping track of age of the nursery requires knowledge intensity of 3
2	Transplanting single seedling per hill should be done quickly, carefully, shallow and skillfully, in order to avoid any trauma to the roots, which are the key to plants' success	Single seedlings are planted with a minimum time interval between the time they are taken out from the nursery and planted carefully at a shallow depth (1-2 cm)	Teaching farm labors about trauma free transplanting requires knowledge of skills transfer at farm level farmers need to train their labor force	Nursery needs to be raised next to main field, multiple nurseries needed to avoid time delay, high skilled labor force to maintain the depth of planting requires knowledge intensity of 4
3	Reduce the plant population radically by spacing hills widely and squarely, so that both the roots and canopy have room to grow and can have greater access to nutrients, sunlight, etc.	Planting at grids of either 20 x 20 cm or 25 x 25 cm (or 30 x 30 cm or even wider if the soil is very fertile) using a rope or roller marker to achieve precise inter-plant distances (to facilitate inter-cultivation)	Change from random approximate bunchy planting to single seedling planting with precise grid distance maintenance	Knowing which type of soil requires what type of grid spacing; maintenance of row spacing for inter-cultivation requires more labor and skill guided by supervision, require knowledge intensity of 3
4	Provide growing plants with sufficient water to meet the needs of roots, shoots and soil biota, but never in excess, so that the roots do not suffocate and degenerate	Up to panicle initiation: Irrigate to 2.5 cm depth after the water ponded earlier disappears and hair-line cracks are formed on the soil surface. (Heavy clay soils should not be permitted to reach the cracking stage, but still are issued less water than with usual flooding.) After panicle initiation : Irrigate to a depth of 2.5 cm one day after the water ponded earlier disappears	Gracing the soil moisture and water required by farmer/ labors, control of water movement among farmers varying sowing and planting dates, constant monitoring of water levels in the flooded zones, uncertainty of rainfall, electricity availability labor availability reduces water control	Knowledge on water needs is different cropping stages, measuring moisture levels to protect crop from wilting and from over irrigation is simply not part of extension or farm level 4 practice. This is not only new but the adoption of water management as prescribed by SRI is considered high knowledge intensity activity at (4)
5	Active soil aeration improves rice crop growth by benefiting both roots and beneficial aerobic soil organisms.	Inter-cultivation with a mechanical weeder at intervals of 10-12 days, starting 10-12 days after transplanting and continuing until the canopy closes, passing between the rows, and	Knowledge and use of mechanical weeder, interaction of weeds and crop depends on the level of water. Effective use of mechanical weeder depend on the soil and water properties	Weeding and weed management is an additional requirement that is a result of principle 4 recommended above weeding is also recommended as a practice that can help in soil aeration. This is again high knowledge intensive activity since usually weeds are killed in the

		making perpendicular passes across the field		traditional system by submerging them under water (4)
6	Augmenting organic matter in soils, as much as possible, improves performance of the rice crop, by improving soil structure and functioning and supporting beneficial soil organisms.	Application of cattle manure, green manure, bio-fertilizers, and vermi-compost is recommended. Chemical fertilizer can be used, but it does not have the same beneficial effects on soil systems	More than knowledge, availability of biomass for organic names is a constraint; production requires additional farming chemical fertilizers/ organic resources substitution requires soil testing and knowledge to use soil testing results.	Knowledge of what to apply as nutrients and in what form requires understanding of what is in the soil. Soil testing infrastructure remains poor. Even if the results are available recommendations and known, availability of inputs in time is critical for effective use of knowledge. Farmers are 5 at most disadvantage when using optional level of nutrient, leave alone the right combination of organic and inorganic fertilizers

Source: Columns 1 and 2 directly taken from SRI brochures [17]

TABLE 2: INTERACTION OF KNOWLEDGE AND RESOURCES INTENSITIES UNDER THE SYSTEM OF RICE INTENSIFICATION

SRI Principle	Resource need	Resource challenge	Resource use intensity	Implication / Interaction with Knowledge Intensity
Young seedling	Resources saving in terms of seed quantity cost reduction	Sowing seeds in the row requires high labor quantity and quality	Management and nursery is high, handling requires skills, time consuming	Skill requirement of labor is high; high knowledge intensity resulting in higher investment in knowledge value chain
Single seedling per hill	Resources saving in terms of seedling requirement	Cost of labor increase with splitting seedling and delicate transplanting	Labor intensity is high. The sill to plant single seedling is more than traditional approach	Knowledge and skill interact at the labor level who are often not convinced of single seedling approach
Planting in square grids	Planting in square grids increase the labor resources requirement and supervision resources	Labor availability, willingness to learn and implement the instructions correctly is challenge	Planting in square grid increases knowledge needs and skill intensity multi-field compared to traditional approach	Availability of labor during key operations combined with knowledge and skill intensity exacerbates knowledge inequality in adapting SRC
Water management	Field laborers with high level of experience in water control management	Water control is major challenge due to erratic rainfall, water availability and water flow	High level of resource use management crop loss could be high when water is mismanaged	Knowledge on water management is limited even among the experts. The knowledge intensity is high due to context specific resources use needed at farm level
Weed management and inter-cultivation	Labor use for weeding/weedicide use increases the cost	As in other operations labor availability / skilled labor are a challenge	Weeders need to be made available to farmers. In the absence, farmers do not have incentive to adopt this principle which renders other principles waste	SRI encourages more weeds compared to submerged cultivation of rice. Either mechanical weeder or weedicide need to be used to control weed which requires additional cost
Soil fertility management	Organic manure is needed for	Availability of organic manure is a	Organic manure needs to be applied as a substitute and a	Although application of organic manure was not

through increased use of organic manure	improving the soil structure and humus content of the soil; their production, transporting and application increases labor needs	challenge, reduced ownership of cattle of farm level due to mechanization and cost of transportation increase the cost of production	complement for inorganic fertilizers/complement for increasing soil structure/ substitute to reduce chemical nutrients requirement; a highly skilled operation at the farmers and farm labors level in the absence of soil testing information and timely availability of inputs	entirely a new technology the practice has been declining due to unavailability, bulkiness, transport cost, labor to apply all have become constraints. While it is less knowledge intensive than other elements of SRC practice resources in availability makes it resource intensive
---	--	--	--	--

TABLE 3: INTERACTION OF KNOWLEDGE AND ENTREPRENEURIAL INTENSITIES UNDER THE SYSTEM OF RICE INTENSIFICATION

SR & Principle	Entrepreneurial need	Entrepreneurial challenge	Entrepreneurial use intensity	Implication / Interaction with Knowledge Intensity
Young seedling	Common/ collective nursery requires bringing farmers together/ for collective action	Investment for the whole community or village level requires investment upfront which is not often available	Mobilizing labor and bargaining for improving their skill without increasing the labor cost requires extra entrepreneurship skills	Developing highly skilled labor without cost increase remains a challenge. Support to train laborers on a collective basis requires public extension support which is missing currently
Single seedling per hill	Mobilizing labor during the peak transplanting period competes with traditional planting	Farmers are often not trained in collective action or negotiating labor groups for transplanting rice is an entrepreneurial challenge	Quantity of labor needed is less but negotiating to access quality and skilled labor increase entrepreneurial intensity	Poor entrepreneurial skills thwarts wants effective use of knowledge gained by farmers. Knowledge transfer to laborer requires supervisory intermediaries
Planting in square grids	Hiring labor and supervising them	Negotiating with labor groups	Impart high skills year after year	Knowledge transfer is highly engaging and need hiring of extension staff which farmers cannot afford
Water management	High entrepreneurial need for negotiating with neighboring farmers water harvesting and marketing water culturing farmers do not pay for water	Culturally farmers do not pay for water given by neighboring farmers. Creating market for resource use and management remains	Managing water resource has implication for other package of practice recommended	Forming and operating water user associations hiring water management expertise and negotiation water use with neighbors all increase entrepreneurial intensity and highly sensitive to the differing knowledge of the farmers
Weed management and inter-cultivation	Organizing labor for weeding negotiating for weedicid application requires entrepreneurship	Dealing with input suppliers and managing the quality of weedicides that are applied to the field when there is competing suppliers	Organizing local artisans for manufacturing weeder suitable for local soil increase intensity of entrepreneurship. In either case making optional soil fertility management choices requires high level of recourse use skills	Weeding, improving the aeration of soil and other inter-cultivation of operations further increase the need for organizing labor and building their skill. Interacting with input dealers who often sell spurious

				chemicals increase the cost for the farmers
Soil fertility management through increased use of organic manure	Some farmers have taken up production of vermi-compost to meet this technical requirement. Production and marketing organic measures could be an profitable activity if SRI is adopted in large scale	Availability of animal manure which competes with fuel making for cow dung cake/ and the technology and investment farmers need to make vermi-compost increase the entrepreneurial challenge	Farmers have to mobilize adequate quantities of organic manure during the land preparation period which requires collective action. Increasing the number of entrepreneurs who can supply organic manure will be effective	Lack of entrepreneurs to supply organic manure to farmers, indicates high entrepreneurial intensity involved

References

- [1] Aghion, P., Bolton, P., Harris, C., & Jullien, B. (1991). Optimal Learning by Experimentation. *Review of Economic Studies*, 58, (4), 621-54.
- [2] Ali, J., & Kumar, S. (2011). Information and communication technologies (ICTs) and farmers decision-making across the agricultural supply chain. *International Journal of Information Management*, 31, 149-159.
- [3] Anderson, J. R., & Feder, G. (2004). Agricultural Extension: Good Intentions and Hard Realities. *World Bank Research Observer*, 19, (1), 41–60.
- [4] Arrow, K.J. (1962). The Economic Implications of Learning by Doing. *Review of Economic Studies*, 29, 155-73.
- [5] Babu, S.C., G. Claire J., Asenso-Okyere, K and Govindarajan, S. (2012). Farmers' Information Needs and Search Behaviors: Case Study in Tamil Nadu, India. IFPRI Discussion Paper No. 1165. Washington, D.C. IFPRI.
- [6] Callander, S. (2011). Searching and Learning by Trial and Error. *American Economic Review*, 101, 2277-2308.
- [7] Carter, B.R., & Batte, M.T. (1993). Identifying needs and audiences in farm management outreach education. *Review of Agricultural Economics*, 15, (3), 403-415.
- [8] Davis, K., Nkonya, E., Kato, E., Mekonnen, D. A., Odendo, M., Miiro, R., & Nkuba, J. (2012). Impact of farmer field schools on agricultural productivity and poverty in East Africa. *World Development* 40(2): 402-413.
- [9] FAO, IFAD, & WFP (2012). FAO/IFAD/WFP Call Upon G20 To Redouble Efforts To Fight Hunger – A joint statement issued on June 19, 2012. <http://www.wfp.org/news/news-release/faoifadwfp-call-upon-g20-redouble-efforts-fight-hunger>. Accessed June 20, 2012
- [10] Glaeser, E. L., Laibson, D., & Sacerdote, B. (2002). An Economic Approach to Social Capital. *Economic Journal*, 112 (November), F347–F458.
- [11] Luttmer, E.G.J. (2014). Knowledge Diffusion, Growth, and Inequality. University of Minnesota, Working Paper (forth coming).
- [12] Mittal, S., Gandhi, S., & Tripathi, G. (2010). Socio-economic impact of mobile phones on indian agriculture. Working Paper No. 246. Indian Council for Research on International Economic Relations. Delhi, India.
- [13] NSSO (National Sample Survey Organisation). (2005). Situation assessment survey of farmers: Access to modern technology for farming, 59th round (January–December 2003). Report No. 499(59/33/2). New Delhi: Ministry of Statistics and Programme Implementation.
- [14] Putnam, R.D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton: Princeton University Press.
- [15] Ray, D. (2006). Aspirations, Poverty, and Economic Change. In A. V. Banerjee, R. Bénabou, & D. Mookherjee (Eds.), *Understanding Poverty*. Oxford, UK: Oxford University Press.
- [16] Swanson B. & Rajalahti, R. (2010). Strengthening Agricultural Extension and Advisory Systems: Procedures for Assessing, Transforming, and Evaluating Extension Systems, Agricultural and Rural Development, Discussion Paper 45. The World Bank.
- [17] Uphoff, N. 2001. Understanding SRI? *AppropriateTechnology*. 28, 11-11-13

Some Considerations on Fiscal Problems of Eurozone Countries

*Alessio Lokar, **profalokar@gmail.com***

P&R, Portorož, Fornače, 35, Slovenia

Phone: 0039 335 53 66 345

*Lubica Bajzikova, **Lubica.Bajzikova@fm.uniba.sk***

Comenius University in Bratislava, Slovakia,

Phone: 00421250117507

Some Considerations on Fiscal Problems of Eurozone Countries

Abstract

In the relationships between countries wars and invasions are less and less a situation of present times. Countries now win or loose by means of their economy, and particularly their fiscal standing. This is even empowered with the existence of Regional Groupings like the EZ (EUROZONE), which brings (a) the advantage of a large common market, based on a common currency. The disadvantage (b) is based on the fact that the single countries loose on independence in the fiscal realm. They must start to stick to rules. But the growth of the countries is based on the existence and growth of sound companies. The advantage of the EU (EUROPEAN UNION) and EZ for single enterprises is given by the large market space created, where to strive and in which they may develop their growth potential. Examples of three companies are made, the Italian born FIAT, now becoming Dutch and English, and the Czech born Bata, which already years ago became Brazilian and Canadian, thus shifting the paradigm of globalization from the fiscal plane to the enterprise level, plus the famous German VW (VOLKSWAGEN), with its curious story. Easy explanations for success often defy common wisdom. The catchword “innovation” is nowadays often used, but none of the examples is based principally on it. Some of the reasons of success remain hidden to common rationality and are based on individual aspects.

Keywords: relationship between countries, globalization, firm performance, eurozone countries

Democratic governance and the Accumulation of Sovereign Debt

Democracy, i.e., “rule of people”, existed also in the past, but at that time it was a rather rare form of government, an example thereof is given by Classical Athens. But there it was restricted only to proven citizens, i.e., not encompassing the entire population of the city-state (Kagan, 1998). It became more diffused in modern times, with the introduction of nationwide elections and the extension of information and voting rights to everybody.

In general, humanity longs for democracy, as it consents even to the humblest human being, to have a say in running the public affairs, the so called “res publica”, which is important, if one doesn’t want to be confined to mere private existence. It is a form of government, which, we are convinced, is spreading step by step to the borders of earth. But there are still nowadays many areas and population pockets, where local politics resists to the advancement of democratic ways and behaviour.

How can we judge if democracy is present and functional in a given country (Bartels, 2008)? Its presence can be affirmed, we may guess, if the entire population has the chance of electing representatives staying at government for the period forecast by law terms, plus descending from their positions at deadline. If such elements are lacking, the suspicion of undemocratic behaviour becomes strong.

But democratic governance has also its pitfalls, the main of them connected with the fact that incumbents, in order to be elected, make a lot of promises to would be voters, out of the real possibilities of the country (Osterkamp, 2011). These promises have almost always a financial lapel, as almost everything what is realizable on earth is connected with some cost burden. In advance, it is difficult to establish the limit to which one can go with his promises, the trend very often being, especially in less experienced democracies, to advance vows, with the hidden idea, that after election it will be possible, somehow, to manage the occurrence for the best, counting also on the fact that people are forgetful. In Italy, for instance, a former prime minister, in order to be elected, pledged in several electoral occasions, the cancellation of the tax on the first home, even if Italy is the country with the 3rd highest public debt in the world. A bit of caution would have suggested maintaining the tax revenues versus expenditure, not to risk the increase of the budget unbalance (Cameron, 2010).

A similar situation is easier to avoid by non-democratic governments, as there is no need to make promises to stay on power: the top person or persons do not need the popular selection in order to stay on their positions, having so the chance of controlling better the financial balance of the country, like it happens in some countries of the Middle or Far East (Lesch, 2005).

Therefore, very often democratically elected rulers find themselves in the circumstance of accumulating expenses and costs, which tend to exceed the budget balance of the state, trying to equilibrate revenues and expenditures and creating a, so called, sovereign debt, typical for nations, which are considered to have few bridles in handling their finances (Brender, 2012).

Sovereign Debt and other fiscal Data of the Countries considered

In Table 1 are shown the 2013 data of the Public Debt as percentage of GDP, PD %, for the countries of the EU (EUROPEAN UNION), the EZ (EUROZONE) and a collection of other countries chosen with the idea of enticing comparisons between different countries. It is shown also the Fiscal Deficit, also as % of the GDP, FD%, the GDP at the official exchange rate, the GDP per capita and the growth rate of GDP, for every country listed. The data of the Table make possible to carry out comparisons between the countries listed, on the basis of the parameters considered. The countries with the highest GDP from top down are US, China, Germany, France, UK, Italy and others following. But if we consider the EU as a country, than the order changes and the EU is first, US second and EZ third. A listing based on the sovereign debt, public debt (PD) %, gives as first Japan, second Greece and third Italy. The best fiscal surplus/deficit, foreign debt (FD) %, is given by Qatar, followed by Malta and Montenegro. Most countries have a negative fiscal balance, worst of all Japan, followed by Ireland and Spain. GDP per capita is highest for Luxembourg, followed by Qatar and Switzerland. GDP growth is pretty feeble for almost all the countries considered, the only exceptions being, from top down, China, Qatar and Latvia.

A particular situation is that of the ex-communist countries, which entered into the market economy with a non existent public debt, $PD\%=0$, as this kind of economic parameter was not contemplated by the communist system of governance, but we can observe from the table, that in the short period of presence in the market economic system, things changed a lot and most of those countries exhibit now a pretty high value of the PD%, worst of all Hungary, which crossed the 60% limit given by the Maastricht standard, followed by Slovenia and Serbia. It is, as we explained before, a consequence of the introduction of democratic methods of government: the ex-communist rulers were not pressed by would-be voters to promise spending, whereas the democratic incumbents have to do it, if they want to be elected.

3. Solutions of the Debt Problem

In a debt situation, there are always at least two parts involved, the debtor and the creditor, this last one offering the financial means demanded by the debtor, so that despite its sovereignty, the receiving entity is never completely free to deal with the debt, like it would prefer, and is pressed to manage it somehow. In case of default, i.e., the impossibility to repay the debt, the consequences for a given state could be difficult: loss of credibility, skyrocketing costs for debts to come, inclusion in the list of bad behaviour and banning the possibility of using the domestic currency for debt nomination. If more debt is needed, the creditors will be asking therefore only affirmed international currencies, some of the so-called, strong ones. Therefore, it is wiser for such culprit states, if possible, to find other solutions, than mere default. To that regard, consider, for instance, the vicissitudes of Argentine in the last decades, and other similar cases (Wiggin, 2010).

If a country is totally sovereign and independent, a possible solution to the debt problem may be given by printing money, provoking inflation, which is then step-by-step denting at the debt. But this is possible only if the debt is nominated in the domestic currency. But, as mentioned, this becomes, difficult, if not impossible, for countries demonstrating low credibility. Very soon they fall in the category of rogue or less reliable states and then it becomes more and more difficult to handle the occurred situation in an acceptable manner. The debt situation of a given state cannot therefore be handled in a superficial way. The high a debt is always a problem: the solution must be found in the realm of reducing the expenditures, and re-entering into the limits given by the state revenues. In order to obtain such a result, it is also thinkable to increase revenues, in particular, rising taxes, but in that case there will be the domestic electorate, hit by heavier burdens, to protest against the measures. Politically it becomes a mess: originally, the population elected the representatives, on the basis of pledges advanced by them, afterwards, it became clear, that

it was a joke, the same representatives are charging more impositions to save the situation on the field. Often, in such situations, the political team must be changed and substituted with a new one (Buttonwood, 2011).

TABLE 1: Public Debt (PD), Fiscal Deficit (FD) to GDP Ratios, GDP (official exchange rate), Population, GDP per capita and GDP real growth rate for the EU countries, the EUROZONE and several other Countries in 2013

Number	Country	Public Debt as percentage of GDP PD%	Fiscal or Budget Surplus or Deficit as percentage of GDP FD%	GDP (official exchange rate) in billions of USD	Population in millions	GDP per Capita in USD	GDP real growth rate in %
1	World	64.8	-3.10	73,870	7,095,217,980	10,411	2.8
2	Austria	75.7	-2.90	418	8,223,062	42,600	0.4
3	Belgium	102.4	-3.20	507	10,449,361	48,558	0.1
4	Bosnia and Herzegovina	45.9	1.00	19	3,871,643	4,874	0.8
	Bulgaria	18.4	-2.40	54	6,924,716	7,755	0.5
6	China	22.4	-2.10	9,330	1,355,692,576	6,882	7.7
7	Croatia	66.2	-4.40	59	4,470,534	13,229	-1.1
8	Cyprus	113.1	-5.70	22	1,172,458	18,576	-8.7
9	Czech Republic	48.8	-2.10	195	10,627,448	18,330	-0.9
10	Denmark	47.0	-2.50	324	5,569,077	58,232	0.1
11	Estonia	6.0	-0.50	24	1,257,921	19,302	1.5
12	Finland	56.5	-2.30	260	5,268,799	49,271	-0.6
13	France	93.4	-4.10	2,739	66,259,012	41,338	0.3
14	Germany	79.9	0.10	3,593	80,996,685	44,360	0.5
15	Greece	175.0	-4.00	243	10,775,557	22,579	-3.8
16	Hungary	79.8	-2.90	131	8,919,128	14,643	0.2
17	Ireland	124.2	-7.20	221	4,832,765	45,709	0.7
18	Italy	133.0	-3.30	2,068	61,680,122	33,528	-1.8
19	Japan	226.1	-8.20	5,007	127,103,388	39,393	2.0
20	Korea, North (*)	10.7	-0.40	28	24,851,627	1,127	1.3
21	Korea, South	35.8	0.70	1,198	49,039,986	24,429	2.8
22	Kosovo	9.1	-1.80	7	1,859,203	3,846	2.5
23	Latvia	39.2	-0.20	30	2,165,165	14,031	4.0
24	Lithuania	40.2	-2.00	47	3,505,738	13,324	3.4
25	Luxembourg	22.9	-1.70	61	520,672	116,273	0.5
26	Macedonia	34.3	-4.10	11	2,091,719	5,092	3.1
27	Malta	75.3	5.50	10	412,655	23,121	2.1
28	Montenegro	52.1	1.50	5	650,036	6,950	1.5
29	Netherlands	73.3	-3.80	801	16,877,351	47,430	-1.3
30	Poland	48.2	0.00	514	38,346,279	13,402	1.3
31	Portugal	127.8	-5.10	219	10,813,834	20,280	-1.8
32	Qatar	30.6	9.10	213	2,123,160	100,369	5.5
33	Romania	38.6	-2.50	189	21,729,871	8,693	3.5
34	Russia	7.9	-0.50	2,113	142,470,272	14,831	1.3
35	Serbia	61.2	-4.90	44	7,209,764	6,058	2.0
36	Slovakia	55.5	-3.40	97	5,443,583	17,812	3.3
37	Slovenia	71.7	-4.40	47	1,988,292	23,548	-1.1
38	Spain	93.7	-6.80	1,356	47,737,941	28,405	-1.3
39	Sweden	41.5	-2.00	552	9,723,809	56,768	0.9
40	Switzerland	33.8	1.40	646	8,061,516	80,159	2.0

41	Taiwan	38.9	-2.50	485	23,359,928	20,749	2.2
42	Turkey	36.6	-2.10	822	81,619,392	10,069	3.8
43	United Kingdom (UK)	91.1	-3.60	2,490	63,742,977	39,063	1.8
44	United States (US)	71.8	-4.00	16,720	318,892,103	52,432	1.6
45	European Union (EU)	87.1 (***)		17,300	509,365,627	33,964	0.1
46	Eurozone** (EZ)	92.6 (***)		13,115	331,963,357	39,507	

Sources: CIA World Fact-book, <https://www.cia.gov/library/publications/the-world-factbook/geos/bu.html>;

* There is no data of public debt, but only foreign debt.

**http://en.wikipedia.org/wiki/Eurozone#Comparison_table;

***<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=tab&init=1&language=en&pcode=tsdde410&plugin=1>

4. The Problems of the EZ

A better solution of this situation we find in the EZ (EUROZONE), where the member states share a common currency, the EURO, which may be labelled as a strong currency, guarded by the ECB (EUROPEAN CENTRAL BANK) and by the tradition of states like Germany, with past unfavourable experiences of unbalances and hyperinflation. At the beginning, the EURO was considered as a foolhardy experiment, because of the wide variety of economic performances of the member countries: some of them good, like Germany, Nederland, Finland, or Austria, some dire, like Greece, Cyprus, Ireland and some states of Eastern Europe. The engineers of the EURO understood fully this aspect; therefore, they obliged the members of the EZ to sign a commitment looking for convergence in the real economies of the single members; but this is a task, which is again easier to promise than to perform. Therefore, a lot of traditional economists forecast that the EURO experiment was going to fail and that some states will have sooner or later to be expelled of the EZ, not being able to comply with the common currency regime, because of the difficulty in keeping their accounts in a sound fashion (Martin, 2011).

What happened afterwards, in the reality, was that the EU, by creating particular funds (ESM, EFSF and EFSM, 2010) had to help several states of the EZ, such as Greece, Ireland, Spain, Cyprus and others, financing rescue operations. Every country of the EZ had to contribute with its money to the existence of such funds. At the beginning many states wanted to abandon that kind of operation, asking their money back. But at the end, after a lot of meetings and discussions, the operation succeeded and until now, we can observe, no state decided to abandon the EURO. Having at disposal a strong currency like the EURO represents a stress, but also an advantage, even for the weaker economies, like the fathers founders of the EURO forecast.

5. EURO Disadvantages and Advantages

The disadvantages and advantages of the EURO can be listed as follows:

The main disadvantage is connected with the strength of the currency: it is rising prices for the products exported, making the goods of the country less price competitive on foreign markets.

But there are also advantages, the main of them being the following ones:

1. The use of a strong currency, which does not lose value in time, or even gaining it, in comparison to the competitive currencies, eases domestic economic performance and trade, reducing domestic prices; at income parity everybody and every company is able to buy more goods. More buying has the consequence of also more selling and hence keeping the economy on the run.
2. The interest amount for the debt to be paid by the debtor is lower, freeing monetary resources for other development scopes.
3. The common currency, extending over several countries, facilitates trade between them, making possible international price comparisons for goods and services and cancelling currency exchange costs.
4. There is a lower cost for materials and commodities imported from outside the EZ.

Let's consider this last aspect; it is an advantage, in particular, for transformation economies: raw materials and/or commodities are bought at lower prices on the international market; moreover, manufactured products, if they

are finished in the given country, and they are at a higher quality level, find a market, because of their sophistication, not only because of their price convenience. We can make an example from a simple economic area: naturally untreated oranges can be sold with the label of environmental high quality. They require, during the growing season, a lot of work with agricultural process, needing fuel for working the ground and pumping water for irrigation, which is both cheaper having at hand a strong currency, whereas, the final products fetch higher prices on the market, due to their qualitative excellence.

6. Generalization of this Concept to the Economy as a Whole

This aspect can be generalized: in an economic environment where there exists a strong currency, companies must tend to improve their performance by innovation of products or improved management, in order to face, from one side, the bigger abundance of production factors, expressed by their lower price level, and on the other, the bigger selling effort of finished products on the market. If they don't change anything, at parity of conditions, they will loose in competitiveness, falling under the menace of national and international competitors. Hence, the stronger currency is going to press companies and single citizens to change, seeking for important improvements. But not every company is able to perform such improving changes: under hardship the best survive and thrive, ascending to a higher level of life, whereas the less good, submerge and often also drown. Some politicians condemn the membership in the EZ for this kind of hardship, but manifestly they mostly represent companies not able to change and improve their performance in order to overcome the EZ hardships. Companies, which are able to solve the described problems by themselves stay on their own legs and do not resort to politicians for help, whereas the opposite is true for companies, being stuck in their performance improvements. Some Italian politicians declared recently the EURO as being a "criminal" currency, used by the stronger members of the EZ, aiming at destroying their weaker competitors. It is true that politicians have the task of welfare, i.e., taking care of the weak, but if they are honest, they have to consider also the quality of the companies issuing such help cries.

The economy is a strange reality: economic conjuncture, positive or negative, doesn't explain everything about the success, or failure of companies and even of whole economic systems. Some companies emerge in difficult times and circumstances, where the mediocre ones disappear. Nowadays there is a tendency to explain everything with conjuncture and innovation, or lack of them. But examples, which I would describe, show that success in the reality has often not much to do with these both aspects. In the extended abstract I quoted some cases, which I resume at this point.

7. Some Cases of successful Companies regardless of economic conjuncture

The Czech company Bata, selling shoes, a rather conservative, standard and not very innovative area of production, reached nowadays the goal of a quarter million of employees in the whole world, certainly a remarkable level. In order to understand how they mastered the difficulties, which have arisen in the operating environment during their growth, we can shortly tell the history of the Bata family: the Batas were a traditional family of shoemakers, originating from Prague. They were active in the area already from 1600. What propelled them forward, were orders for large amount of shoes, needed by the Austro-Hungarian army during WWI (WORLD WAR I). But after war finished, a wider economic crisis hit Europe and the world as a whole, pushing to low levels the demand for everything, also for shoes. Many shoe producers in such circumstances collapsed, and had to shut off their activity, but not the Batas. In that particular difficult moment they resorted to a kind of cheap rubber shoe, which became fashionable with customers, being sold at lower price to the impoverished but needy clients. So, the Batas remained alive, and between the two wars their situation improved quickly, consenting them, by picking up some Socialist and Scientific-Managerial (Taylor, 1919) ideas, even to invest heavily not only in the management of the company, but also in the city of Zlin, building factories and apartments for employees, so that Tomas Bata, the boss of the company, won the position of Zlin's mayor. But another hit pounded the company: Tomas suddenly died in a plane accident during landing. A third blow happened after WWII (WORLD WAR II), when Czechoslovakia entered into the communist economic system, inimical to free enterprise. The son of the company's founder understood in time the political danger

and shifted the assets at first to Brazil and later to Canada, from where he ruled the enterprise also after WWII, developing it to the present global size. It is an example of how the owners and managers were able to keep alive a company during economic and political hardship and even to enhance it to the successful global level of nowadays.

The Italian company FIAT was founded in Piedmont, the region from where Italy's unification started. It was able to exploit very much the creation of the Italian market, much bigger than the small market of Piedmont, thriving particularly during WWI and WWII, when Italy embarked in remarkable war adventures, needing the cars, trucks, guns, tanks and planes, produced by the company. After WWII the company was able to exploit the Italian economic miracle and the following trend to mass motorization. A difficult situation arose when Italy became member of the EZ, also because the previous owners became old, sick and passed away. It took several years for the new generation to come to power and in the meanwhile there were doubts about the survival of the company. The German weekly *Der Spiegel* published an article labelling the company as "Der marode italienische Autohersteller", "The ailing Italian car maker", speculating even that the company would be sold to Chinese buyers. But then came a turn for the best: a new general manager was appointed, Sergio Marchionne, and FIAT started with a new flare. The company was even able to acquire the American Chrysler, previously discarded by the German company Mercedes Benz. Recently it changed the name signalling the new global allure, shifting its seat from Turin to Holland and London and looking optimistically forward to the goal of becoming the 7th biggest car company in the world, giving jobs to some quarter millions of employees.

Another company, which went through lots of interesting shifts and shocks, was the German VW (VOLKSWAGEN). It is renowned that VW was a direct creation of the Hitler era. Between his terrible deeds, the "Führer" realized also some, few, positive ones: the invention, of double lane highways, subsequently copied by the whole world. Another one was the founding of the car company VW. In his mind, the highways and VW were connected, as they had a role in the imagination of Hitler's paradise on earth: the highways to connect all the corners of the immense Arian empire, which he planned to build in Europe, after his conquest wars, and the VW, as a car where to find place the typical Arian family like imagined by him: a tall, fair hair father at the steering wheel of the beetle, the typical and standard car of the VW beginnings, a mother with a yellow bride, seating nearby him, and on the back seats a son and a daughter, all of them riding gloriously along the highways to the Ural border of Great Germany. The war collapse impeded the realization of such dreams. After WWII the employees of VW were asked to carry out their jobs devoid of wages for some years, in order to reset the factory. In the middle of the twentieth century, the son of the first Nazi director Piech, became, at first general manager, and later owner of the company, which reached the employment level of more than a half million workers, engineers and clerks. It is, considering also all its affiliates, the first, or the second car factory in the world, and one of the biggest companies worldwide, a difficult but successful itinerary in modern history, going through areas, which are surprisingly different from the modern usual and standard historical narrative.

8. Conclusive Remarks

Much more examples could be narrated, but these few ones are shown in order to extrinsic, how economy is based on life, efforts and experiences of people, who are daily facing high steps to be overcome, difficulties and problems. Some of them, the best ones, are able to do it with ingenuity, common sense and courage, reaching a higher economic and/or managerial level, others, like already told, collapse and disappear. It is a reality, which is not possible to describe using mathematical, statistical and econometrical models, like some economist would like to do, but much more by a narrative telling the difficulties and successes of real life struggles. Economy and Management own a deeply human lapel, being an essential part of the survival history of the human race.

Once the subject "Economics" was called "Political Economics", in order to stress out its deep ties with human behaviour and policies. More recently, scholars preferred to mimic the so-called exact sciences, using formulas and aspects from mathematics and statistics, but in the end, if we are culturally honest, they never succeeded introducing exactness and scientific accuracy in the economic and managerial realms. Recently Elizabeth, Queen of England, asked in an interview: how is it possible, that so many economic and managerial scholars were not able to forecast the recent fatal economic crisis? The answer is simple: in exact sciences it is possible to forecast what is going

to happen with the phenomena observed, but not so in Economics and Management, which is a different kind of knowledge, much more connected with human life, even if economic scholars do not like this aspect, preferring a different version of their area of interest, based on mechanisms, like they exist in physics, astronomy, or even chemistry, with exactly, or close to exactly, predictable outcomes. In Economics and Management a lot depends on human beings, their virtues and failings, which are much less predictable. Some scholars affirm that exact sciences are based on experimentation carried out in laboratories. Laboratory work was hence introduced also in Management and Economics by means of the so-called entrepreneurial incubators, where future entrepreneurs would have a favourable terrain to put their seeds. It is an idea, cursing already for some decades: incubators were proposed and tried all over the world. But how many real managerial successes, like the three, described above, were realized until now on the basis of an incubator start up? As far as I know, not even one. Mostly such incubators start with money offered by the public hand and when that money is finished, also the incubating businesses are mostly closed. Experience, not experiments, show that successful entrepreneurs grow by themselves, pounded and resisting fate and if they are able to overcome all the vicissitudes posed by life and environment, they come out as victorious, reaching also a higher level of economic existence.

References

- [1] Bartels Larry M. (2008), The Study of Electoral Behavior, The Oxford Handbook of American Elections and Political Behavior, <http://www.princeton.edu/~bartels/electoralbehavior.pdf>
- [2] Brender Anton, Pisani Florence, Gagna Emile (2012) The Sovereign Debt Crisis, Brookings, <http://www.brookings.edu/research/books/2013/thesovereigndebtcrisis>;
- [3] Buttonwood, Greece and the Sovereign Debt Crisis, The Economist, Jun 8th, 2011; <http://www.economist.com/blogs/buttonwood/2011/06/greece-and-sovereign-debt-crisis>
- [4] Cameron Allan, The Berlusconi Bonus, Vagabond Voices, 2010; <http://www.amazon.co.uk/The-Berlusconi-Bonus-Adolphus-Confession/dp/0956056091>
- [5] EFSF (European Financial Stability Facility), ESM (European Stability Mechanism), EFSM (European Financial Stabilisation Mechanism), Politics and Government of the European Union (2010), http://en.wikipedia.org/wiki/European_Financial_Stability_Facility
- [6] Kagan Donald (1998) Pericles of Athens and the Birth of Democracy, Free Press, http://www.goodreads.com/book/show/383104.Pericles_of_Athens_and_the_Birth_of_Democracy;
- [7] Lesch David W. (2005) The new Lion of Damascus, Yale University Press, http://yalepress.yale.edu/yupbooks/excerpts/lesch_lion.pdf
- [8] Martin Garret (2011) Europe's North-South Divide-A Stubborn Chasm, The European Institute, <http://www.europeaninstitute.org/EA-August-2012/europes-north-south-dividea-stubborn-chasm.html>
- [9] Novackova Daniela (2014) The Legal Instruments of EU Fiscal and Monetary Stability. In Belohlavek et al (2014) The Role of Governmental and Non-governmental Organizations in the 21st Century.
- [10] Osterkamp Laurel (2011) Campaign Promises, Kindle Edition, 2011; <http://www.goodreads.com/book/show/12471052-campaign-promises>
- [11] Papula Jan (2008) Strategia a BPM. BPM portal c. 2.
- [12] Taylor Frederick Winslow (1919) The Principles of Scientific Management, Harper, 1919; http://en.wikipedia.org/wiki/File:The_Principles_of_Scientific_Management,_title_page.jpg
- [13] Wojcak Emil, Mrazik Peter (2013) Vplyv neetickeho spravania sa na zrod a priebeh hospodarskej krizy. Manazment v 21. storoci : problemy a vychodiska. Trencin : Vysoka skola manazmentu, pp. 59-65. ISBN 978-80-89306-20-6
- [14] Wiggin Addison (2014) Sovereign Debt Default: learning from Argentine Mistakes, Agora Financial, <http://dailyreckoning.com/sovereign-debt-default-learning-from-argentine-mistakes/>

The Effect of Board Election and Corporate Governance on the Earnings Quality and Value Relevance of Earnings and Book Value

*Shuling Chiang, slchiang@webmail.ntcb.edu.tw
National Taipei College of Business
Gary Kleinman, Kleinmang@montclair.edu
Montclair State University
Picheng Lee, plee@pace.edu
Lubin School of Business - Pace University*

The Effect of Board Election and Corporate Governance on the Earnings Quality and Value Relevance of Earnings and Book Value

Abstract

This study examines the moderating impact of board of director elections and corporate governance on (a) the relationship between discretionary accruals and earnings quality, and (b) the relative value relevance of earnings and book value on stock valuation. The importance of effective mechanisms monitoring management is well-known, with monitoring mechanisms including the board of directors and other aspects of corporate governance. We used a sample of Taiwanese firms whose board was elected every three years from 2003 to 2013. While elections led to lower earnings quality, having better corporate governance led to greater earnings quality. Our results show that earnings have reduced value relevance, while book value had increased value relevance in the presence of board elections. Finally, given board elections, the relative value relevance of EPS and BV on stock price was not fully moderated by strong corporate governance.

Introduction

The importance of having effective governance mechanisms to oversee the activities of upper management has long been well-established in the accounting and finance literature (e.g., Jensen and Meckling, 1976). Management, left to its own devices, or subject to inadequate monitoring mechanisms, has long been considered prone to pursue its own ends, even at the expense of the stockholders of the company (e.g., Chin, Kleinman, Lee & Lin, 2006). The importance of effective monitoring mechanisms is highlighted in this literature. One such monitoring mechanism is the board of directors of the organization. Boards of directors are typically charged with representing the shareholder interest with respect to the safeguarding of corporate—ultimately shareholder—assets and with assessing the performance of management. Typically, members of the boards of directors are elected by shareholders. These electoral arrangements may vary based on country company law, and - consistent with country company law - based on corporate choices consistent with that law. A perceived failure of the board to effectively represent the shareholders may impact the probability that particular members of the board of directors may be reelected to his/her post. If so, then the monitoring mechanisms over management itself may be perceived to have failed and the credibility of corporate financial statements may be damaged. The success of corporate governance in managing management is, in part, reflected in the financial statements themselves. As International Accounting Standards (IAS) 1.9 states, “Financial statements...show the results of the management’s stewardship of the resources entrusted to it.” Thus, poorer results, other things equal, suggest poorer management stewardship.

Researchers have examined whether better corporate governance reduces the proclivity of managers to manipulate earnings. The general conclusions are that better corporate governance does dampen the propensity of managers to manipulate earnings (Duh et al. 2009; Peasnell et al. 2005; Klein 2002; Beasley 1996; Agrawal and Knoeber 1996). Prior literature, however, does not examine whether the impact of board elections and, separately, other aspects of strong corporate governance, will affect the relationship between future earnings and discretionary accruals.

In this study, we used Taiwanese firms to examine the relationship between board elections and other elements of corporate governance (e.g., CEO duality) and (a) earnings persistence on the one hand and (b) the value relevance of earnings and book value on the other. Article 195 of Taiwan’s Company Law stipulates that the term of a board director in the publicly-listed firms must not exceed three years, although a board member whose three year term is expiring is eligible to stand for reelection¹. In Taiwan, the three year terms for board members are uniform. In addition, all members of the board are elected at the same time. Unlike the United States, for example, there is no practice of staggering board member elections, a practice in which one-third of the board is elected each year, with the other two thirds of the membership not standing for election in any particular year. Accordingly, using Taiwanese

¹ The weblink of Taiwan’s Company Law is <http://eng.selaw.com.tw/FLAWDAT01.asp?LSID=FL011292>

data permits a study like this to be undertaken. Further, unlike other venues, in which staggered board elections may be held, the Taiwanese practice of placing the entire board of directors up for election at the same time heightens the importance of convincing voting shareholders of the worthiness of the members standing for election. One way to do so, of course, is to present a picture of the firm as performing well financially. This may be done through providing excellent board oversight of managerial decisions with the result that the firm does, indeed, perform very well, or by fostering the use of accounting practices that present the firm as performing better than it actually does. The latter can be accomplished by using discretionary accruals to boost reported net income. Using a sample of 7,456 Taiwanese firm-years whose data was available from 2003 through 2013, we examine the impact of board elections with broader corporate governance measures on (a) earnings persistence and (b) on the relative importance value relevance of reported earnings per share and book value of assets on the stock price of sample firms. We find that poorer corporate governance is associated with greater use of discretionary accruals, as calculated using the modified Jones Model (e.g., Dechow et al., 1995; Martin, 2013) and that both poorer corporate governance and greater use of discretionary accruals is associated with reduced earnings persistence. This finding is consistent with the hypothesized link between the need of firms to improve financial appearances in the face of an election that might be of consequence to both the running members of the board of directors on the one hand and consequently to management of the firm on the other. The presence of board elections changes the relative value relevance of earnings and book value. Investors seemed to give greater value relevance to book value in stock valuation. Better governance lead to greater value relevance of earnings increases but decreased the value relevance of equity book value. This finding is consistent with corporate governance mechanisms perceived to be better at providing more credibility to reported financial statement information (DeAngelo, 1988). But, in the presence of board elections, the relative value relevance of earnings and book value on stock price was not moderated by strong corporate governance.

There are two contributions of this study. First, the study supports the notion that boards of directors, like senior firm management, have incentives to allow the use of income-manipulating tactics such as making discretionary accruals in order to foster their own well-being. Boards, of course, receive both emoluments, prestige and enhanced contact networks from their service, and therefore have incentives to perform—or be perceived to perform—their oversight role well. Second, the results of this study also support the importance of the board of directors being perceived as performing an effective monitoring role since the failure to perform that role undermines the credibility of the financial statements, as represented here by the earnings and book value numbers.

In section II, this paper presents a literature review and hypotheses. In section III, the methodology and data sources are presented. In section IV, the results are described, and in section V, the conclusions drawn from the study are presented, along with suggestions for further research.

Literature Review and Hypotheses

Earnings are a key signal of corporate success that managers provide to investors. Firms can manage earnings to convince investors that the corporation is doing better than it actually is. DeGeorge, Patel and Zeckhauser (1999) believed earnings management arises from the game of information disclosure that executives and external investors have to play: investors make decisions on the basis of financial statements provided by managers. This provides an incentive to managers to manipulate earnings to influence outsiders to invest, even if managers have to give away earnings. Besides, the compensations of managers (including salary and bonus) are closely associated to earnings performance. This is another incentive for managers to distort accounting records and manipulate earnings (see also Collins and DeAngelo, 1989). In general, there are two different perspectives for discretionary accruals. First, managers use discretion to disclose private information to investors, which is known as signaling discretion. The second view is that managers will use discretion to manipulate financial reporting systems to enhance personal welfare at the expense of shareholders. This is called opportunistic discretion (Watts and Zimmerman, 1986).

When a company is sending signals, discretionary accruals help to increase earnings persistence and value relevance, improving earnings quality. On the other hand, when the company tries to conceal information, discretionary accruals will reduce earnings persistence and value relevance, thus hurting earnings quality. During board elections, incumbent boards of directors or managers may have the intention of signaling the company's value

as they may face a battle to retain their board seats. They tend to signal the company's value through the use of discretionary accruals. Such manipulation is indicative of earnings management, where earnings quality is demonstrated through the use of discretionary accruals. Earnings quality is enhanced in situations where such accruals tend to make the reported earnings better reflect the long term underlying capacity of the firm to generate earnings. Also, though, discretionary accruals can be utilized by managers to conceal poor operational results or even illegal conduct. In this case, the use of discretionary accruals reflects opportunistic earnings management. The result is manipulations that will lower earnings quality.

DeAngelo (1988) demonstrated how proxy contests for board of director seats may be impacted by the firm's failure to maintain acceptable earnings levels, as opposed to stock prices. DeAngelo found that pre-proxy contest accounting returns were beneath the returns for the market itself. This was not true of the pre-contest stock returns. DeAngelo (1988) notes that during the election contest, managers tended to use their powers over the accounting system to present a more positive portrait of the firm, in the process providing stockholders with a more favorable impression of the incumbent management's performance. DeAngelo (1988: page 4) writes that "these findings indicate that corporate earnings performance plays a role in the process through which alternative managers compete for stockholder support." Our first hypothesis is presented below:

H1: *In the presence of board elections, managers are more likely to exercise their discretion in ways that reduce earnings quality.*

Given that an owner may effectively control a firm, he or she also controls the production of the firm's accounting information and the choice of its reporting policies. Accounting has a different role in a concentrated ownership context as opposed to a diffused ownership context. The accounting literature contains extensive research and theorizing on how the agency problem between owners and managers affects the role of accounting in management compensation contracts and how the reporting incentives of managers affect a firm's accounting information quality (e.g., Jensen and Meckling, 1976). Will improving the monitoring system, as exemplified by using a better corporate governance regime, decrease the likelihood of managerial use of discretionary accruals to affect reported earnings during board elections? Better corporate governance should result in a company using discretionary accruals more prudently, inhibiting the use of accruals to cover poor operational results. A reduction in inappropriate or problematic discretionary accruals should have a positive influence on earnings quality. To answer the question above, good corporate governance can change the degree to which a company uses inappropriate discretionary accruals, and thus positively influence earnings quality. Therefore, we develop the following hypothesis:

H2: *In the presence of board elections, manager's actions that may reduce earnings quality will be moderated by strong corporate governance.*

A key indicator of the value of a firm investment to stakeholders is the price of the firm's shares. Much else about a firm is opaque. Accounting numbers are produced by accounting systems whose operations are cloaked in the mystery of accounting rules, compounded by accounting practices that may stretch or even violate the rules. Thus, the usefulness of reported earnings in affecting the level of a firm's stock price may be problematic. Nevertheless, the operations of firms have been found to impact the value relevance of accounting information. For example, Hu, Qi, Tian, Yao and Zheng (2013) found that ineffective internal controls had a negative impact on the value relevance of earnings. If internal controls are weak, then the likelihood of a material misstatement entering the financial statements is stronger. The authors specifically found that, in the presence of ineffective internal controls, the value relevance of earnings per share and book value was reduced. Well-designed and implemented internal controls, of course, have the capacity to bind the actions of all organization members but those whose organizational position places them above the internal control system, viz., top management and the board of directors. Accordingly, when the board of directors and management have incentives to manipulate the financial statements, even a very strong internal control system will not stop them. Bae and Jeong (2007) investigated the relationship between corporate governance systems in South Korea and the value relevance of earnings and book value to stock prices. The authors found that in cases of cross-ownership, there was a reduced value relevance of earnings and book value to stock prices. In the presence of foreign ownership, however, there was greater value relevance of these items. Bae and Jeong regarded cross-ownership as a proxy for the conflict between controlling and minority shareholders. Bae and Jeong's (2007) findings suggest that less immediately-interested ownership interests, such as foreign ownership, may act as a brake on the propensity of management and the board to manipulate the financial statement accounts.

Marquardt and Wiedman (2004) studied the impact of earnings management under circumstances wherein management had the incentive to engage in opportunistic earnings management. The authors noted that prior literature has established that financial statement information becomes less value relevant in circumstances where the managers have incentive to manipulate earnings because management is participating in secondary market sales of personal shareholdings. Specifically, the authors note that in these circumstances, the value relevance of earnings declines relative to the value relevance of book value. Marquardt and Wiedman (2004) note that prior literature (e.g., Burgstahler and Dichev, 1997) hold that there is a complementary relationship between earnings and book value in the determination of the price of the stock. When the earnings calculations cannot be trusted due to earnings manipulations via discretionary accruals, the investor is forced to rely more heavily on firm book value.

The findings of Marquardt and Wiedman (2004), Bae and Jaeong (2007) and Hu et al. (2013) argue for the importance of understanding the relationship of a firm's control structure to the value relevance of earnings and book value. While the previously cited studies looked at internal control system weaknesses, controlling versus minority shareholders, foreign stockholdings, and management having incentives to behave in self-serving ways, the studies did not look at the relationship between the boards of directors elections and more generalized measures of corporate governance on the one hand and the value relevance of earnings and book value to share prices on the other. We address these latter issues here.

Fischer, Gramlich, Miller and White (2009) study the relationship between uncontested election votes for boards of director members and investor reactions to subsequent events. In their study, they tabulated the percentages of votes actually cast for members of boards of directors in uncontested directorship elections. They then compared these vote percentages with stock price reaction to such subsequent events as managerial turnover. The authors found that when high percentages of eligible votes were cast for director-candidates, there was a smaller stock price reaction to managerial turnover than when lower percentages of eligible votes were cast for director-candidates. Further, Fischer et al. (2009) found that relatively lower percentages of votes cast for board candidates were associated with greater board turnover, CEO resignation, reduced CEO compensation, etc. Collectively, Fischer et al.'s results suggest that boards of director votes meaningfully impact the future behavior of the board, the CEOs, and acquisition and divestiture behavior. Given the likelihood of such outcomes, then, boards of directors and the managements which, in theory, serve at investors' discretion have important reasons to foster investor confidence in the incumbent boards by, for example, manipulating earnings performance as portrayed in the DeAngelo (1988) study. Therefore, earnings quality is likely to be lower because of higher discretion exercised by firms when managers expect the boards to be elected. The likely reduction in earnings quality is likely to reduce the relationship between earnings and stock prices. The relationship between book value and stock prices, however, is less likely to be affected since book value, on a percentage basis of a firm's net worth, is less likely to be pronouncedly affected by discretionary accruals than earnings are. Accordingly, our two alternative hypotheses are presented below:

H3a: *In the presence of board elections, the value relevance of earnings decreases.*

H3b: *In the presence of board elections, the value relevance of book value increases.*

Researchers sought to examine whether higher levels of corporate governance positively influenced stockholders' perceptions of a firm and hence firm value. The general conclusion is that a higher level of corporate governance does have a positive influence on firm value (e.g. Lins, 2003; Yeh et al, 2001; Core et al., 1999). The work of Marquardt and Wiedman (2004), Bae and Jaeong (2007) and Hu et al. (2013), described above, is supportive of this as well. Hence, our hypothesis is presented below.

H4: *In the presence of board elections, the value relevance of earnings and book value on stock price will be moderated by strong corporate governance.*

Methodology and Sample Selection

We follow prior research (e.g. Sloan, 1996; Xie, 2001) in exploring the relationship between board elections and corporate governance and earnings persistence and discretionary accruals. Further, we extend the valuation framework developed by Ohlson (1995) to explore the impact of board elections and corporate governance on the relative value

relevance of earnings and book value. We employed multiple regression analysis to evaluate the hypotheses. These regression models are described next.

Regression models of board election and corporate governance on earnings quality

In this study, earnings quality is measured by earnings persistence as suggested by Sloan (1996) and Xie (2001). Discretionary accruals estimated by the modified-Jones model are employed as proxy variables for the degree of earnings management. The model is further modified by cross-sectional industry-specific data input (different companies in the same industry during the same time period). The following regression models are used to examine the impact of operating cash flows (OCF), nondiscretionary accruals (NDA), discretionary accruals (DA), corporate governance (CG), and board election (BD) measured at time t on earnings deflated by beginning total assets (EARN) at time t+1. There is a possibility that year effects and/or industry effects may have an impact on the results. Accordingly, we control for year and industry affects here as well.

$$EARN_{it+1} = \alpha_0 + \alpha_1 OCF_{it} + \alpha_2 NDA_{it} + \alpha_3 DA_{it} + \text{Year} + \text{Industry} + \varepsilon_{it} \quad (1)$$

$$EARN_{it+1} = \alpha_0 + \alpha_1 OCF_{it} + \alpha_2 NDA_{it} + \alpha_3 DA_{it} + \alpha_4 BD_{it} + \alpha_5 (DA_{it} \times BD_{it}) + \text{Year} + \text{Industry} + \varepsilon_{it} \quad (2)$$

$$EARN_{it+1} = \alpha_0 + \alpha_1 OCF_{it} + \alpha_2 NDA_{it} + \alpha_3 DA_{it} + \alpha_4 CG_{it} + \alpha_5 (DA_{it} \times CG_{it}) + \text{Year} + \text{Industry} + \varepsilon_{it} \quad (3)$$

$$EARN_{it+1} = \alpha_0 + \alpha_1 OCF_{it} + \alpha_2 NDA_{it} + \alpha_3 DA_{it} + \alpha_4 BD_{it} + \alpha_5 (DA_{it} \times BD_{it}) + \alpha_6 CG_{it} + \alpha_7 (DA_{it} \times CG_{it}) + \alpha_8 (DA_{it} \times CG_{it} \times BD_{it}) + \text{Year} + \text{Industry} + \varepsilon_{it} \quad (4)$$

The coefficient of the interaction term $DA \times BD$, α_5 , is used to test the impact of board elections on the contribution of discretionary accruals to earning persistence. If the interaction term coefficient (α_5) is significant, then the first hypothesis, H1, will be deemed to be supported. In Model 4, the coefficient of $DA \times CG \times BD$, α_8 , is used to examine whether strong corporate governance will alleviate the relationship between earnings persistence and the combined effect of board elections and discretionary accruals. If the interaction term coefficient α_8 is significant, then the second hypothesis, H2, will be deemed to be supported. Table 1 summarizes the definitions of all variables employed in the current study.

TABLE 1: VARIABLE DEFINITION

Symbol	Variable	Measure
EARN	Earnings	Earnings from continuing operations, divided by total assets at the beginning of the year
OCF	Operating cash flows	Cash flow from operations, deflated by total assets at the beginning of the year
NDA	Non-discretionary accruals	Non-discretionary accruals were estimated by using modified Jones model as stated in the methodology section.
DA	Discretionary accruals	Discretionary accruals were calculated by using modified Jones model as stated in the methodology section.
BD	Board election	A dummy variable for the board reelection. The firm with board reelection is denoted as 1, otherwise 0.
CG	A composite variable of various corporate governance measure.	The composite measure includes board size, independent directors, independent supervisors, CEO and board chair duality, institutional investors' shareholding, foreign institutional investors' shareholding, and the difference between control rights and cash flow rights.
P	Stock price	Stock price per share at the due day of releasing annual financial report, mandated by the article 36 of Taiwan's Security and Exchange Act.
EPS	Earnings per share	Annual reported earnings per share
BV	Book value	Book value per share at the end of the fiscal year
LEV	Leverage	The ratio of total debts to total assets.

SIZE	Size	Natural logarithm of total assets
ROE	Return on equity	Ratio of income before interests and taxes to common stockholder's equity
LOSS	Profitability indicator	A dummy variable for the firms with negative earnings. The firm with negative net income is denoted as 1, otherwise 0
YEAR	Year dummies	Years 2004 thru 2009 are included in the regression models
INDUSTRY	Industry dummies	There are eighteen industries included in the dummies, such as cement, foods, plastics, textiles, electric & machinery, electric, appliance & cable, chemicals, glass & ceramics, steel & iron, rubber, electronics, construction, transportation, tourism, wholesale & retail, etc.

Discretionary accruals are estimated using the modified-Jones model (e.g. Dechow et al., 1995; Martin, 2013). The model used is further modified by cross-sectional industry-specific data input (different companies in the same industry during the same time period). In the first step, total accruals are estimated and these are represented by the difference between net income from continuing operations and operating cash flows:

$$TA_{it} = NI_{it} - OCF_{it}$$

where,

TA_{it} = total accruals for firm i in year t,

NI_{it} = net income from continuing operations for firm i in year t,

OCF_{it} = operating cash flows

The modified Jones model for estimating the parameters of non-discretionary accruals is expressed as follows:

$$\frac{TA_{it}}{A_{it-1}} = \gamma_0 \frac{1}{A_{it-1}} + \gamma_1 \frac{\Delta REV_{it} - \Delta AR_{it}}{A_{it-1}} + \gamma_2 \frac{PPE_{it}}{A_{it-1}} + \varepsilon_{it}$$

where

TA_{it} = total accruals for firm i for year t,

A_{it-1} = total assets for firm i for year t-1,

ΔREV_{it} = change in net revenues for firm i for year t,

ΔAR_{it} = change in accounts receivable for firm i for year t,

PPE_{it} = gross property plant and equipment for firm i for year t,

ε_{it} = error term for firm i for period t.

The non-discretionary accruals (NDA_{it}) are calculated after incorporating the parameters of nondiscretionary accruals as following:

$$NDA_{it} = \hat{\gamma}_0 \frac{1}{A_{it-1}} + \hat{\gamma}_1 \frac{\Delta REV_{it} - \Delta AR_{it}}{A_{it-1}} + \hat{\gamma}_2 \frac{PPE_{it}}{A_{it-1}}$$

As the last step, discretionary accruals (DA_{it}) are calculated by using the parameters estimated in above equation:

$$DA_{it} = \frac{TA_{it}}{A_{it-1}} - NDA_{it}$$

where DA_{it} represents the discretionary accruals for firm i at the event year t.

In this study, we used a number of variables to capture corporate governance based on prior literature. These include board size (Beasley 1996); number of independent directors and supervisors (Peasnell et al. 2005; Klein 2002; Cho and Rui 2009; Core et al., 1999); CEO is the board chair (Chen and Jaggi 2000); number of independent supervisors (Cho and Rui 2009); number of institutional investors (Koh 2003; Bushee 1998); number of foreign institutional investors (Haat et al. 2008); and the difference between control rights and cash flow rights (Claessens et al. 2000; Chin et al. 2009). These variables are measured as follows:

Board size (B_SIZE) is measured as the total number of directors on the board. Independent directors and supervisors (IND) is an indicator variable equaling one if none of the directors and supervisors is an insider of the company and holds more than one percent of the firm's stock and zero otherwise. Duality of CEO (Dual) is an indicator variable equaling one if CEO is not the board chair, zero otherwise. Institutional investors' shareholding (%INST) is the percent of shares held by institutional investors. Foreign institutional investors' shareholding (%FORE) is the percent of shares held by foreign institutional investors. The difference between voting rights and cash flow rights (VC) is computed as the percentage of voting rights minus the percentage of cash flow rights. Higher values for B_SIZE, IND, %INST, %FORE, and lower values for VC represent more effective corporate-governance mechanisms. This is consistent with the belief that insiders will have greater difficulty controlling boards that are larger, more independent, have greater external (i.e., domestic institutional and foreign institutional) ownership as well as more widely distributed voting rights, as measured by a decreasing distance between voting and cash flow rights.

Following Bushman et al. (2004) and Duh et al. (2009), we first sort B_SIZE, %INST, and %FORE in ascending order and VC in descending order before computing percentile values such that each variable can be transformed into a scale between zero and one. We then compute a composite variable by adding up the percentile values of B_SIZE, %INST, %FORE, and VC plus IND and Dual to capture the strength of corporate governance (CG). Hence, a high value of CG is deemed representative of more effective corporate governance mechanisms.

Regression models of board election and corporate governance on the value relevance of earnings and book value

Corporate governance which is perceived to be of better quality may also impact investor perceptions of the quality of a firm's reported earnings and its asset book values. There may, that is, be less suspicion of the firm's earnings and book value reporting in these circumstances. Therefore, it is critical to examine whether board elections will have an impact on the value relevance of earnings, as proxied for by earnings per share or EPS, and book value or BV. We carry out these analyses via Models (5)-(8). Models 5 through 8 are presented as follows:

$$P_{it} = \beta + \beta_1 \text{EPS}_{it} + \beta_2 \text{BV}_{it} + \beta_3 \text{ROE}_{it} + \beta_4 \text{LEV}_{it} + \beta_5 \text{SIZE}_{it} + \beta_6 \text{LOSS}_{it} + \text{Year} + \text{Industry} + \varepsilon_{it} \quad (5)$$

$$P_{it} = \beta + \beta_1 \text{EPS}_{it} + \beta_2 \text{BV}_{it} + \beta_3 (\text{EPS}_{it} \times \text{BD}_{it}) + \beta_4 (\text{BV}_{it} \times \text{BD}_{it}) + \beta_5 \text{ROE}_{it} + \beta_6 \text{LEV}_{it} + \beta_7 \text{SIZE}_{it} + \beta_8 \text{LOSS}_{it} + \text{Year} + \text{Industry} + \varepsilon_{it} \quad (6)$$

$$P_{it} = \beta + \beta_1 \text{EPS}_{it} + \beta_2 \text{BV}_{it} + \beta_3 (\text{EPS}_{it} \times \text{CG}_{it}) + \beta_4 (\text{BV}_{it} \times \text{CG}_{it}) + \beta_5 \text{ROE}_{it} + \beta_6 \text{LEV}_{it} + \beta_7 \text{SIZE}_{it} + \beta_8 \text{LOSS}_{it} + \text{Year} + \text{Industry} + \varepsilon_{it} \quad (7)$$

$$P_{it} = \beta + \beta_1 \text{EPS}_{it} + \beta_2 \text{BV}_{it} + \beta_3 (\text{EPS}_{it} \times \text{BD}_{it}) + \beta_4 (\text{BV}_{it} \times \text{BD}_{it}) + \beta_5 (\text{EPS}_{it} \times \text{CG}_{it}) + \beta_6 (\text{BV}_{it} \times \text{CG}_{it}) + \beta_7 (\text{EPS}_{it} \times \text{CG}_{it} \times \text{BD}_{it}) + \beta_8 (\text{BV}_{it} \times \text{CG}_{it} \times \text{BD}_{it}) + \beta_9 \text{ROE}_{it} + \beta_{10} \text{LEV}_{it} + \beta_{11} \text{SIZE}_{it} + \beta_{12} \text{LOSS}_{it} + \text{Year} + \text{Industry} + \varepsilon_{it} \quad (8)$$

The β_3 and β_4 in Model 6 are used to test whether board elections will affect the value relevance of EPS and BV. If the interaction term coefficient for $\text{EPS} \times \text{BD}$, β_3 , decrease the value relevance of EPS by having a negative coefficient whereas EPS itself had a positive coefficient (β_1) then H3a will be deemed to be supported. Further, if the interaction term coefficient for $\text{BV} \times \text{BD}$, β_4 , has a positive coefficient, and thereby positively contributes to the value relevance of BV, which also has a positive coefficient (β_2), then H3b will be deemed to be supported. In Model 8, the three-way interaction terms of $\text{EPS} \times \text{BD} \times \text{CG}$ (β_7) and $\text{BV} \times \text{BD} \times \text{CG}$ (β_8) are employed to examine whether strong corporate governance can enhance the value relevance of both EPS and BV in presence of board elections. If the coefficients, β_7 and β_8 , for the two named interaction terms are positive, then the fourth hypothesis, H4, will be deemed to have been supported.

This study also includes various variables to control the possible effect on stock price (Fama and French, 1992; Barth, Beaver and Landsman, 1998; Collins, Pincus and Xie, 1999; Burgstahler and Dichev, 1997; Aboody et al., 2004; Becker et al., 1998), including firm size (SIZE), debt level (LEV), return on equity (ROE), and profitability (LOSS). Again, the definitions of all variables utilized above have been included in Table 1.

Sample Selection

Our sample includes Taiwanese publicly-listed firms. The sample years ranged from 2003 to 2013 inclusive. The corporate ownership structure, financial and stock data were collected from the Taiwan Economic Journal (TEJ) database. Our sample firm-years had to meet the following requirements. First, the TEJ database had to contain the required financial data for all necessary variables. And, second, none of the sample firms could be in the finance and banking industry since these are heavily regulated. None of the firms were utilities. Finally, observations accepted into the sample had to have their annual meetings in the period from April 15 through June 30th. These requirements resulted in a final sample of 7456 firm-years for testing stock price relevance of board election on earnings and book value. Because one-year ahead earnings were required for testing earnings persistence in the models (1)-(4), but 2013 reported earnings are not available when current research is conducted. Therefore, 785 observations had to be dropped. The sample for testing earnings persistence equaled 6,671 firm-years. Sample selection process is provided in Table 2.

TABLE 2: SAMPLE SELECTION

All firms with stock prices available from the beginning of January, 2003 to April 30, 2013 (excluding firms in finance and banking industries)	8,140
Less:	
Firms whose shareholding meetings were earlier than April 15 (because the stock price used in our sample was that of April 30).	(136)
Firms whose shareholder meetings were later than June 30	(477)
Firms with data missing	(71)
2003-2013 Value-Relevance observations in firm-years	7,456
Less: 2013 observations for testing earnings persistence	(785)
2003-2012 Earnings Persistence observations in firm-years	<u>6,671</u>

Empirical Results

Descriptive statistics for the dependent and independent variables of the 6,671 firm-years used in testing earnings quality are provided in Table 3.

TABLE 3: THE DESCRIPTIVE STATISTICS OF VARIABLES FOR SAMPLE FIRMS (N=6,671)

Variable	Mean	Median	Std. Dev	Min	Max
EARN	.055	.045	.096	-0.363	0.967
OCF	.075	.071	.129	-1.960	1.271
NDA	-.019	-.026	.069	-1.239	1.565
DA	-.001	-.002	.105	-.909	1.811
BD	.334	.000	.472	0.000	1.000
CG	2.721	2.726	.882	.207	5.503

See Table 1 for variable definitions.

One objective of this study is to examine whether firms with current board elections will have greater earnings persistence given discretionary accruals and other governance mechanisms than do firms whose boards are not being elected in that year. Table 4 presents a test of differences between firms undergoing the mandatory, every third year, board election and firms not undergoing the mandatory, every third year, election required under Article 195 of the Taiwan Company Law.

TABLE 4: MEAN DIFFERENCE BETWEEN FIRMS WITH BOARD ELECTION AND NON-ELECTION

	Election (n=2,229) Mean	Non-election (n=4,442) Mean	Difference	t value	Sign. level
EARN	0.051	0.050	0.001	.570	.569
OCF	0.074	0.076	-0.002	-.611	.541
NDA	-0.018	-0.020	0.001	.620	.535
DA	-0.001	-0.001	0.000	.120	.904
CG	2.714	2.725	-0.011	-.497	.619

See Table 1 for variable definitions.

Table 4 shows that the two groups of firms, with the grouping by whether a board election was taking place or not taking place, did not differ on variables pertinent to the study.

Table 5 demonstrates that during board elections, companies tend to conduct opportunistic earnings management. As a result, the contribution of discretionary accruals to earnings persistence is reduced. The following models, previously presented in the equation (1)-(4), underlie the results in Table 5.

TABLE 5: THE IMPACT ON EARNINGS PERSISTENCE OF ACCRUALS, GOVERNANCE, BOARD ELECTIONS

	Model 1	Model 2	Model 3	Model 4
	Parameter (t-value)	Parameter (t-value)	Parameter (t-value)	Parameter (t-value)
Constant	.026 (5.278)***	.025 (5.009)***	.021 (3.539)***	.021 (3.566)***
OCF	.687 (64.582)***	.687 (64.663)***	.683 (63.223)***	.683 (63.180)***
NDA	.655 (39.140)***	.771 (21.498)***	.653 (38.977)***	.677 (36.101)***
DA	.618 (52.556)***	.616 (52.461)***	.642 (23.826)***	.636 (23.529)***
BD		.002 (.915)		.000 (.148)
DA×BD		-.049 (-3.653)***		-.082 (-2.785)***
CG			.002 (1.995)**	.002 (2.015)**
CG×BD			-.010 (-1.087)	-.013 (-1.335)
DA×BD×CG				.014 (1.980)**
Year	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes
F	165.045***	155.456***	154.972***	142.303***
Adjusted R ²	.425	.426	.425	.426

***, **, and * denote significance at 1%, 5% and 10% level, respectively.

See Table 1 for variable definitions.

Several conclusions can be drawn from Table 5². First, the positive coefficients for OCF, NDA and DA show that all three positively contribute to earnings persistence. Second, In model 2, α_4 , the coefficient of BD, is insignificantly negative. This suggests that board elections have no significant impact on earnings persistence. However, α_5 , the coefficient of the interaction term DA×BD is significantly negative. This shows board elections significantly decrease the contribution of discretionary accruals to earning persistence. In other words, during board elections, earnings management is opportunistic. These results support H1 that in the presence of board election, managers are more likely to engage in opportunistic discretionary accruals that reduce earnings quality. In Model 3, α_4 , the coefficient of the corporate governance variable, is significantly positive. This shows that better corporate governance is able to enhance the earnings persistence of a company. However, the coefficient of DA×CG, α_5 , is insignificantly negative. This finding shows that the quality of corporate governance has no impact on the contribution of discretionary accruals to earnings persistence. In Model 4, the coefficient of DA×CG×BD, α_8 , is significantly positive, and the coefficients of α_4 , α_5 , α_6 , and α_7 align with those in Model 1-3. This finding shows that good corporate governance will alleviate the negative relationship between earnings persistence and the combined effect of board elections and discretionary accruals. In other words, good corporate governance helps to cut down opportunistic earnings management and alleviate the situation wherein board elections decrease the contribution of discretionary accruals to earning quality. Thus, H2 is supported.

Overall, Table 5 demonstrates that during board election years, earnings persistence is negatively related to the occurrence of discretionary accruals itself, and the interaction between director elections and discretionary accruals. However, better corporate governance arrangements moderate the relationship between discretionary accruals and director elections on the one hand, and earnings persistence on the other.

Next, we explore the impact of board elections on the value relevance of earnings and book value. Corporate governance was significantly and positively related to earnings persistence, as shown in Table 5, whereas discretionary accruals were negatively related to earnings persistence. The interpretation of these findings is that better corporate governance leads to higher quality managerial behavior, which helps assure better earnings from year to year. On the other hand, as noted, discretionary accruals are rife for manipulative managerial pursuits and, in a board election year, may lead to higher earnings. In a board non-election year, however, the firm may find itself unable to continue managing earnings via discretionary accruals. Accordingly, earnings should be less persistent. An investor expectation of greater earnings persistence, based on perceived high quality corporate governance, should impact the price at which the investor will buy shares of stock since greater earnings persistence implies a greater likelihood of continued earnings returns. Accordingly, we would expect the earnings measure EPS to interact positively with the corporate governance measure CG, with the result that this interaction term would be positively related to the firm's stock price. Board elections were shown to have no impact on earnings persistence, but did have a negative impact when the interaction of BD and discretionary accruals (DA) was tested. It was only when BD was paired with CG and DA that a positive result was found. This result suggests that CG stands as a surety of sorts that earnings calculated by these firms would persist due to the positive governance affects, as measured here. A follow up question then becomes, if corporate governance helps support earnings persistence, will firms whose EPS and BV are calculated by firms with better corporate governance routines be associated with higher value relevance? These issues are explored in the empirical testing of hypotheses H3a, H3b and H4. The results of those tests are shown in Models 5 through 8.

Descriptive statistics for the variables used in Models 5 through 8 are presented in Table 6. Table 7 presents a t-test comparing the means of firms that had a directors' election with those that did not have a directors' election.

TABLE 6: THE DESCRIPTIVE STATISTICS OF VARIABLES FOR SAMPLE FIRMS (N=7,456)

² In all regressions reported, we conducted multicollinearity diagnostic tests by computing the variance inflation factors (Kennedy, 2000) for all variables used in the regression analyses. None of these factors displayed a value greater than 10, thus indicating a lack of multicollinearity. This held true in all regressions.

Variable	Mean	Median	Std. Dev	Min	Max
P	26.791	15.995	43.221	.570	1054.540
EPS	1.864	1.310	3.617	-52.32	73.32
BV	18.075	15.690	10.759	.071	171.947
BD	.336	.000	.472	0.000	1.000
CG	2.735	2.743	.882	.207	5.503
ROE(%)	6.537	8.110	33.109	-118.261	54.351
LEV(%)	43.370	44.005	17.546	1.275	99.134
SIZE	15.835	15.658	1.352	11.119	21.438
LOSS	.183	.000	.387	0.000	1.000

See Table 1 for variable definitions.

TABLE 7: MEAN DIFFERENCE BETWEEN FIRMS WITH BOARD ELECTION AND NON-ELECTION (N=7,456)

	Election (n=2,504) Mean	Non-election (n=4,952) Mean	Difference	t value
P	26.766	26.803	-.037	-.035
EPS	1.833	1.880	-.047	-.528
BV	18.082	18.071	.011	.041
CG	2.733	2.737	-.004	-.184
ROE (%)	6.342	6.636	-.294	-.362
LEV (%)	43.410	43.350	.060	.138
SIZE	15.845	15.830	.015	.447
LOSS	.187	.182	.005	.501

See Table 1 for variable definitions.

Table 7 shows that there were no significant differences between the groups on the variables of interest. Table 8 presents the regression analyses that test the relationship between the dependent variable, stock price (P) at the due day of releasing annual financial report, mandated by the article 36 of Taiwan's Security and Exchange Act, and the independent variables.

TABLE 8: THE VALUE RELEVANCE OF EARNINGS AND BOOK VALUE, GOVERNANCE AND BOARD ELECTIONS

	Model 5	Model 6	Model 7	Model 8
	Parameter (t-value)	Parameter (t-value)	Parameter (t-value)	Parameter (t-value)
Constant	-3.681 (-.747)	-3.648 (-.742)	-1.287 (-.256)	-1.179 (-.235)
EPS	6.266 (35.251)***	6.795 (34.127)***	3.449 (12.319)***	4.068 (12.601)***

BV	1.274 (22.298)***	1.210 (20.150)***	1.405 (20.383)***	1.343 (18.164)***
EPS×BD		-1.642 (-5.891)**		-1.792 (-3.677)**
BV×BD		.204 (3.857)**		.179 (2.235)**
EPS×CG			3.651 (12.546)***	3.479 (10.009)***
BV×CG			-.257 (-4.746)***	-.250 (-3.873)**
EPS×BD×CG				.360 (.605)**
BV×BD×CG				.004 (.034)**
ROE	-.210 (-15.671)***	-.218 (-16.235)***	-.209 (-15.710)***	-.216 (-16.161)***
LEV	.098 (4.040)***	.095 (3.917)**	.092 (3.850)**	.089 (3.740)**
SIZE	-1.014 (-3.127)***	-.999 (-3.084)**	-1.043 (-3.168)**	-1.034 (-3.146)**
LOSS	20.141 (18.271)***	19.876 (18.055)***	15.992 (14.118)***	15.803 (13.971)***
year				
industry				
F	205.262***	195.699***	203.564***	184.685***
Adjusted R ²	.482	.485	.494	.496

***, **, and * denote significance at 1%, 5% and 10% level, respectively.
See Table 1 for variable definitions.

The results in Table 8 show that, first, β_1 and β_2 , the coefficients of variable EPS and BV are both positive in all four models, thus indicating that EPS and BV are both positively related to share prices. Second, the coefficients of the interaction term in Model 6 show that board elections will decrease the value relevance of EPS ($\beta_3 < 0$) and increase that of BV ($\beta_4 > 0$). This indicates that in the presence of board elections, when valuing a stock, investors seem to decrease their reliance on earnings information and rely more on book value. This makes sense given that, on a percentage basis, an increase (decrease) in DA will have a heavier percentage increase (decrease) on EPS than on BV, given that EPS represents a flow concept, while BV largely represents a stock concept whose value fluctuates less from year to year in both absolute and percentage terms than does EPS due to discretionary accruals. These findings support both H3a and H3b.

Third, Model 7 shows the impact of corporate governance on value relevance of EPS and BV. The interaction of EPS and CG (β_3) and the interaction of EPS and BV (β_4) show that when valuing a stock, investors will increase their reliance on earnings information, which increases the value relevance of EPS, if good corporate governance is in place, and relatively reduced reliance of investors on equity information. As Table 5 demonstrated earlier, the board election decreases the contribution of discretionary accruals to earnings quality and good corporate governance alleviates opportunistic earnings management.

In Model 8, we also find that the interaction of EPS and BD (β_3) is significantly negative at the one percent level, while the interaction of BV and BD (β_4) is positive at the one percent significance level. Thus, in the presence of board elections, the value relevance of EPS declines, but the value relevance of BV increases, consistent with earlier finding in Model 6. However, the three-way interaction terms of EPS×BD×CG (β_7) is positive and BV×BD×CG (β_8) was negative, but both of them are statistically insignificant. Therefore, better corporate governance may still enhance

the value relevance of EPS, but does not significantly increase too much the reliance of investors on financial accounting information for firms in which director elections were held. This finding does not fully support H4.

Conclusion

This study explores (a) the impact of discretionary accruals, given the potential moderating effect of board elections (BD) and corporate governance (CG), on earnings quality and (b) the value relevance of earnings (i.e. EPS) and book value (BV) on the firms' stock prices, given the potential moderating effects of director elections and corporate governance. We find that the use of discretionary accrual activity in the presence of directorship elections leads to reduced earnings persistence, thus indicating that the discretionary accruals used represent poorer quality additions to earnings. Given that the presence of better corporate governance regimes reverses this effect, it seems that the discretionary accruals signaled better quality earnings in the presence of better corporate governance regimes. Accordingly, managements should realize that better corporate governance arrangements provide stockholders with greater assurance as to the quality of earnings.

We also found that the value relevance of both EPS and BV are positive when their values are tested against stock prices. This should be expected. A more interesting finding is that we found a negative relationship between the interaction term for BD and EPS on the one hand and stock prices on the other. This indicates that directorial elections reduce the value relevance of EPS. Once, however, we created the three-way interaction term, including CG, EPS and BD, the result turned positive, if insignificantly so. Consistent with our earlier results, these results argue for the importance of good corporate governance in *perhaps* helping assure the credibility of accounting numbers. Further, we found that BV as a separate variable in the value relevance regression is very strongly and positively related to stock price. As noted, the interaction of BD and BV was also positively related to stock prices. Since BV is more of a stock than a flow concept than EPS, BV carries over value from not only the two previous years, years in which directorial elections were not held, but also value from the beginning of the firm itself. It is less surprising, therefore, that the interaction term for $BV \times BD$ was positive while the interaction term of $EPS \times BD$ was negative. For investors, the implication of these findings are that BV is a better guide to corporate value than EPS in situations where corporate governance is of questionable quality given the presence of board elections. For investors, an implication of these findings is that BV is a better guide to corporate value than EPS in situations where corporate governance is of questionable quality. For managers, a clear implication is that attempts to manipulate earnings are of doubtful utility without taking the perceived strength of corporate governance into account. Improving corporate governance enough, of course, may obviate the ability of management to engage in such manipulations at all.

The results presented here indicate the importance of better corporate governance in diffusing suspicions of management occasioned by the use of discretionary accruals in years in which board elections take place. Better corporate governance regimes led to a more positive relationship of discretionary accruals to earnings persistence, even in the presence of directorial elections. Similarly, better corporate governance regimes led to a more positive relationship between EPS and stock prices.

In order to obtain these results, we used Taiwanese data since the Article 195 of Taiwan's Company Law requires triennial board of director elections, and staggered voting is not allowed. This restriction of testing locale is a limitation of this research. Certainly, this research could not have been taken using many US companies since the use of staggered elections of board of directors' members is typical. It may be argued, therefore, that our results reflect the relationship between the variables tested as found within a particular locale. Taiwan is heavily integrated into the global economy, however, with Taiwanese firms having—and being exposed to—business and corporate governance practices across the globe. Nevertheless, in the wake of the corporate scandals that have rocked the globe since the fall of Enron and Worldcom in 2001, we believe it is important to examine whether the relationships found here also exist in other nations.

References

- [1] Aboody, D., M. E. Barth, R. Kasznik 2004. SFAS No.123 stock-based compensation expense and equity market value. *The Accounting Review*, 79 (April), pp.251-275.
- [2] Agrawal, A., and C. Knoeber. 1996. Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis*, 31(3), pp. 377-397.
- [3] Bae, K. and S. W. Jeong. 2007. The value-relevance of Earnings and Book Value, Ownership Structure, and Business Group Affiliation: Evidence from Korean Business Groups. *Journal of Business, Finance, and Accounting*, 34(5-6), pp. 740-766.
- [4] Barth, Mary E., William H. Beaver, and Wayne R. Landsman. 1998. Relative valuation roles of equity book value and net income as a function of financial health, *Journal of Accounting & Economics*, 25(1), pp.1-34.
- [5] Beasley, M. 1996. An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review*, 71(4), pp. 443-465.
- [6] Becker, C. L., M. L. Defond, J. Jiambalvo, K. R. Subramanyam. 1998. The effect of audit quality on earnings management. *Contemporary Accounting Research*, 15(1), pp.1-24.
- [7] Burgstahler, D. C. and D. Ilia. 1997. Earnings, adaptation and equity value, *The Accounting Review*, 72(2), pp. 187-215.
- [8] Bushee, B. J. 1998. The influence of institutional investors on myopic R&D investment behavior. *The Accounting Review*, 73(3), pp. 305-333.
- [9] Bushman, R., Q. Chen, E. Engel, and A. Smith. 2004. Financial accounting information, organizational complexity and corporate governance systems. *Journal of Accounting and Economics*, 37(June), pp. 167-201.
- [10] Chen, C. J. P. and B. Jaggi. 2000. Association between independent non-executive directors, family control and financial disclosures in Hong Kong. *Journal of Accounting and Public Policy*, Vol. 19 (4): 285-310.
- [11] Chin, C-L., G. Kleinman, P. Lee & M. Lin. 2006. Corporate Ownership Structure and Accuracy and Bias of Mandatory Earnings Forecast: Evidence from Taiwan. *Journal of International Accounting Research*. Volume 5(2): 41-62.
- [12] Chin, C-L., Y. J. Chen, G. Kleinman, and P. Lee. 2009. Corporate Ownership Structure and Innovation: Evidence from Taiwan's Electronics Industry. *Journal of Accounting, Auditing and Finance*, 24 (1), pp: 145-175.
- [13] Cho, S. and O. M. Rui. 2009. Exploring the Effects of China's Two-tier Board System and Ownership Structure on Firm Performance and Earnings Informativeness. *Asia-Pacific Journal of Accounting & Economics*, 16(1): 95-118.
- [14] Claessens, S., S. Djankov, and L. H. P. Lang. 2000. The separation of ownership and control in East Asian Corporations. *Journal of Financial Economics*, 58, pp. 81-112.
- [15] Collins, D. W. and L. DeAngelo. 1990. Accounting information and corporate governance: market and analyst reactions to earnings of firms engaged in proxy contests. *Journal of Accounting and Economics*, Vol. 13 (3), pp. 213-247.
- [16] Collins, M. P., and H. Xie. 1999. Equity valuation and negative earnings: the role of book value of equity. *The Accounting Review*, 74(1), pp.29-61.
- [17] Core, J. E., R. W. Holthausen, and D. F. Larcker, 1999. Corporate governance, chief executive officer compensation and firm performance. *Journal of Financial Economics*, 51(3), pp. 371-406.
- [18] DeAngelo, L. E. 1988. Managerial competition, information costs, and corporate governance: The use of accounting performance measures in proxy contests. *Journal of Accounting and Economics*, Vol. 10 (1), pp. 3-36.
- [19] Dechow, P., R. Sloan, and A. Sweeney. 1995. Detecting Earnings Management. *The Accounting Review*, Vol. 70 (April), pp. 193-225.
- [20] DeGeorge, F., J. Patel, and R. Zeckhauser. 1999. Earnings management to exceed thresholds. *Journal of Business* Vol. 72(1), pp. 1-33.
- [21] Duh, R., W. Lee and C. Lin. 2009. Reversing an impairment loss and earnings management: The role of corporate governance, *The International Journal of Accounting*, 44(2), pp. 113-137.
- [22] Fama, E. F. and K. R. French. 1992. The Cross-Section of Expected Stock Returns. *Journal of Finance*, Vol. 47, No. 2, pp.427-465.

- [23] Fischer, P., J. Gramlich, B. P. Miller, and H. White (2009), "Investor Perceptions of Board Performance: Evidence from Uncontested Director Elections," *Journal of Accounting and Economics*, Vol. 48, No. 2-3, pp. 172-189.
- [24] Haat, M., R. Rahman, and S. Mahenthiran. 2008. Corporate governance, transparency and performance of Malaysian companies. *Managerial Auditing Journal*, 23(8), pp. 744-778.
- [25] Hail, L. 2013. Financial reporting and firm valuation: relevance lost or relevance regained? *Accounting and Business Research*, 43 (4), pp. 329-358.
- [26] International Accounting Standards Board. (IASB). 2013 (as amended). International Accounting Standard 1. *Presentation of Financial Statements*. London, UK.
- [27] Jensen, M. C. and W. H. Meckling. 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* Vol. 3(4), pp. 305-336.
- [28] Kennedy, P., 2000. *A Guide to Econometrics*. Blackwell publisher, 4th edition.
- [29] Klein, A. 2002. Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3), pp. 375-400.
- [30] Koh, P. S. 2003. On the association between institutional ownership and aggressive corporate earnings management in Australia, *The British Accounting Review*, 35(2), pp. 105-128.
- [31] Lins, K. V. 2003. Equity ownership and firm value in emerging markets. *Journal of Financial and Quantitative Analysis*, 38(1), pp. 159-184.
- [32] Marquardt, C. A. and C. I. Wiedman. 2004. The Effect of Earnings Management on the Value Relevance of Accounting Information. *Journal of Business, Finance and Accounting*, 31 (3-4), pp. 297-332.
- [33] Hu, N., B. Qi, G. Tian, L. Yao, Z. Zeng. 2013. The impact of ineffective internal control on the value relevance of accounting information, *Asia-Pacific Journal of Accounting & Economics*, 20(3) , pp. 334-347.
- [34] Ohlson, James A. 1995. Earnings, Book Values and Dividends in Security Valuation, *Contemporary Accounting Research*, 11(2), pp. 661-687.
- [35] Peasnell, K. V., P. Pope, and S. Young. 2005. Board monitoring and earnings management: Do outside directors influence abnormal accruals? *Journal of Business Finance and Accounting*, 32(7/8), pp. 1311-1346.
- [36] Sloan, R. G. 1996. Do stock prices fully reflect information in accruals and cash flows about future earnings? *The Accounting Review*, 71(3), pp. 289-315.
- [37] Walker, M. 2013. How far can we trust earnings numbers? What research tells us about earnings management, *Accounting and Business Research*, 43(4), pp. 445-481.
- [38] Watts, R. and J. Zimmerman. 1986. *Positive Accounting Theory*. Englewood Cliffs, New Jersey: Prentice Hall, 1986.
- [39] Xie, H. 2001. The mispricing of abnormal accruals. *The Accounting Review*, 76 (3), pp.357-373.
- [40] Yeh, Y., T. S. Lee, and T. Woidtke. 2001. Family control and corporate governance: Evidence from Taiwan. *International Review of Finance*, 2(1/2), pp. 21-48.

End Note

**Similarities and differences in the capital structure of the transformation industry
and commerce in Mexico**

Juan Gaytán-Cortés, jgaytan@cucea.udg.mx
Juan Antonio Vargas-Barraza, mniudg@gmail.com
Antonio de Jesús-Vizcaino, asesorvizcaino@yahoo.com.mx
University of Guadalajara, Mexico

Similarities and differences in the capital structure of the transformation industry and commerce in Mexico

Abstract

The purpose of this research was to determine the mathematical relation between, the financial country factors and the financial enterprise factors incorporating debt in the enterprise capital structure, used for the transformation and commerce companies sectors that quoted on the Mexican Stock Exchange in 2000-2011 periods.

The long term debt was the dependent variable and through the E-views 7.0 program, the panel data technique was applied in order to determine the mathematical relation between the independent factors.

The mathematical model and the factors for this empirical study were identified and used in the research as discussion into the theoretical framework

Keywords: Capital structure, Factors of the company, Factors of the country

Introduction

The research, is motivated because of the absence of policies, rules or models into the real life of the enterprises to generate their own capital structure, implying the reviewing of theories, the empirical studies, the existing hypotheses, the major postulates, to determine their its mathematical relationship between debt and the capital structure. Thus, we established a solid foundation to the problem, the questioning and the established objectives. The studies of the capital structure in Mexico are fundamental, because the lack of a robust model to explain the financial decisions in the Mexican organizations, particularly in the transformation and commerce companies sectors, justify this research.

Theoretical framework

The existence or not of an optimal capital structure for the companies, as well the way it should be determined, has been one of the most controversial topics of financial literature since Modigliani and Miller (1958), published their article and showed their propositions of the irrelevance of the capital structure to the value of the enterprise. It has been 56 years since the publication of the seminal work that gave origin to corporate finances as we know nowadays and at the same time caused that capital structures studies caught so much attention from the economy and financial areas. However, the broad research done on the capital structure theory, to this day, is no conclusive in answers. The theoretical models developed during the last years, have tried since to validate and generalize sometimes, the thesis of the irrelevance of Modigliani and Miller (1958); other times, the models have been tried to adjust the thesis of maximum indebtedness of Modigliani and Miller (1963). From the convergence of both lines of research on the decade of the 60's emerged a renovated theory of the capital structure postulating the existence of an optimal structure to the proposed problem. In this research were reviewed the following theories: optimal capital structure, Theory of the Fiscal Tax Base, Theory of the Asymmetric Information, The Theory of the Agency Costs, The Free Cash Flow Theory, The *Pecking Order Theory* (POT); This last theory was formally proposed by Myers (1984), based in the preliminary work of Donaldson. (1961).

The empirical studies that support all the above mentioned theories, were also reviewed, highlighting among others, the studies done by Rajan and Zingales (1995), and the study of Wald (1999), these studies offered empirical evidence for G-7 countries. They were analyzed some institutional factors of the company, such as: The total assets (size of the firm), profit, sales (growth rate), and the capital (risk).

In the empirical studies, as well as the financial theories, the knowledge has increased and evolved; however, in the different researches done hasn't been achieved the construction of a model that includes jointly all the factors considered capital structure determinants, among the published investigations, we can mention the ones made Filbeck and Gorman (2000), Bradley, Chung (1993), Van el Der (1989), Kester (1986), Harrel and Kim (1984).

The empirical evidence suggests that besides the specific factors of the company also the macroeconomic factors or institutionals of each country are important of the capital structure (Booth L., Aivazian, V., Demirguc-Kunt, A. and Maksimovic, V. (2001), Antoniou, Guney, and Paudyal (2008), Gaytan and Bonales (2009), Dias, Thosiro and Cruz, (2009), Dias and Toshiro (2009). Nevertheless, the most part of the theoretical debate and empirical about the incorporation of the debt in the capital structure, has stayed conditioned by well-developed the capital markets and with a financial architecture well structured, Singales (2000).

Arias, M., Arias, L., Pelayo and Cobián (2009), argued that is necessary to do an specialized research about this matter in the Mexican companies with the purpose of achieving a better understanding about their contracting and debt decisions, in order to design financial instruments adequate to their financial needs and to facilitate and support their growth.

The capital structure and the macroeconomic or institutional factors of the country

The recent empirical evidence suggests that the specific factors of every country are important aspects in forming the capital structure in the company of emerging markets, (Booth, Aivazian, Demirguc-Kunt and Maksimovic, (2001); Antoniou, Guney and Paudyal, (2008); Gaytan y Bonales (2009); Dias, Thosiro and Cruz, (2009); Dias y Toshiro (2009). Suggest that the specific factors in the explanation of decisions of contracting debt of the company are related to the economic environment and institutional mechanisms of each country, as the financial sector, the tax system, the legal system and the accounting practices.

In the studies done about the main factors of the country, considered as determinants in building the capital structure of the companies, has been found that they have a significant impact, among others the following factors: i) The Fiscal tax rate), ii) la inflation, iii) the interest rate and iv) the exchange rate. For that reason of the investigation of the commercial sector the four macroeconomic and institutional factors were considered.

Capital structure and the microeconomic factors of the company

It has been looked for to identify the specific factors of the company that could be relevant aspects forming their capital structure, with the purpose of proving the validity of the theories supporting them. Among the factors of the company that can act as significant in forming the capital structure, in the empirical studies done by Dias, Toshiro and Cruz. Gaytán and Bonales (2009), Dias and Toshiro (2009), it has been found a significant evidence incorporating debt in the capital structure, in the following factors: i) Total assets, ii) operation profit iii) capital, and iv) net sales. For that reason the 4 factors were also considered.

Hypothesis

The fiscal tax rate, the interest rate, the operation profit, the exchange rate and the capital are factors that are negatively related; on the contrary the inflation, the total assets and the net sales are factors that are positively related, incorporating debt in the capital structure used by the companies of the transformation and commerce sectors in Mexico.

Methodology

The econometric model of the panel data was chosen and used to calculate the mathematical relationship of the factors, the sample of the factors was used for the period from 2000 to 2011, the technique of this model combines data of temporary dimension and cross-section cut. The model is also known as longitudinal joint, gathered data, times series and cross-section, micro-panel data, history analysis and peer analysis. (Gujarati, 2003).

The technique of the panel data can develop and test complex models, According to Carrascal is applicable to the following areas a) Sales prediction, b) Cost studies, c) Financial analysis, d) Macroeconomic prediction, e) Simulation, f) Analysis and evaluation of any type of statistical data. Also allows to observe the causal inferences of the independent and dependent factors, these inferences of causality would be difficult to understand if only applied in isolation technique of "cross-sectional data" or the technique of "time series data". The analysis of panel data,

simultaneously gathers the study of the cross-section cut and the times series studies capture the heterogeneity and the economic agents incorporating the dynamic analysis. (Rivera, 2007)(Mayorga & Muñoz, 2000).

The fundamental characteristic of the panel data is the fact of monitoring the same companies in a continuous period of time. (Wooldridge, 2001).

The analysis of the panel data studies the data set, putting together the cross section cut and the time series. The available information is processed and presented in two dimensions, generating multiple observations for each economic unit, enriching the empirical analysis. (Rivera, 2007), (Mayorga and Muñoz 2000), (Gujarati, 2003), (Mur and Angulo, 2006), (Rivera, 2007).

The model recognizes two effects, on one hand the effects that are unequally affected to each of the study agents contained in the sample, on the other hand, the temporary effects that equally affect all individual units of study that do not vary over time, allowing to study changes in the benefits of a single company over a period of time and the variety of benefits of several companies. (Pindyck, 2001).

Source and data collection

The specific variables of the companies were obtained from the financial statements published in the financial yearbook of the Mexican Stock Exchange, the source is very reliable, according to the specific laws, the companies listed on the Stock Exchange have the obligation to generate reports at the end of each quarter (Schneider, 2001). The macroeconomic data were obtained by databases and publications made by the Bank of Mexico.

The study sample was not probabilistic, because all the companies from the transformation and commerce sector that were listed in 2000-2011 periods were considered. According to the stratification of the Official Journal of the Federation of Mexico, published in June 2009, for its size, all are classified as large companies.

This research considered the dependent variable: The Long-Term Liabilities. We also considered eight independent variables, of which four are company-specific variables: Total Assets, Net Sales, Operating Income and Capital, and the other four are the country's macroeconomic variables: Tax Rate (ISR), Interest Rate, Inflation and Exchange rate.

Analysis and interpretation of results

After applying the multivariate technique of panel data, that involved the dependent and independent variables, the economic model showed the existence of a high correlation between the independent variables, causing multicollinearity. Is, some independent variables showed a significance greater than 5%. So the null hypothesis was not rejected. The null hypothesis for each complementary hypothesis was defined as: $H_0: B_i = 0$, where i is the independent variable to the level of significance of 5%.

Stepwise Method. The application of the method allowed us identifies the variables that improve the levels of adjustment and models explanation. The redefined model to commerce sector only included the following independent variables: Total Assets, Operating Income, Interest Rate and Inflation. The redefined model to transformation sector only included the following independent variables: Sales, Capital, Income Tax.

Test (VIF). The inflation factor of the variables variance must be less than 10. The (VIF) result showed 12.05, being outside the range.

The test was repeated, considering only the variables of the redefined models after applying the stepwise method. The result showed a decrease in the average variance inflation factor to 3.14, for the commerce sector and 3.38 for the transformation sector which are within the acceptable range test. (Table 1).

TABLE 1

Commerce Sector (VIF) With significant variables			Transformation Sector (VIF) With significant variables		
Variable	VIF	1/VIF	Variable	VIF	1/VIF

Total Assets	4.36	0.229298			
Operating Income	4.24	0.235796	Sales	4.57	0.218794
Interest Rate	2.01	0.497772	Capital	4,52	0.221061
Inflation	1.93	0.517326	Income Tax	1.05	0.952139
Mean VIF	3.14		Mean VIF	3.38	

Source: Own elaboration, based on financial data of the Mexican Stock Exchange 2000-2011

Hausman Test. A regression of panel data with random effects with the purpose of generating the needed information to apply the Hausman Test. The result of the Hausman test used in this research is the multivariate technique of panel data (fixed effects).

The multivariate technique of panel data. The final results for the commerce sector and transformation sector after adjusting and applying the econometric model through the panel technique, are shown in tables No. 2 and No.3.

TABLE 2: FINAL RESULTS OF COMMERCE SECTOR, AFTER APPLYING THE DATA PANEL TECHNIQUE, USING THE E-VIEWS 7.0 PROGRAM

Dependent Variable: Long-Term Liabilities				
Method: Pooled EGLS (Cross-section weights)				
Date: 02/06/14 Time: 13:44				
Sample: 2000 2011				
Included observations: 12				
Cross-sections included: 15				
Total pool (balanced) observations: 180				
Linear estimation after one-step weighting matrix				
White cross-section standard errors & covariance (d.f. corrected)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	314985.0	272477.8	1.156003	0.2494
TOTAL ASSESTS	0.157299	0.016871	9.323756	0.0000
OPERATING INCOME.	-0.252990	0.091978	-2.750544	0.0066
INTEREST RATE	-5285144.	2399800.	-2.202327	0.0291
INFLATION	11248057	5429215.	2.071765	0.0399
Fixed Effects (Cross)				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.930496	Mean dependent var		5443466.
Adjusted R-squared	0.922725	S.D. dependent var		5805642.
S.E. of regression	1934190.	Sum squared resid		6.02E+14
F-statistic	119.7446	Durbin-Watson stat		1.088966
Prob(F-statistic)	0.000000			

Source: Own elaboration base on financial data of the Mexican Stock Exchange 2000-2011

The multivariate regression of panel data (fixed effects), shows that the parity and the equity have a negative correlation and the total assets have a positive correlation incorporating the long term liabilities; the model shows an explanatory capacity of 0.9227.

TABLE 3: FINAL RESULTS OF TRANSFORMATION SECTOR, AFTER APPLYING THE DATA PANEL TECHNIQUE, USING THE E-VIEWS 7.0 PROGRAM

Dependent Variable: PASIVO?				
Method: Pooled EGLS (Cross-section weights)				
Date: 06/02/14 Time: 08:25				
Sample: 2000 2011				
Included observations: 12				
Cross-sections included: 15				
Total pool (balanced) observations: 180				
Linear estimation after one-step weighting matrix				
White cross-section standard errors & covariance (d.f. corrected)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-782542.0	1087551.	-0.719545	0.4728
SALES?	0.801076	0.062063	12.90755	0.0000
INCOME TAX?	7971954.	1157863.	6.885055	0.0000
CAPITAL?	-0.637534	0.085102	-7.491423	0.0000
Fixed Effects (Cross)				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.949560	Mean dependent var	11425987	
Adjusted R-squared	0.944267	S.D. dependent var	11793290	
S.E. of regression	3595107.	Sum squared resid	2.09E+15	
F-statistic	179.3977	Durbin-Watson stat	0.839599	
Prob(F-statistic)	0.000000			

Source: Own elaboration base on financial data of the Mexican Stock Exchange 2000-2011

The multivariate regression of panel data (fixed effects), shows that the sales and the income tax have a positive correlation and the capital have a negative correlation incorporating the long term liabilities; the model shows an explanatory capacity of 0.9442.

TABLE 4: FACTORS THAT HAVE MATHEMATICAL RELATION, INCORPORATING DEBT IN THE CAPITAL STRUCTURE OF THE COMMERCE SECTOR COMPANIES

CONCEPT	TOTAL ASSETS (+)	PROFIT (-)	INTEREST RATE (-)	INFLATION (-)
SIGNIFICANCE	***	**	**	**

Source: Own elaboration with the results of the STATA-11 program, (table 2)

Total Assets. In the commercial sector, we obtained a positive mathematical relationship of total assets with long-term liabilities. The total assets seem to be the most important factor in financing, especially for long-term debt, (Vigrén, 2009). This result agrees with the results shown in the classic article on this issue at the international level of Rajan and Zingales (1995), who researched the fundamental aspects of the capital structure of the company for the (G-7) countries during the period 1987-1991, finding that the total asset is a factor to incorporate debt, arguing that large companies tend to have a higher level of indebtedness. Other researchers like Frank and Goyal (2009), as well as Dias, Toshiro and Cruz. (2009) and Dias and Toshiro (2009), who obtained evidence in Latin American companies, including Mexican, agree with Rajan and Zingales.

The Profit. In the commercial sector, the result shows that operating income as a factor in the inclusion of debt, to form the capital structure has a negative relationship, this result agrees with those obtained by (Jordan, Lowe and Taylor, 1998), (Philosophov and Philosophov 1999), who found, the profit is negatively related to the debt.

Risk Free Interest Rate. In the commercial sector, the result shows that Risk free interest rate is negatively related with the incorporation of liability (debt or leverage), matching the results of studies conducted by Barry , Mann, Mihov, and Rodriguez (2008), who found that firms issue more debt when interest rates are lower than historical levels.

Inflation In the commercial sector, the result shows that inflation has a positive mathematical relationship with the incorporation of liability (debt or leverage), this result coincides with the result obtained by Gaytan and Bonales (2009), the study of multinational companies belonging to the electronics industry, established in the state of Jalisco, Mexico, they also found that the inflation rate has a positive relationship to incorporate debt in capital structure.

TABLE 5: FACTORS THAT HAVE MATHEMATICAL RELATION, INCORPORATING DEBT IN THE CAPITAL STRUCTURE OF THE TRANSFORMATION SECTOR

CONCEPTO	SALES (+)	INCOME TAX (-)	CAPITAL (-)
SIGNIFICANCE	***	***	***

Source: Own elaboration with the results of the E-Views 7.0 program, (Table No.3)

Capital. The application of the statistic proves the affirmation that the formulated hypothesis holds, the countable capital is related in a negative way in the decisions that incorporate the debt of the transformation companies. Those results, agree with Mason’s job (1990), Friendly Lang (1988), the important founds that they got from the United States, match with the obtained results in this empiric study, showing negative meaning related to the passive long term.

Income tax. Statistical results, indicates that Income Tax Rate is positively, confirming that tax advantage of the total financing cost through borrowing has been exploited by companies transformation sector. The results confirm that the traditional approach to the tax advantage or trade-off between equity and borrowed funds, suggesting an optimal or equilibrium relationship between them, has lost ground to other theories as he states in his research (Myers 1984).

Sales. Transformation industry has a positive mathematical relationship that this study determine yet. It coinciding with the results obtained Hall, Hutchinson, and Michaelas (2000), who studied 3,500 small and medium enterprises (SMEs) in the UK unlisted Stocks, and using the percentage increase in sales volume growth as an indicator variable, found that the level of short-term debt is positively related to growth of the company. It also coincides with the results of other authors such as Rajan and Zingales (1995) and Myers (1977).

Conclusions

The research reached its purpose to identify the positive or negative relationship of the quantitative factors between the debt and the capital structure into transformation and commercial companies sectors and they are participating in the period 2000 to 2011 Mexican stock market. The model of the transformation companies was proved with the statistical technique of "panel data", and was adjusted means of the dependent variable: The Long-Term Liabilities and as independent variables: Sales, Capital and Income Tax.

The model of the commerce companies was proved with the statistical technique of "panel data", and was adjusted means of the dependent variable: The Long-Term Liabilities and as independent variables: Total Assets, Operating Income, Interest Rate and Inflation.

The results are useful for generating standards and guidelines, facilitating decision-making by incorporating debt in the capital structure of companies in the transformation and commercial sector in Mexico. The results will decrease uncertainty and support decisions in tangible and intangible assets of investment projects done by companies in the transformation and commercial sector.

Factors emanating from the qualitative characteristics such as culture, power, country risk, and personal values, are aspects that can influence and change the results, which is why we suggest to be included in future research.

References

- [1] Antoniou, A., Guney, Y., y Paudyal, K. (2008). The Determinants of Capital Structure: Capital Market-Oriented versus Bank-Oriented Institutions. *Journal of Financial and Quantitative Analysis*, 43(1), 59-92.
- [2] Arias, M., Arias, L., Pelayo, M., Cobián, S. (2009). Factores Institucionales que Influyen en la Decisión de Estructura de Capital de las Empresas en México. *Expresión Económica*, (22), 49-63.
- [3] Booth, L., Aivazian, V., Demirguc-Kunt, A. and Maksimovic, V. (2001). Capital Structures in Developing Countries. *Journal of Finance*, 56(1), 87-130.
- [4] Bradley, M., Gregg, A., Jarrell, E., y Kim, E. H. (1984). On the Existence of an Optimal Capital Structure: Theory and Evidence. *Journal of Finance*, 39(3), 887-878.
- [5] Censos Económicos (2009). Resultados Oportunos. *Instituto Nacional de Estadística y Geografía (INEGI)*. Recuperado de www.inegi.org.mx.
- [6] Cobacho, M. B. y Bosch, M. (2004). Métodos lineales de estimación con datos de panel: una aplicación al estudio de los efectos de la inversión pública federal en México. XII Jornadas de ASEPUMA
- [7] Dias, D., Thosiro, W., Cruz, L. (2009). Determinants of Capital Structure of Publicly-Traded Companies in Latin America: the Role of Institutional and Macroeconomic Factors. *Journal of International Finance and Economics*, 9(3), 24-39.
- [8] Dias, D. y Toshiro, W. (2009). Determinantes da Estrutura de Capital das Companhias Abertas no Brasil, México e Chile no período 2001-2006. *Revista Contabilidade & Finanças*, 20(50), 75-94.
- [9] Filbeck, G. Raymond F. Gorman, R. F. (2000). "Capital Structure and Asset Utilization: The Case of Resource Intensive Industries". *Review of Economics and Finance*, 26 (4), 211-228.
- [10] Frank, M. y Goyal, V. (2000). Testing the Pecking Order Theory of Capital Structure. Mimeo, *Social Science Research Network (SSRN)*.
- [11] Frank, M. y Goyal, V. (2009). Capital Structure Decisions: Which Factors Reliably Important?. *Financial Management, Spring*, 1-37.
- [12] Gaytán, J. y Bonales, J. (2009). *La Estructura de Capital En Filiales de Empresas Multinacionales de la Electrónica en Jalisco, Bajo Condiciones de Incertidumbre*. México: Universidad de Guadalajara.
- [13] Hall, G., Hutchinson, P., y Michaelas, N. (2000). Industry Effects on the Determinants of Unquoted SMEs' Capital Structure. *International Journal of the Economics of Business*, 7(3), 297-312.
- [14] Mayorga, M. y Muñoz, E. (2000). La técnica de datos de panel una guía para su uso e interpretación. Banco Central de Costa Rica. Departamento de investigaciones económicas
- [15] Modigliani, F. y Miller, M. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Review*, 68(3), 261-297.
- [16] Mur, J. and Angulo A.M. (2006). The Spatial Durbin Model and the Common Factor Tests. *Spatial Economic Analysis*, 1(2), 207-226.
- [17] Organización Mundial de Comercio (OMC). (2009). Informe del comportamiento del sector de servicios en el mundo. Recuperado de <http://www.mincomercio.gov.co/econtent/newsdetail.asp?id=5393&idcompany=1>
- [18] Ozkan, A. (2001). Determinants of Capital Structure and Adjustment to Long Run Target: Evidence from UK Company Panel Data. *Journal of Business Finance & Accounting*, 28(1/2), 175-198.
- [19] PEA (INEGI, 2001), Comportamiento del sector de servicios en México. Recuperado de <http://www.inegi.org.mx/inegi/contenidos/espanol/prensa/comunicados/servbol.asp>
- [20] Pindyck, R. y Rubinfeld, D. (2001). *Econometría: Modelos y Pronósticos*. México: MC-Graw Hill, 4ta edición.
- [21] Rivera, J. (2007). Estructura Financiera y Factores Determinantes de la Estructura de Capital de las PYMES del Sector de Confecciones del Valle de Cuenca en el Período 2000-2004. *Cuadernos de Administración Bogotá (Colombia)*, 20(34), 191-219.
- [22] Schneider, F. (2001). Determinantes del apalancamiento: los efectos del TLCAN sobre la estructura financiera de las empresas de la BMV. *Gaceta de Economía*, 6(11), 99-147
- [23] Sogorb, F. (2002). *Estudio de los Determinantes de la Estructura de Capital de las Pymes: Aproximación Empírica al Caso Español*. España: Tesis Doctoral, publicada en la Universidad de Alicante.

- [24] Vigrén, A. (2009). *Capital Structure of Finnish SMEs and Financial Constraints*. Lappeenranta: Master's Thesis, School of Business.
- [25] Wooldridge, J. (2001). *Introducción a la Econometría: un Enfoque Moderno*. México: Internacional Thomson Editores.
- [26] Zingales, L. (2000). In Search of New Foundations. *Journal of Finance*, 55(4), 1623-1653.

Economic tools induced by real estate development process in Visegrad Countries

Julius Golej, julius.golej@stuba.sk

Institute of Management, Slovak University of Technology in Bratislava, Slovakia

Abstract

Economic tools induced by real estate development process are principally additional fees from development projects realized in particular land. These charges reflect the inducing costs that are directly associated with the development process and exceeds the scope of realized projects. This issue is related particularly the distribution of costs and benefits from development activities. This paper is focused on economic instruments in real estate development process in selected Visegrad countries of Central and Eastern European region – Slovakia, Czech Republic, Hungary and Poland.

Land plays a key role in development projects. Conversely, land use plans and development process significantly affect the monetary value of land. Price and value of the land is differently perceived by developer or investor and otherwise is perceived by the landowner. With increasing value of land, owners can through higher prices for their subsequent divestiture anticipate their further increases. If the land owner does not take any capital appreciation on their property, the profit from the resale of property may be regarded as purely speculative profit. Such activity of owners should be at least partially controlled by the public sector in order to prevent unhealthy influencing of the land market.

Key words: real estate development, Visegrad countries, development fees, induced costs.

Introduction

The main objective of this paper is to pointing out to weaknesses and critical assessment of the legislative environment, economic, planning and executive instruments relating to land in real estate development processes in Visegrad countries - the Slovak Republic, the Czech Republic, Hungary and Poland. At the outset, it should be added that the situation on this issue in these countries is very similar.

The methodology of this paper is based on an analysis of the theoretical bases of economic instruments related to real estate development in the area.

Research Method of the contribution is based on empirical research - gathering information for analysis of the current stage of issues. It is also based on collection of primary and secondary data about the economic and legislative instruments which are relating to development process and land development in selected countries. These analyzes were performed on available publications of foreign and domestic authors that relate to the research problems.

A Brief overview of the real estate market in Visegrad Countries

The real estate market in Visegrad Countries for the last more than twenty years has developed and undergone a long period of change. From the collective ownership of land, which was one of the main factors of production and the main idea of communist ideology through privatization and restructuring has passed on personal ownership of the land. However, this process has many shortcomings, such as the problem of identifying the original owners, whom the land had been unjustly taken and insufficient records in the land cadastres. Nevertheless, the last 20 years in Central and Eastern Europe there was a huge real estate boom, as evidenced by the amount of development projects both domestic and foreign companies.

In the early nineties, in the former socialist countries have become real estate development very disorganized and often reckless real estate competition. Commercial real estate transactions were primarily the result of direct

negotiations between buyer and seller, which is increasingly more carried out with the contribution of lawyers, because these operations have become much more complicated.

Land plays a key role in real estate development projects. Differently is perceived the price and value of the property by the developer or investor, and differently is perceived by the landowner. This raises for instance problems arising from the two values of land, but only one price. Therefore it is necessary the importance of coordination objectives of public and private sector in the development of a land use plan and development activities in the area.

Global land use and tax issues in recent decades have become much more complex. The introduction of breakdowns, planning and permitting system created ambiguity in the definition of private and socially created land values (Connellan, 2004). In other words, difficulties arise in separating and measuring of public and private components of land value. It may even be impossible to completely separate these two components of values, because of the changing technology and social norms create new property forms (Malme, Youngman, 2001).

Development process and any real estate development in the area implies a certain burden for a given land with which it is closely linked inducing additional cost to the developer beyond these processes. In contrast, the view of the municipality, these costs can be described as conditional investments or brought investments. There are various forms how investor should co-finance brought investments or related investments of public sector, or how he shall pay a tax or fee for improvement the creditworthiness of the property from public investment. A similar principle existed in Slovakia until 1989, when it was necessary for the larger investments to define, quantify and appreciate conditional and related investments for transport, technical equipment and community amenities (Nižňanský, 2013). Precisely this issue is very actual and need for its solution is more than necessary.

Development fees in Visegrad countries

Among the most common brought investments (or conditional investments) may include, for instance expansion or reconstruction of: transport infrastructure in the area of implemented a development project; the technical infrastructure (utilities - water networks, electricity networks, gas networks, waste management networks, etc.); the immediate surroundings of the project (playgrounds, sports fields, parks, benches, etc.).

Realization of those investments is shifting on the shoulders of public institutions, from which is expected that it will be covered from their budgets or possibly by means of loans, or in transition from EU funds. However, this approach burdens of all urban residents while benefits from the investment have only developers or limited range of living or new urban residents (Nižňanský, 2013).

Debate about what costs the developer must be added to the basic project usually takes place in the preparatory phase of the project. This issue in a concrete form enters when the application for planning permission is realized and when government gives binding statements. At this stage both parties must reach a consensus how to deal with and brought investment. Especially nowadays at the time of the real estate crisis and weakened interest in apartments or office spaces and increased price sensitivity of buyers is the debate considerably more difficult. Developers are pushing for even greater cost reduction of their projects.

Officially, there are formal and informal instruments which the municipality has available when dealing with the developers. Among the formal instruments include the local plan, including land use plans of zones and regulatory plans of municipality in which are specified limits concerning the maximum building-up of land, buildings distance from the road (street line), number of storeys of buildings, fence heights, greenery, slope of roofs, colour of roofs, etc. Binding regulations defining the future shape of urban and architectural division of new locations - e.g. minimum width and shape of roads, emphasis on clearance limit of streets (during winter maintenance), etc.

On the contrary among informal instruments can be included negotiations between the municipality and the developer about the design of new construction; about brought investments related to the planned development project - specifically the construction of new transport and technical infrastructure, the extension of existing transport and technical infrastructure, about realization of public buildings (schools, parks and other green spaces, public spaces, etc.) (Temelová, Puldová, 2010).

It should be added that, as well as in Visegrad Countries there is an absence of a set of informal planning tools at the local level, abroad known as Land Management. Land management it is perceived as system of informal land use and executive instruments, which is a comprehensive tool for guiding spatial development and also information platform for achieving consensual as well sustainable solutions in cross-sectional wide range of demand for land.

In general we can say that local authorities currently do not have any instruments that would enable effective negotiation with investors or developers. One of the reasons for this unsatisfactory situation in relation to local authorities and developers in the Czech Republic, Slovakia, Hungary and Poland is legislative environment of these countries and legislative tools that municipalities and local authorities have or rather they don't have available tools for effective negotiation with developers. The only tool at present by which consensus can be reached between municipalities and developers' regarding reimbursement of costs for technical infrastructure and public facilities associated with new construction is negotiation.

This has resulted in some negative aspects, such as, persuading investors to the realization of investments that often are not related to development activities. This often leads to attempts to influence municipal authorities in case of remission of additional investment and to corrupt practices. On the contrary, investors and developers are often pushed to absurd expenditure in case of disagreement with the requirements of municipalities (Nižňanský, 2013).

One possible solution offers the opportunity to draw inspiration from countries where the mentioned instruments are sufficiently developed. In Western European countries such as the Netherlands, Great Britain and Germany, the situation is vastly different. There are ongoing extensive discussions to individual developer's intention between local authorities and representatives of investors, which are governed by the nationwide rules. This concerns in particular the philosophy of a consensus in the rules towards to both negotiating parties succeeded as accurately as possible quantify external costs incurred in land as a result of realized investments.

Local politicians set the general rules how high developer contributions to infrastructure are expected to receive and officials shall be responsible for the negotiation with investors about these contributions. For example, in the Great Britain without the conclusion of a legally binding contract between the developer and the local authority investor does not get building permission, which obviously is not sufficiently effective mechanism to negotiate terms that are advantageous for the local authority. Thus, the negotiated conditions shall not apply to only to an investor who is committed to them, but it concerns to the land upon which the investment is realized. So if investor sells the land, the commitments remain valid also for the new owner. In case the investor tries to ask for some mitigation of obligations under the Contract with the local authority, the local authority may consider his request (Lepš, 2010). However, it is important to mention that there is also significant passivity on the side of developers in area for further development of the land (brought investments) where the activity is often postponed only to the municipality or to the network administrators.

In Slovakia is currently preparing forthcoming proposal of Act on charge for real estate development and amending and supplementing Act no. 583/2004 Coll. about financial rules of local governments and amending and supplementing certain laws, as amended, of which the proposer is The Union of Towns and Cities of Slovakia. This proposal is based on the concept of development fees (also exists e.g. in the UK and the Netherlands), which determines the participation of stake-holders in land development through the construction of technical and social infrastructure.

The creators of this proposal recommend implementing the issue of development fees into the law, instead of leaving the powers of this issue only in the negotiations between the municipality and the investor, despite the fact that this method is most often applied in other European countries. As reason for recommendation they referred the definition of clear rules for the main stakeholders: the municipality - the investor; acquisition of private resources for the execution of conditional and brought investment; and reduce corruption.

Development fees represent local taxes paid by investors, undertaking the construction of a particular object in the issuance of building permits. The fee is designed to cover capital costs due to investments related with a particular building, concerning the subsequent increased demand for services for which it is responsible government, therefore to build up, modernize or capacity expansion of local transport infra-structure, technical and social infrastructure. Within the structure of fees are distinguished the individual purposes, so that the payer knows how much of the total amount of paid fee applies for a particular purpose. By fees are charged housing and investment construction, with the general exceptions for: hospitals; religious buildings; construction of buildings associated with agriculture; expansion of industrial buildings with a floor area not exceeding 50% of the existing floor area (Nižňanský, 2013).

In the Czech Republic the existing instrument of Planning Agreement was introduced in "new" Construction Act (Act no. 183/2006) three years ago and allows to avoid mentioned problems. Planning agreement is a legally binding agreement about the participation of the applicant to build new or modifying old public infrastructure (Fibiger, 2009). Planning agreement closes municipality (or region) with the applicant for the purposes of implementation of regulatory plan. Current legislation allows in the zoning plan defining the areas for which is the processing and issuance of a regulatory plan is necessary condition for making decisions about changes in the land and at the same time condition of realization plan by entering into a planning agreement. So the developer can be force to land development in relation to the size of the planned project to build adequate public infrastructure of sufficient quality and in a reasonable period. There is no reason to believe that the planning agreement may only be used in case of lucrative sites where the developer is negotiating with municipalities and he is more willing to accept the conditions. Municipalities should use this planning instrument in all larger housing projects. It is necessary to avoid then a number of undesirable consequences of new construction, whether on physical, social and natural environment. Planning agreement may municipality enforce even without regulation plan within the process of zoning proceedings on the basis of § 88 of the Building Act, which says: "Building Authority interrupts zoning proceedings, except for reasons stated in the Administrative Regulations, also if the task puts such requirements for public transport and technical infrastructure that cannot be realized without the construction of new buildings and facilities or modifications of the existing, and also request the applicant to submit a planning agreement" (Macešková, 2009).

In Hungary, is not implemented any development fee to developers or investors. According to the Act LXXVIII of 1997 on the protection of the built environment, the municipality has the right to sign a contract with the owner of the future property. In competitive procedures could be established agreements in what proportion of costs will investor participate in the investment implications.

In Poland there are no specific fees for investors on sharing of costs from the investment construction, except fees from building permits and construction project. Owners should participate only in the costs of public infrastructure developed by local authorities. The public infrastructure fee is calculated on the basis of the increase in the value of a property due to the development of infrastructure and a percentage rate adopted by the city council (not to exceed 50%). The payment of the fee may be imposed by the city council within 3 years following the development of the infrastructure. The decision imposing the fee may be appealed against to the appeal committee and further to the administrative courts.

It is worth noting that the holders of the perpetual usufruct right do not participate in these costs. It is deemed that the perpetual usufruct fee covers the costs of public infrastructure (CMS Cameron McKenna, 2005).

Conclusion

The Visegrad model suffers from many infirmities such as lack of regulation in the form of spatial plans of zones; deficiencies in land cadastres; absence of cadastral information and publicly available information about market property prices; lack of economic instruments; weak planning system towards the protection of the public interest; lack of levers and rules which would allow local authorities to effectively negotiate with investors and the existence of a huge space for a backroom deals or even corrupt behaviour.

The aim, therefore, is to achieve a state in which local authorities would have been able to consistently quantify the external costs of the development project - the necessary investment to transportation, education and other services and to have effective tools to transfer these costs to the investor. Above mentioned principles are only the basics, which by per se cannot solve the existing problems. With legislative and other instruments is inseparably connected the level of political culture, the way of public discussion on planned development projects and land-use planning or methods to ensure the accountability of politicians and officials to the public.

Acknowledgements

This paper is supported from the project VEGA grant no. 1/1013/12, entitled "Economic aspects of energy savings in buildings".

References

- [1] CMS Cameron McKenna. (2005). Developer's guide to Poland. Second edition 2005/2006. Available on: <http://www.cms-cmck.com/Hubbard.FileSystem/files/Publication/fe7d1dd7-cace-419c-aa53-ba0a4bbe03e9/Presentation/PublicationAttachment/9d7618fa-bf73-4a6d-bccc-7b905fa6299f/developerguide2ndedition.pdf>
- [2] Connellan, O. (2004). Land Value Taxation in Britain. Experience and Opportunities. Lincoln Institute of Land Policy. Cambridge, Massachusetts. ISBN 1-55844-157-3
- [3] Fibiger J. (2009). Jak na suburbanizaci. *Stručný návod pro starosty, zastupitele, úředníky a občany*. Available on: http://www.agora-ce.cz/archive_files/Dokumenty_ke_stazeni/Jak_na_suburbanizaci.pdf
- [4] Lepš J. (2010). Developerské projekty a místní infrastruktura: Lekce z Velké Británie. Available on: <http://www.top09.cz/regiony/praha/regionalni-organizace/praha-11/medialni-vystupy/developerske-projekty-a-mistni-infrastruktura-lekce-z-velke-britanie-3772.html>
- [5] Macešková M. (2009). Nástroj pro usměrňování územního rozvoje obce: nebojte se plánovací smlouvy. *Suburbanizace.cz*. ISSN 1803-8239. p. 1-2
- [6] Malme J. H., Youngman J. M. (2001). The Development of Property Taxation in Economies in Transition. *World Bank Publications*. ISBN-13: 978-0-8213-4983-0
- [7] Nižňanský V. (2013). Rozvojové poplatky. *Komunálne výskumné a poradenské centrum, n.o. Piešťany*. 9 p.
- [8] Temelová J., Puldová P. (2010). Rezidenční výstavba v obci Bradlec: přístup ke spolupráci obce s developerem. *Suburbanizace.cz*. ISSN 1803-8239. 11 p.

Local Supporting Industry Linkages from Japanese FDI in Mexico's Western Region

*Leo Guzman-Anaya, leo.guzman8@gmail.com
University of Guadalajara, Mexico*

Local Supporting Industry Linkages from Japanese FDI in Mexico's Western Region

Abstract

Foreign Direct Investment (FDI) may benefit host countries by creating linkages with local suppliers and facilitating the transfer of knowledge, technology and know-how from foreign to domestic firms with eventual productivity enhancements¹. Using a logistic model and unpublished data from Japanese firms in Mexico's Western Region, this paper analyses the degree and factors that determine the usage of local suppliers. Econometric results show certain factors that determine the degree of linkages² between Japanese multinationals and endogenous suppliers. Specifically, supplier quality and production capacity are determinant for linkages in the short-term³. Also, Japanese firms that were established prior to the Mexico-Japan Economic Partnership Agreement are more likely to use local suppliers both in the short-term and long-term⁴.

Introduction

FDI has grown in importance to developing economies since the 1980s. Between 1970 and 1999, according to data from UNCTAD (2014), FDI inflows to developing countries represented between 22% and 25% of total FDI inflows. However, from 2000 to 2009 the share was increased to almost 50% of total flows, and in 2012, FDI inflows were concentrated primarily in developing countries representing 58% of total FDI. This has been achieved due to the attractiveness of developing countries for long-term investment projects and their active policies to relax restrictions on foreign capital. Developing economies have pursued to attract FDI expecting in return economic development through export growth and through "spillovers" generally associated with FDI (Carkovic & Levine, 2002).

According to Reganati and Sica (2007), spillovers from FDI can be either to firms in the same industry (horizontal spillovers) or to firms in linked industries (vertical spillovers). Javorcik (2008) mentions that spillovers are expected to be larger in vertically related industries due to the fact that foreign firms have incentives to create linkages with local suppliers and facilitate the transfer of knowledge and technology. This in turn benefits the multinational company by cost reduction and improvement of suppliers' processes and product quality. In this sense, it becomes relevant to analyse linkage creation from FDI to local suppliers in developing countries.

The study is focused on Japanese FDI in Mexico due to the fact that both countries signed an Economic Partnership Agreement (EPA) in 2005, and increases in FDI inflows from Japan have been observed⁵. Also, the Mexico-Japan EPA has a section regarding bilateral cooperation where emphasis is placed on local supporting industry linkages and small and medium size suppliers for Japanese multinationals. The increases in Japanese FDI inflows to Mexico were expected to be a source of linkages to Mexican suppliers, which would improve their productivity and competitiveness. However, it seems that linkages between Japanese companies and local suppliers have been scarce due to a limited local supplier base with quality and technological restrictions that inhibit their entrance to Japanese production chains (Tokoro,

¹ This has been extensively reviewed in the FDI literature. For example, see Balasubramanyam, Salisu, and Sapsford (1996), and Javorcik (2004).

² These results are in accordance with previous studies in Mexico in different industries such as electronics (Padilla, 2008; Dussel, 1999; Rivera, 2002; Rivera y Regino, 2004), televisions (Carrillo, 2002) and automotive (Lara, García & Trujano, 2004; Peres, 1990).

³ Tokoro (2006) mentions that limitations in terms of quality and required technology in Mexico's supporting industry has affected the possibility of linkages with Japanese companies.

⁴ Theoretically, as mentioned by Javorcik (2008), supplier relations take time to develop, so new FDI projects are less likely of using local suppliers.

⁵ According to data from Mexico's Secretary of Economy, FDI inflows from Japan were 139 million dollars in 2003 and by 2012 the inflows were increased to 1,812 million dollars.

2006). In this study analysis is focused on Japanese companies established in Mexico's western region and in the main factors that contribute to the existence or lack of linkages with local suppliers.

The paper is organized as follows: the second section presents the main theoretical arguments regarding linkage creation between foreign companies and local suppliers and the main empirical findings for Mexico; the third section depicts the data used in the analysis and the empirical methodology applied in the study; the fourth section presents the results obtained; finally the fifth section ends with some concluding remarks.

Theoretical Background and Empirical Findings

According to Javorcik (2008), several factors determine the presence and intensity of backward linkages. First, foreign firms determine the degree of local input usage depending on the openness of the economy, local customs system and transport costs. A more open economy enables foreign firms to import inputs from other countries. Also, low transport costs and an efficient and certain customs system will increase the usage of foreign suppliers as well.

Another determinant is the employment of a centralized supplier system by the foreign firm. If this is the case, local firms will have limited opportunity to insert themselves in production chains since supplier usage decisions are made at headquarters. Rivera (2002) found this to be true for the case of the electronic industry in the city of Guadalajara, Mexico. Results showed that U.S. multinationals followed input buying agreements negotiated at the headquarter company; creating an international supplier network that eliminated the possibility to incorporate or develop local suppliers.

Also, the need for customized inputs will determine the degree of local supplier inputs. The extent of local supplier development and the need for technologically advanced inputs will also decide the amount of linkages with local firms. In this sense, Padilla (2008) found very little evidence of linkage creation between foreign firms and local suppliers for the electronic industry in the states of Baja California and Jalisco, Mexico. Linkages between foreign and domestic firms were confined primarily to indirect inputs with low technological content. Similar results were reported by Dussel (1999) and Rivera and Regino (2004) for the state of Jalisco. Carrillo (2002) also found limited linkages from foreign firms with local suppliers for the T.V. industry in Baja California, Mexico.

An important determinant for linkages is the time that the foreign firm has operated in the host country. New FDI projects are less likely to use local inputs since it takes time to create client-supplier relations. This was empirically confirmed for Japanese firms by Kiyota, Matsuura, Urata and Wei (2008) in East and Southeast Asia, where using local suppliers was positively related with the time of operation in the host country by the Japanese affiliate, especially in China. Similar results were found in Belderbos, Capanelli and Fukao (2001) for the case of 272 Japanese subsidiaries in 24 countries. Belderbos et al. (2001) also found that certain factors from the host country increase linkages with Japanese firms. For example, infrastructure quality and size of the component supporting industry were significant. Restrictive trade policies diminish linkages, while local content regulations create linkages but not with local suppliers. Also, the fact that Japanese multinationals have time established in the host country and have joint ventures with local companies with lower levels of Research & Development (R&D) contribute to more vertical linkages. These results seem to indicate that for Japanese multinationals, time is needed to build linkages with local suppliers. For the case of this analysis, it is important to point out that Japanese FDI flows to Mexico have sharply increased since 2010. From 2010 to 2011 Japanese FDI flows increased 67%, and from 2011 to 2012 the percentage increase was 93%. This might indicate that since investment projects from Japan are primarily recent they probably have not yet developed linkages with local suppliers.

Finally, even if a foreign firm uses suppliers in the host country, these might be of foreign origin as well. It is common for suppliers of parts and components to follow a multinational company in the countries where they establish. In this case, FDI flows stimulate linkages with supporting industries, but practically no benefit is observed with local suppliers. Belderbos et al. (2001) found that Japanese multinationals vertically linked in industrial groups (*keiretsu*⁶) acquire most of their inputs from Japanese suppliers from the same cluster in the host country, eliminating

⁶ The Keiretsu represents a group of companies with interlaced business relations and sometimes shared stock participation.

the possibility for linkages with local suppliers. For the case of Japanese firms in the automotive industry, Smith and Florida (1994) found that suppliers of parts and components used in Japan by a multinational or in other countries have a tendency to follow car assemblers to new investment locations. If this tendency is observed for Japanese firms in Mexico, limited linkages are to be expected with local suppliers⁷.

Data and Empirical Model

The data used in this analysis was taken from a survey applied in 2013 to a universe of 68 Japanese firms in Mexico's Western region⁸ by the "Mexico-Japan Studies Program" at the University of Guadalajara, Mexico. In total, 50 valid answers were obtained, resulting in a response rate of 74%. The firms surveyed were concentrated primarily in Aguascalientes (37% of total valid answers), and in manufacturing activities with 74% respectively.

The survey included a section regarding linkages with local suppliers. Descriptive statistics showed that Japanese firms in terms raw materials, inputs and components, use mainly other foreign suppliers (73%) than local suppliers (63%). This difference is increased in technologically advanced activities, where foreign suppliers are used by 55% of Japanese firms surveyed and local firms only by 8%. Question regarding obstacles to linkages with local firms and qualification of local and foreign suppliers were also included.

Since the variables obtained from the survey are ordinal or categorical in nature, a logistic regression model is proposed to estimate probabilities of short-term and long-term linkages with local suppliers given certain characteristics perceived of the local supplier base by Japanese multinationals. We expect certain characteristics from suppliers such as quality, just-in-time delivery and productive capacity to be significant in explaining vertical linkages with Japanese firms. Also, certain characteristics of the Japanese firm might influence the existence of linkages, for example, the time of operation in Mexico or the fact that Japanese firms follow a centralized supplier system determined at headquarters. Finally, the location might also determine the existence of linkages and is included as an additional variable. The logit model can be expressed as:

$$P(Y_i = 1|X_i) = \log[P(Y_i = 1)/1 - P(Y_i = 1)] = \alpha + \beta_i X_i + \varepsilon_i \quad (1)$$

Specifically, the model proposed is as follows:

$$Y_i = \alpha + \beta_1 Quality_i + \beta_2 Costs_i + \beta_3 TimeDelivery_i + \beta_4 Obstacles_{ij} + \beta_5 EPA_i + \beta_6 State_i + \varepsilon_i \quad (2)$$

Where:

Y = Binary response variable that takes the value of 1 if the Japanese firm i uses a local supplier in the production process and a value of 0 if it doesn't.

Quality = Perceived quality of local suppliers by Japanese firms surveyed, values are ordinal and range from 1 to 3, where 1 represents "good quality", 2 represents "regular quality" and 3 represents "bad quality". We expect significant results for values of good or regular quality since this seems to be a determinant factor for vertical linkage creation with local firms for Japanese firms.

Costs = Perceived qualification of costs for local suppliers by Japanese firms surveyed, values are ordinal where 1 represents "competitive costs", 2 represents "regular costs" and 3 represents "uncompetitive costs". Competitive or regular costs are expected to be determinant for linkages with local firms.

Time Delivery = Qualification of local suppliers in terms of in-time delivery by Japanese firms, values are ordinal where 1 represents "good in-time delivery", 2 represents "regular in-time delivery" and 3 represents "bad in-time delivery". Since most Japanese firms follow a Just-in-time delivery system, this variable is expected to reflect the impact of in-time delivery systems from local firms on vertical linkages with Japanese firms.

Obstacles = Several obstacles might limit the linkages with local firms. In particular, three are explored all with binary values. First, the obstacle "policies from headquarters" takes a value of 1 if Japanese firm follows a centralized supplier system decided at headquarters and a value of 0 otherwise. Second, the obstacle "lack of interest from local suppliers" takes a value of 1 if Japanese firms believe local suppliers don't show interest to be part of global

⁷ Limited linkages with local suppliers in the Mexican automotive industry have been reported by Lara, Garcia and Trujano (2004) and Peres (1990).

⁸ The states included in the survey were Aguascalientes, Guanajuato, Jalisco, Queretaro and San Luis Potosi.

production chains and 0 if they do. And finally, the obstacle of “production capacity” where 1 represents that local suppliers meet production capacity requirements and 0 that they don’t according to surveyed firms.

EPA = Binary variable that is equal to 1 if the firm was established in Mexico prior to the Mexico-EPA agreement (2005), value is equal to 0 if establishment was post EPA agreement. We expect that firms established before the Mexico-Japan EPA to be more likely to have vertical linkages with local suppliers since they have had more time to build supplier-client relations in the host country.

State = Categorical variable representing the state in Mexico where the firm is established. States included in the survey were Aguascalientes, Guanajuato, Jalisco, Queretaro and San Luis Potosi. This variable controls for state-level characteristics that might affect the vertical linkages with local firms.

An additional model is explored to estimate probabilities of linkages in the future. A specific question in the survey asked if local suppliers were planned in future production processes (within a year of the survey) with a binary response of 1 if the answer was “yes” and 0 if response was “no”. This variable was included as response variable in an additional model. Explanatory variables were same as mentioned in model (2)

Estimation Results

Results from short-term linkages from Japanese firms and local suppliers are presented in table 1. From the predictor variables, it is shown that quality is a determinant factor for linkages. When quality of local suppliers is considered regular, the odd-ratio is 14.97 times higher than when quality is bad in terms of using a local supplier. When good quality is achieved, the odds-ratio is 57.65 times higher in terms of using local suppliers in the production process. These results seem to support those mentioned by Tokoro (2006) for the case of Japanese firms, which consider that quality of the Mexican supplier base to be the main factor to explain the existence or lack of linkages with local firms.

Other variables that showed interesting results were production capacity and the arrival date of the Japanese firm. Results show that when local firms show a desirable level of production capacity, odds ratio is increased 19.78 times. Similarly, when a Japanese firm arrived prior to the EPA odds ratio of using local suppliers is increased 8.52 times. These results show the importance of local firms in achieving a productive capacity that meets with Japanese firms’ standards to be able to enter these production chains. Also, another factor of importance is the arrival date of the Japanese multinationals, where firms that arrived prior to the EPA are more likely to create linkages with local firms since they probably have had the opportunity to create supplier-client relations with local firms.

An additional model was estimated to search for long-term linkage factors between Japanese and local firms. Results are presented in table 2. In the estimation results, the EPA variable showed that Japanese firms that arrived prior to 2005 have an odd ratio 13.9 times higher to create linkages with local firms in the long-term. These results seem to corroborate the theoretical contribution from Javorcik (2008) and the empirical findings from Kiyota et al. (2008) and Belderbos et al. (2001) regarding time as an important factor that determines linkages between multinationals and local suppliers.

TABLE 1: ESTIMATION RESULTS (SHORT-TERM LINKAGES)

Predictor	β	$SE\beta$	z	p	e^β
Quality (good)	4.05	2.62	1.55	0.12	57.65
Quality (regular)	2.71	1.45	1.87	0.06	14.97
Costs (good)	0.78	1.55	0.50	0.62	2.17
Costs (regular)	1.09	1.47	0.74	0.46	2.98
Time Delivery (good)	-1.82	2.31	-0.79	0.43	0.16
Time Delivery (regular)	-4.78	2.20	-2.17	0.03	0.01
Head Quarter Policies	-2.26	1.53	-1.48	0.14	0.10
Interest Local Suppliers	-2.74	1.75	-1.57	0.12	0.06
Production Capacity	2.98	1.42	2.10	0.04	19.78
EPA	2.14	1.17	1.84	0.07	8.52
Jalisco	-2.66	2.13	-1.25	0.21	0.07

Guanajuato	1.61	1.87	0.86	0.39	4.98
Aguascalientes	-1.55	1.43	-1.08	0.28	0.21
San Luis Potosi	-1.99	1.96	-1.02	0.31	0.14
Constant	-0.62	1.79	-0.35	0.73	

Notes: N = 46 obs / Overall model evaluation: $X^2 = 23.68$, $df = 14$, $p = 0.05$

TABLE 2: ESTIMATION RESULTS (LONG-TERM LINKAGES)

Predictor	β	$SE\beta$	z	p	e^β
Quality (regular)	1.49	1.23	1.21	0.23	4.46
Costs (good)	1.07	1.81	0.59	0.55	2.91
Costs (regular)	-1.80	1.82	-0.99	0.32	0.16
Time Delivery (good)	1.44	1.84	0.79	0.43	4.24
Time Delivery (regular)	0.83	1.35	0.62	0.54	2.30
Head Quarter Policies	2.24	1.84	1.22	0.22	9.35
Interest Local Suppliers	2.53	1.72	1.47	0.14	12.60
Production Capacity	-3.46	1.38	-2.51	0.01	0.03
EPA	2.63	1.46	1.80	0.07	13.90
Jalisco	-1.96	1.82	-1.08	0.28	0.14
Guanajuato	0.19	1.92	0.10	0.92	1.20
Aguascalientes	0.54	1.56	0.35	0.73	1.71
San Luis Potosi	-0.50	2.08	-0.24	0.81	0.60
Constant	0.09	1.89	0.05	0.96	

Notes: N = 46 obs / Overall model evaluation: $X^2 = 19.99$, $df = 13$, $p = 0.09$

Conclusions

FDI and its effects on local economies have been widely debated without a clear consensus. Special attention has been focused on linkages that multinational firms may create with local suppliers, especially since it is argued that vertical linkages create the conditions for spillovers to occur. Using survey data from Japanese firms located in Mexico's western region, this paper analysed factors that determine the usage of local providers in the short and long-term.

Results showed that quality is a determinant factor for local input usage in the short-term. Specifically, when local firms transition from a bad to a regular quality, the odds of using local suppliers is 14.97 times larger for regular quality suppliers than for bad quality suppliers. When a supplier exhibits good quality, then the odds ratio is 57.65 times larger. Another determinant factor was production capacity, where local firms that exhibit an adequate production capacity have an odds ratio 19.78 times higher than firms that don't. Finally, time of arrival was also significant for short-term linkages with local firms. Japanese firms that arrived prior to the EPA agreement have odds 8.52 times higher of creating linkages with local suppliers.

In terms of long-term supplier usage, the time of arrival showed to be a determinant factor. Specifically, a firm that arrived prior to the EPA 13.9 times more likely to create linkages with local firms in the long term.

The results reported here show that quality is a determinant factor for vertical for linkages from Japanese firms with the local supporting industry in the short-term and support those reported by Tokoro (2006). Local governments must not only generate conditions necessary for local supplier development but local firms must also increase the quality of inputs to be able to enter Japanese production chains. Also, production capacity was significant for short-term linkages. Finally, the arrival year of Japanese firms, specifically firms that were established prior the EPA agreement increase probabilities of using local suppliers both in the short and long-term. These results confirm the theoretical contributions from Javorcik (2008), where time is a determinant factor for linkages with local suppliers, and support those results reported by Kiyota et al. (2008) and Belderbos et al. (2001) for the specific case of Japanese firms.

References

- [1] Balasubramanyam, V.N., Salisu M. & Sapsford D. (1996). Foreign Direct Investment and Growth in EP and IS Countries. *The Economic Journal*, Vol. 106, pp. 92-105.
- [2] Belderbos R., Campanelli G. & Fukao K. (2001). Backward Vertical Linkages of Foreign Manufacturing Affiliates: Evidence from Japanese Multinationals. *World Development*, Vol. 29, No. 1, pp.189-208.
- [3] Carkovic, M. & Levine R. (2002). Does Foreign Direct Investment Accelerate Economic Growth? *Working Paper, University of Minnesota Department of Finance*.
- [4] Carrillo, J. (2002). La Industria de los Televisores en México: Integración y Proveedores Locales en Tijuana. *Asian Journal of Latin American Studies*, Vol. 15, No. 1, pp. 173-198.
- [5] Dussel Peters, E. (1999). La Subcontratación como Proceso de Aprendizaje: El Caso de la Electrónica en Jalisco (México) en la Década de los Noventa. *Serie Desarrollo Productivo CEPAL*, No. 55
- [6] Javorcik, B. (2004). Does Foreign Direct Investment Increase the Productivity of Local Firms? In Search of Spillovers through Backward Linkages. *American Economic Review*, Vol. 94, No. 3, pp. 605-627.
- [7] Javorcik, B. (2008). Can Survey Evidence Shed Light on Spillovers from Foreign Direct Investment? *The World Bank Research Observer*, Vol. 23, No. 2, pp. 139-159.
- [8] Kiyota, K., Matsuura T., Urata S. & Wei Y. (2008). Reconsidering the Backward Vertical Linkages of Foreign Manufacturing Affiliates: Evidence from Japanese Multinationals. *World Development*, Vol. 36, No. 8, pp. 1398-1414.
- [9] Lara, R. A., Garnica García A. & Trujano G. (2004). Cooperación y Competencia en el Sector de las Autopartes: El Caso de los Asientos, en Arturo Lara, editor, *Tecnología y Finanzas en un Marco de Política Económica Sistémica*. México: UAM-X, CSH, Depto. de Producción Económica.
- [10] Padilla Perez, R. (2008). A Regional Approach to Study Technology Transfers through Foreign Direct Investment: The Electronics Industry in Two Mexican Regions. *Research Policy*, Vol. 37, No. 5, pp. 849-860.
- [11] Peres, W. (1990). *Foreign Direct Investment and Industrial Development in Mexico*. Paris: OECD Publications.
- [12] Reganati, F. & Sica E. (2007). *Horizontal and Vertical Spillovers from FDI: Evidence from Panel Data for the Italian Manufacturing Sector*. *Journal of Business Economics and Management*, Vol. 7, No. 4, pp. 259-266.
- [13] Rivera Vargas, M. I. (2002). *Technology Transfer Via University-Industry Relationship: The case of the Foreign High Technology Industry in Mexico's Silicon Valley*. New York: Routledge Falmer.
- [14] Rivera Vargas, M. I. & Regino J. (2004). Entrenamiento y Aprendizaje Tecnológico en la Subcontratación: El Caso de los Proveedores Endógenos en la Industria Tecnológica. *Comercio Exterior*, Vol. 54, No. 3, pp. 196-206.
- [15] Smith, D. F. & Florida R. (1994). Agglomeration and industrial location: An econometric analysis of Japanese-affiliated manufacturing establishments in automotive-related industries. *Journal of Urban Economics*, Vol. 36, No. 1, pp. 23-41.
- [16] Tokoro, Y. (2006). México y Japón: Una Perspectiva del Acuerdo de Asociación Económica. *EconomíaUNAM*, Vol. 3, No. 7, pp. 47-68.

End Notes

Towards A Stakeholder Model of Risk Governance

Habibun Nisa Mohamed Ajmal, habibunn@sabah.uitm.edu.my
University Technology MARA, Malaysia

Towards A Stakeholder Model of Risk Governance

Abstract

Today's businesses face risks in intangible areas such as governance, ethics and reputation which prompt the establishment of a sound system of risk governance to sustain the company's survival. The success and failure of a company has direct and indirect impact on both shareholders and stakeholders. The stakeholder theory postulates that business can both create and destroy values for stakeholders. It has been advocated that the term CSR is redundant as the societal responsibility envisaged in it is already well-captured in the stakeholder theory. A new concept of CSR translates as Company's Stakeholder Responsibility which embraces the concept that all businesses despite size and wealth must consider stakeholders' interests and thus establish risk governance that transcends beyond shareholders' interests. Nevertheless, stakeholders other than the government generally lack the *locus standi* to monitor or enforce a company's risk governance despite being the ones most affected by its failure. This paper discusses the conceptual prospect of having a model of risk governance in Malaysia that facilitate stakeholders' interests and participation. The corporate governance in Malaysia is largely modelled on shareholder's primacy. Consequently, risk governance is predominantly concerned with the interests of the company and the shareholders. In aligning the interests of the company towards both shareholders and stakeholders, it is submitted that a stakeholder-oriented model of risk governance could serve the purpose based on two grounds; (1) shareholders are also stakeholders and (2) safeguarding stakeholders' interest through a sound system of risk governance resolves the question of how much attention a company should give to stakeholders as opposed to shareholders.

Introduction

The activities of the modern corporations have permeated all level of society bestowing opportunities for economic growth and subsequently raising the living standards in society. The stakeholder theory postulates that business can both create and destroy values for stakeholders (Freeman et al, 2010). All businesses create further business opportunity for suppliers, transporters, manufacturers and creditors. In turn, all these entrepreneurial activities provide gains in form of employment prospects, products and services for customers and the development of facilities and infrastructures that are mutually beneficial. At the same time, these activities can bring jeopardy in terms of health, safety and environmental risks that could threaten society for many years to come. Instances like the Bhopal plant disaster in India in 1984¹ and the Chernobyl nuclear disaster in Russia in 1986² highlight the grave impact of

¹ The disaster killed about 2,000 and injured more than 200,000 people, leading to numerous litigation processes in India and the United States. Peterson, M. J. (2009). Bhopal Plant Disaster – Situation Summary, Retrieved from <http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1004&context=edethicsinscience>

² The accident caused the deaths of 30 workers and radiation injuries to over a hundred others. Large areas surrounding Belarus, the Russian Federation and Ukraine were contaminated with radioactive materials and more

businesses that had poor risk governance. Risk governance is therefore an important aspect in corporate management and has become an accepted practice in most companies in Malaysia with risk management becoming the popular catchphrase of today's business environment. Although the concept of risk management encompasses all types of risks, its implementation has been mostly focused on shareholder's interest and business risks that could prejudice shareholders. This paper advocates the establishment of risk governance that addresses the interests of stakeholders as a means of safeguarding the corporate entity as well as its shareholders and stakeholders. This could be accomplished through a stakeholder-oriented approach that recognises the potential impact of corporate activities on the lives of the public and hence requires that corporations carry out their activities with regard to the well-being of these groups.

Definition of risk governance

Risk governance is normally discussed as a concept instead of a definition. Thus the International Risk Governance Council mention that better risk governance implies enabling societies to benefit from change while minimising the negative consequences of the associated risks.³ Risk governance focuses on applying the principles of sound corporate governance to the assessment and management of risks to ensure that risk-taking activities are aligned with an institution's capacity to absorb losses and its long-term viability.⁴ Risk governance consists of the process of identifying and managing risks in the form of internal controls. It is basically a mixture of governance, risk management and internal control integrated into a single management concept.

Intangible risk in the corporate sector

Businesses encounter risks which are less tangible than physical risk; the less tangible areas of business operation includes ethics and governance and the protection of corporate reputation.⁵ Companies face risk of litigation when shareholders and third parties suffer losses and harm due to commercial activities and these litigations can translate into liability risk and subsequently reputational risks regardless of whether the firm was in the wrong or not as media coverage can cause substantial doubt and damage. The bad publicity generated may last for a long time and will take much effort and costs to rectify as can be seen by the examples of lawsuits against Shell and Chevron for human rights violations in Nigeria (Millon, 2012). These types of risks can affect the long-term survival of a company and consequently the livelihood of numerous stakeholders who depend on the company for survival. It is thus imperative that companies allot sufficient attention to the management of these intangible risks through a robust and effective risk governance system that safeguard both the company and its shareholders while at the same time giving due recognition to the interests of stakeholders who might be affected.

than 200,000 people were evacuated and relocated from these places. Assessment report of United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) at <http://www.unscear.org/unscear/en/chernoby1.html>

³ International Risk Governance Council, <http://www.irgc.org/risk-governance/what-is-risk-governance/> accessed on 11 March 2014

⁴ Prudential Financial Policy Department, Central Bank of Malaysia (2013). Risk Governance. BNM/RH/GL 013-5, at page 1. It is concerned in particular with the roles of the board, senior management, and risk management control functions as well as the processes by which risk information is collected, analysed and communicated to provide a sound basis for management decisions. It is also concerned with the effects of incentives and organisational culture on risk-taking behaviours and perceptions of risk in the institution.

⁵ Drennan considers that threats such as governance failure, unethical behaviour and breaches of corporate social responsibility may cause damage to an organisation's reputation which will not only bring about financial losses but also undermine stakeholder confidence and, ultimately lead to corporate collapse. Drennan, L. T. (2004). Ethics, Governance and risk management: Lessons from mirror group newspapers and Barings Bank. *Journal of Business Ethics*, 52, 257–266, at page 265

The Stakeholder Theory

The agency theory highlights the main facet of today's corporation; the separation between ownership and management. This has led to questions on the role of management in making decisions for the company; whose interest should the management serve? For decades, it has been argued that companies should be run with the sole objective of maximising shareholders' wealth and that any decision that goes counter to shareholders' interests are bad and invalid decisions (Friedman, 1970). This was epitomised in the US case of *Dodge v. Ford Motor Co.* (170 N.W. 668 (1919)) where shareholders challenged the company's decision to use corporate funds to advance the interests of employees instead of paying dividends to shareholders. In upholding the shareholders' claim, the court declared that a company exists for the creation of its shareholders' wealth and thus the board must formulate its decision around this consideration. This decision seems to endorse the points made in the theory of the firm that shareholders being the residual claimant of a company's assets are entitled to expect that the company's activities are designed for their well-being.

On the other hand, some scholars have criticised this view and emphasises the position of stakeholders who are affected by corporate decisions and have a stake in a company's success or failure. These stakeholders have legitimate interests in a company's activities and hence should not be left out of management's deliberation when making decision. Dodd (1932) observed that although companies are required to pursue profit for their shareholders, it does not preclude management from considering social responsibility that may serve the company's benefit in the long term. He proclaimed that "Business - which is the economic organization of society -is private property only in a qualified sense, and society may properly demand that it be carried on in such a way as to safeguard the interests of those who deal with it either as employees or consumers even if the proprietary rights of its owners are thereby curtailed."

Freeman further promoted the stakeholder theory with his idea that stakeholders are an integral part of a business and should be included in a firm's strategic decision-making process (Freeman and Reed, 1983). The idea centred on the concept that stakeholders have a stake in the activities of a firm and thus their input should be solicited before the firm embarks upon an enterprise that may either positively or negatively affect the stakeholders' interests. Stakeholder theory is primarily rooted in moral theory as it underlines the obligations of businesses towards their stakeholders (Freeman et al, (2010). This can be translated as a moral rather than legal obligation and is premised upon the voluntary effort of a firm's management to include stakeholders in their spheres of consideration.

The view taken by stakeholder's theorists naturally collided with the opposite view exhibited by those who champion the shareholder's primacy theory (Berle, 1931, Goodpaster, 1991). The latter criticised the former as being unrealistic for its inability to foremost determine the definition and scope of the populace who qualifies as stakeholders and the difficulty of ascertaining and resolving the competing interests of various different stakeholders. The tension created between the two viewpoints reached a kind of apex with the publication of an article by Hansmann and Kraakman in 2001 which was provokingly titled "The End of History for Corporate Law". The article posited that worldwide recognition of shareholder primacy has led to its acceptance as the foundation for corporate function and thus rendered other competing hypothesis as superfluous. Rotman (2011) however contended that the Enron and WorldCom mishap which took place within months of the article's publication had irrefutably rejected the idea of shareholder primacy as the superior theory in corporate law by showing the disastrous result of concentrating on maximising short-term shareholder values that was engineered by management in both companies. Enron and other corporate calamities that ensued in the following years were often quoted as examples of corporate governance issues that were related to the pursuit of short-term strategies aligned with shareholders' short-term interest in seeing share prices soar. This led to some unreasonable and excessive risk-taking that appeared successful in the short-term but proved to be disastrous in the long run and had distressed more than the shareholders. In other words, stakeholders suffered in the quest for shareholders' interests. This led to doubts on the shareholder primacy concept and renewed the search for a better alternative with stakeholder theory being one of its main contenders. This paper nevertheless recognises that there are merits to the arguments propositioned by both opposing sides to the debate and does not attempt to resolve the issue.

Instead this paper will discuss the possibility of using some elements from the stakeholder theory to devise ways to strengthen stakeholders' interests in the face of potential risks generated by corporate activities.

Despite its promise, stakeholder theory is subject to some difficulties that may detract from its potential. The wide class of population that can be categorised as a stakeholder results in a huge and confusing pool of individuals who do not stand on equal footing and may have contradictory interests to one and another. This would cause considerable difficulty to managers and may dissuade them from pursuing a stakeholder-oriented policy. The multiplicity of constituencies to consider may also result in directors being less accountable as there would be no identifiable yardstick to determine how directors have performed their duties (Hampel Committee, 1998). In the event the company favours a particular class of stakeholders, the opposing side may turn hostile and create more problems for the company. Secondly, the law and the courts are not capable of dealing with stakeholder theory as legal decision is an exercise in making choices of winners between competing parties where *rights* will always prevail over *interests*. The wording of stakeholder in terms of interests rather than rights constitutes ambiguity and uncertainty on how to treat these constituencies and hence will impede stakeholder's claims in court. (Vasudev, 2011) Within the current legal regime, only creditors and employees have clear established rights that may hold sway in corporate purpose. Although the law can protect other stakeholders such as customers and suppliers through contracts, torts and consumer law, these are in the form of remedial measures and do not incur a legal obligation on the part of the company to consider them in decision-making. Consequently, the legal position of stakeholders is relatively weak and it is rare for stakeholders to triumph in a legal battle with businesses.

The law in Malaysia have generally not accorded recognition of stakeholders' interests as part of a company's management priority. Section 132(1) of the Companies Act 1965 states that "A director of a company shall at all times exercise his powers for a proper purpose and in good faith in the best interest of the company." The best interest of the company has been understood to mean the collective interest of the company's shareholders. Courts have generally adopted the common law principle enunciated in *Greenhalgh v Aderne Cinemas Ltd* ([1951] Ch 286) which interpreted the term 'in the best interest of the company' as something that cannot be considered in isolation from the interests of a company's shareholders. In their review of the Companies Act, the Corporate Law Reform Committee (CLRC) reiterated that the shareholders theory is the law where directors' duty and accountability are concerned. Although the CLRC espoused the idea that a company should cultivate a good relationship with its stakeholders, it was of the view that a company's social obligations should not be included in the Companies Act. The law nevertheless gives an implicit acknowledgement of stakeholders' interests through the use of the business judgment rule as justification or defence for management decision that favours stakeholders over shareholders. Under the business judgment rule, courts would not interfere with the business decision of a company's board as long as it is made in good faith and for the interest of the company. A company may thus justify consideration of a stakeholder's interest such as an employee, as being in the interest of the company.

Stakeholder theory and CSR

Stakeholder theory has often been associated with Corporate Social Responsibility (CSR) as justification for the call that companies concern themselves with social issues and accountability to the general public. CSR is however, mostly concerned about the social impact of corporate activities and tends to treat business and social responsibility as a separate concept in contrast to the stakeholder theory which is founded on an integration of business and societal concerns. As can be observed in many company's annual report, most companies view CSR as an add-on value that demonstrate the company's civic awareness and helps to enhance the company's image and generate free publicity. CSR is rarely shown to be a genuine engagement with stakeholders but more of a charitable and recreational exercise that allows a company to assuage stakeholders' concern and indirectly promote the company's business (Barraclough & Morrow, 2008). Freeman himself has expressed a sense of unease with the perception that CSR is an enhancement tool that companies should have for an added value (Elms et al, 2011). It has thus been advocated that the term CSR is now redundant as the stakeholder theory has already captured the societal responsibility envisioned in it (Freeman & Moutchnik, 2013). Instead a new proposed concept of CSR is labelled as 'Company's Stakeholder Responsibility'

and embraces the notion of a company's responsibility to stakeholders in a wider sense and focusing on all companies irrespective of size and wealth.

Elements of CSR can nonetheless be seen in the Malaysian corporate governance code which encourages companies to consider the interests of stakeholders.⁶ The code itself defined corporate governance as "The process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realising long-term shareholder value, *whilst taking into account the interests of other stakeholders*"⁷ [emphasis added]. Consequently, the corporate landscape in Malaysia is shaped by shareholders' primacy along with a moral obligation to consider stakeholders' interest albeit in a manner that is skewed toward CSR than a genuine engagement with stakeholders.

The approach towards risk governance in Malaysia

Risk governance in Malaysia is regulated by the Malaysian Code on Corporate Governance 2012 through a 'comply or explain' approach similar to the one employed in the United Kingdom. All companies are expected to apply the recommendations contained in the code. Listed companies are required to report the state of their risk management and internal control system in their annual reports. On the other hand, unlisted public companies are mandated to set up an internal control system under section 167A of the Companies Act 1965. Although the section does not mention anything about risk management, the concept of risk governance can be implied from the setting up of internal control. There are also other legislation which do not use the term risk management but nonetheless prescribes businesses to assess risk and provide preventive measures such as the Occupational Safety and Health Act 1994, the Petroleum (Safety Measures) Act 1984 and the Atomic Energy Licensing (Basic Safety Radiation Protection) Regulations 2010 to name a few. These legislations address specific risk issues in a particular industry and are generally aimed at the protection of workers and consumers. Consequently, there is a mix of legislation and self-regulation in the regulation of risk governance in Malaysia.

The approach to risk governance in the Companies Act 1965 and the corporate governance code is geared towards shareholders interests where risk management and internal control are conceived as mechanisms to protect the company in the interests of shareholders and investors. Principle 6 of the Malaysian Code on Corporate Governance 2012 states that "The board should determine the company's level of risk tolerance and actively identify, assess and monitor key business risks *to safeguard shareholders' investments* and the company's assets" [emphasis added].⁸ A similar provision could be found in the previous versions of the code.⁹ Some references to stakeholders could be seen in the code's proposition that a company's strategies should include attention to sustainability which comprised of environmental, social and governance aspects that needed to be balanced with the interest of various stakeholders.¹⁰ The company is advocated to disclose the policies adopted and their implementation in the company's annual report and corporate website. Although the code encourages communication with both shareholders and stakeholders, more focus is given on the views and feedbacks from shareholders. Overall, the basis of risk governance is on the survival and continuity of the company which indubitably champion shareholders' cause and indirectly contribute to stakeholders' interest as the quest for the long-term survival of the business is a goal common to all stakeholders (Speckbacher & Wentges, 2009) but this may not necessarily favour stakeholders.

Risk governance in Malaysia is mainly effected through disclosure and self-reporting. Companies are required to report their risk management and internal control practices in their annual reports. Although guidance is

⁶ Foreword to the Malaysian Code on Corporate Governance 2012 at page v

⁷ Malaysian Code on Corporate Governance 2012 at page viii

⁸ Commentary to Recommendation 6.1 of the Malaysian Code on Corporate Governance 2012 at page 6-1

⁹ The initial corporate governance code of 2000 provided that a company should have a sound system of internal control to safeguard shareholders' investment and that the system should include financial, operational and compliance controls as well as risk management as these are areas of potential threats to shareholders' investment; Malaysian Code on Corporate Governance 2000 at page 20

¹⁰ Recommendation 1.4 and its commentary, Malaysian Code on Corporate Governance 2012 at page 1-3

available on the format and content of the report, companies are generally at a liberty to determine what to include in their report. It has been observed that some company's report simply gloss over the information relating to their risk governance practices while some companies employ technical terms and intricate jargons. While investors may not find the latter difficult to comprehend, stakeholders might encounter some problem in understanding them and subsequently failed to grasp the crux of the information. Companies have also not been forthcoming about information relating to CSR and other stakeholder-related issues. Most reports depict welfare and charitable causes and social activities within the community. Although there are references to safety and health and the environment, these are cursory statements that are devoid of specific details and mostly reaffirm the company's legal obligations. Most reports also do not specify the actual and potential risks represented by the company's activities. Reading these reports, stakeholders would not find much to alert them on the potential risks from the company's activities.

A Stakeholder-based model of risk governance

There are two kinds of risk failure events contemplated in this paper. The first is where a company suffers financial difficulties and the second is where a company's activities caused losses or harm to a third party. Both situations would occur as a direct or indirect result of risk governance failure and in both situations, stakeholders including shareholders will bear some of the loss or harm. Consequently, a stakeholder-based risk governance approach attempts to protect the interests of the relevant stakeholders through mutual participation by the company and its stakeholders.

Why risk governance must consider stakeholders

It is not disputed that shareholders are potential victims of risk governance failures; if companies suffer financial losses, shareholders will certainly share the losses. Nevertheless, a shareholder's loss is limited to financial losses and most shareholders have diversified investment portfolios so that the loss in one company may be off-set by the profits in another company (Bodnaruk et al, 2008). The situation is different for some stakeholders. An employee for instance, is committed to a single employer and cannot easily off-set the damages caused by the loss of employment with another job. The employee might have invested in special skills and knowledge that are specific to that particular employer and thus cannot obtain a similar opportunity elsewhere. Some businesses may be the driving force of economic development in a particular region or locality. If such businesses fail, suppliers and independent contractors may also suffer financial losses and collapse resulting in more loss of employment and consequently weakening consumer buying power which will ultimately weaken the region's economy. Shareholders can also cut their losses by selling their shares in the company when they are unhappy or not satisfied with the company's decisions. On the other hand, stakeholders cannot easily choose to disassociate themselves from the company's activities and its impact. Furthermore, stakeholders may have implicit claims on the firm that should be honoured after explicit claims have been met (Speckbacher & Wentges, 2009). For instance, training and further education opportunities for employees and charitable donations and welfare programs for the community may be withdrawn or reduced in order to compensate for earnings loss or to meet external claims on the firm or simply to increase profits.

More importantly, a shareholder's loss is confined to financial losses while stakeholders may suffer more than financial difficulties when risks are not properly managed. Employees may be injured by poor safety measures; consumers may be harmed by unsafe products or services and the surrounding community may be exposed to hazardous substances emitted by a company's factory. This threat to the stakeholders could be more damaging than the financial losses suffered by shareholders. For instance, the displacement of several indigenous native villages in Sarawak, Malaysia for the construction of the Bakun Dam project¹¹ and the evacuation of residents in Seveso, Italy following the dioxin contamination at the ICMESA chemical plant in 1976 (Centemeri, 2009). In addition, stakeholders bear some of the financial losses suffered by companies when government orchestrate bailouts with taxpayers' money usually on the pretext of protecting stakeholders such as employees, creditors and the economy. Such bailouts divert funds that could have been used for socio-economic projects that helps the public and it is done without the consent and blessing of the taxpayers. It goes against all principles of morality that a company should be

¹¹ At <http://indigenouspeoplesissues.com/> accessed on 22 May 2014

allowed to structure its activities for the good of the shareholders alone but is entitled to public money in the name of safeguarding stakeholders' interests when it runs into trouble. It could thus be argued that stakeholders have a greater stake than shareholders in the well-being of a business.

The opposing interests of competing stakeholders

In practice, the attention to stakeholders' interest must of necessity be limited; there is simply no way for management to identify all stakeholders and consider the interests represented by each and every one of them. The company may attempt to communicate with all of them and offer to hear their views but it would be absurd to expect a company to be able to satisfy everyone especially when there are competing interests. Examples of competing interests can be seen when a business has decided to relocate its operation to third world countries for cheaper costs; it has clearly benefited shareholders, customers and probably creditors by selling goods at cheaper price and thus increasing sales and profit but it had also resulted in harm by causing the closing of factories in the host country that led to unemployment and loss of business to suppliers and contractors which in turn created socio-economic problems to the surrounding community that depended upon the business. In this situation, the stakeholder theory could be either the supporting or opposing philosophy as both approaches favour the interests of some group of stakeholders over another. The conflicting needs and interests of different stakeholders may also burden companies that are genuinely interested in doing the right thing. Unfortunately, doing the right and responsible thing involve costs and stakeholders might not be willing to bear the costs. For instance, producing eco-friendly goods require new technology and materials that may be more costly to consumers. If only a small group of consumers are willing to pay the price for protecting the environment, the business would lose its customers and profits and subsequently close down (Minoja, 2012). In this situation, a few stakeholders (customers, environmental activists, the environment) would win but more stakeholders (employees, suppliers, contractors, the community) would suffer the consequences. There is thus a need to balance the interests of these competing stakeholders in a practical and realistic way. This paper concedes that this is not an easy task and that this requires further research. Therefore this paper focuses on only one part of the problem that is the competing interests in risk management determination.

Stakeholders' engagement is important to determine the level and extent of a company's attention to risk governance issues. For a start, stakeholders must be willing to accept a 'loss some, gain some' situation as any decision taken by a company would result in some winners and some losers. Thus the issue relates to what and who to sacrifice and whether that constituent is willing to be sacrificed. For example, Minoja (2012) recounted the decision of an Italian firm Sabaf to reject the prospect of a contract with a customer who was not willing to bear the costs of installing safety features in gas ovens to be sold to consumers in Brazil. It instead focused on consumers in Europe and elsewhere who were willing to pay a higher price for safe and environmentally-friendly products. By advancing the interest of some stakeholders i.e. the safety and environmentally conscious and better-off consumers, Sabaf has rejected the need of another stakeholder i.e. the underprivileged section of the community. This illustrates the reality of choosing between competing interests where a company must determine which stakeholders and interests to prioritise and which to pass over. It must however be noted that where a company's decision involves the risk of harm to others, there might not really be much of a choice despite the costs and business opportunities to be sacrificed. For instance, contractors cannot use low-quality materials to construct a building if the materials are known to be unsafe even when the choice of using better materials would incur more costs. In such a situation, the interest of safety must prevail over other interests and guide the company's decision.

Risk governance may be able to address the problem of who is a stakeholder by identifying and assessing stakeholders according to the scope and level of risks posed to each and by prioritising preventive measures based on this assessment. The exclusion of certain class of stakeholder can be readily justified by the risk assessment process and thus lessen the possibility of hostile reaction. The definition of stakeholder in risk governance derives from the second part of Freeman's definition – those who are affected by a firm's activities. This definition of stakeholder implies references to risk governance as stakeholders can be affected by many of the firm's activities such as safety risks to workers and unsafe products used by consumers. The process of risk management allows identification of stakeholders according to the situation and relevancy and thus resolves the problem of who is a stakeholder for that purpose. This would be the second group of stakeholders in Freeman's definition; those who are not necessarily part of the value-chain of the business but can be harmed by the firm's activities and therefore the firm owes a moral

obligation to safeguard them from foreseeable harm. This definition of stakeholders does not encompass society as a whole arbitrarily; society may be a stakeholder but only in a limited and identified manner. Hence, if a business activity releases noxious substances that seep into soils and water that is used by the public, society inevitably becomes a stakeholder by default but otherwise stakeholders are those individually identified by the risk management process. The identification of stakeholder is thus according to the risk identified which would allow the prioritisation of stakeholders and the resolution of competing interests.

Legal constraint faced by stakeholders

While shareholders may bring up their grievances in the company's meetings, stakeholders technically have no avenue to do so except through complaints and public demonstration. Among the group of stakeholders, the government is the only one who can take action to compel companies to manage their risks through legislative schemes or regulatory action. The only exception is when a particular stakeholder suffers loss or injury from corporate activities and sues under negligence or nuisance but this is purely a corrective post-action rather than a preventive one. Stakeholders also have no access to corporate information that can impact their interests as some company's reports are not available to the public.¹² Businesses also tend to favour communication with customers only which is targeted for profit enhancing objectives (Spitzeck & Hansen, 2010). Consequently, stakeholders might not even be aware of the potential threats posed by a company's activities and hence failed to take the necessary precautions that could have safeguarded their interests. Stakeholders' engagement in Malaysia can be considered to be at its infancy; members of the public are generally unaware of corporate activities and their impact unless disaster strikes and media coverage amplify the event and its consequences such as the recent disappearance of the MH370 flight and the collapse of bridges and buildings around the country. But such news are usually forgotten soon and whatever protests or dissatisfaction that were raised would also be soon forgotten. It is usually NGOs who continue to pursue social and public-interest issues but their activities are generally limited to members only and their views only sought when some tragedy occurs. Consequently, businesses are able to operate with minimal interruption from the public. Matters are aggravated by the large presence of cheap foreign labours that are usually the ones involved in the work operation and are the ones who affect and become affected by the activities carried out by the business. This under-privileged group is unlikely to be too concerned about risk governance issues and would be justifiably hesitant to report risk-laden practices by their employers. Consequently, stakeholders are vulnerable to the possibility of harm by corporate activities that poorly or irresponsibly managed its risks.

It is neither reasonable nor prudent to expect that shareholders shoulder the task of safeguarding stakeholders' interests even if those interests might coincide with shareholders' interest. Shareholders might not be interested in information that has no direct bearing to their investment and hence ignore corporate information that relates to stakeholders interests. Hence, there must be some kind of avenue which allows stakeholders to safeguard their interests and risk governance can conceivably fulfil some of this need.

Stakeholder participation in risk governance

A stakeholder model of risk governance attempts to address the gap in the current regulation that places a heavy reliance on shareholders' interest and on business and financial risks to the extent that companies appear to unconsciously neglect the interests of stakeholders. This model envisions the role of stakeholders in risk governance considerations through participation in decision-making and risk preventive mechanisms. Public participation is especially important where the business activities involved innovation and scientific technology as most members of the public are unable to comprehend the terms and concepts used and hence are not able to gauge the potential impact of those activities on their interests (Marchi, 2003). Inviting stakeholders' participation would likely persuade stakeholders to co-operate with the company and subsequently offer assistance in the event of an adverse event (Ahrens & Rudolph, 2006). This consultation-like meeting should be made obligatory but the mode and frequency of the meeting left to the discretion of the company. The mode of participation can be both formal and informal depending on the type of audience. The objective would be to allow stakeholders to know about the potential risks of the

¹² The annual reports of public listed companies are available on the Bursa Malaysia website but those of public unlisted companies can only be accessed through the Companies Commission with the payment of considerable fees

company's activities and the precautions taken to prevent the risks from materialising. This affords stakeholders with the opportunity to voice their concerns and make their views known to the company. It does not advocate that stakeholders have a right to interfere in a company's decision-making process. Instead stakeholders would occupy a similar position to shareholders whereby their views may be put forward to the company for deliberation but the company's board would still retain its authority to make the final decision. Although companies are not compelled to abide by the stakeholders' view or demand, there is an implied obligation on part of management to satisfy at least some of the demand in order to maintain the company's image and to maintain the support from stakeholders. In return, a company gains a chance to elicit information that could assist in its decision-making and enhance its operations. Many man-made disasters have been attributed to the failure of identifying risks or assessing the magnitude of the risks (Gibson, 2010) and one reason for this is the lack of information available. It is thus in the company's interest to acquire information from stakeholders that might impact its risk governance decisions. Another obvious benefit to this is that companies and stakeholders can interact in a non-hostile environment and therefore prevent unnecessary altercation that could prove costly to both parties. A company might also be persuaded to enter into stakeholders' engagement voluntarily in an attempt to prevent a move by the government to introduce legislation or more prescriptive regulations to compel better risk governance practices in the corporate sector.

A possible drawback to this suggestion is the determination of the relevant stakeholders to participate in the meeting. The company might unintentionally overlook certain stakeholders whose views and positions are important to the decision-making. This would not only result in an imperfect decision-making but would also generate unwarranted hostility from the overlooked constituent and alienate them. On the other hand, the participation of too many stakeholders might dilute the engagement process and create unnecessary conflict between the company and the stakeholders. It is therefore important for the company to realistically conduct its risk assessment process in order to identify the relevant stakeholders affected by those risks. This would necessitate the establishment of a sound risk management system in line with the requirement in the corporate governance code. The company must also be clear and consistent on its policy and philosophy for dealing with stakeholders' interest to avoid cases of misrepresentation or misunderstanding that could negatively affect the company-stakeholders relationship.

Stakeholders' participation in risk governance can also equip them with the necessary knowledge and information to safeguard themselves from threats emanating from the company's activities. This is important in two ways; firstly, a company's business may be so vital to the country that despite the risks that stemmed from its activities, its continued operation cannot be hindered. Secondly, every individual is to a certain extent, responsible for his/her own well-being and hence must take the necessary precautions to protect him/herself. An individual should not be permitted to wholly put the blame on others, in this case the company, if he/she had not taken some form of precautions. This is contrary to the notion of justice and self-determination (Ryan & Deci, 2000). For example, in *Froom v Butcher* ([1976] 1 QB 286), a passenger who was injured by the reckless driving of the driver was considered to be contributorily negligent by his failure to wear a seat belt. He had the duty to safeguard himself by taking the practical and legally mandated precaution of wearing a seat belt and cannot fully blame the driver for his injuries although this does not absolve the driver from his negligence. In the same way all individual have the duty to protect himself from foreseeable harm by taking reasonable precautions. In order to do so, information is important so that the particular individual is able to comprehend the risks that he/she face and subsequently, ascertain the safety measures to be adopted. This can only be accomplished through the dissemination of relevant information from companies to stakeholders (Ahrens & Rudolph, 2006). This can be made possible through communications in the corporate website, the company's annual report and brochures. The company could also pursue a more aggressive strategy through dialogue with stakeholders, organising seminars and talk, awareness campaign and having a demonstration on safety measures and emergency procedures. The company could also demonstrate its goodwill by organising site visits to its work premises to provide assurance to stakeholders that its risk governance practices are reasonably adequate to deal with any potential threats. This kind of concession would not only convey the company's commitment to good risk governance and enhance its reputation but also avert unnecessary confrontation with ill-informed persons.

Keeping in mind the absence of a legal authority to expound the notion that a company's management should consider the interest of non-shareholders, it would require legislative initiative to compel companies to contemplate stakeholders' interest in their decision-making. The industry has already indicated its preference for non-legal

measures in regulating businesses as evidenced by the adoption of the 'comply or explain' approach in the corporate governance code which was led and supported by the private sector. CLRC had also decided to not legislate on company-stakeholder relations in their review of the Companies Act 1965. Consequently, it is submitted that a non-prescriptive approach such as the one advocated in the corporate governance code would be more suitable and practical. Freeman et al (2010) insists that the stakeholder theory can be employed without changing the law and it has often been expounded that soft law might achieve better results than a rigid 'command and control' approach in soliciting compliance from businesses (Ribstein, 2002). Accordingly, this model of risk governance should adopt a non-prescriptive approach that encourages companies to voluntarily structure their risk governance to accommodate stakeholders' interests. It is felt that such an approach would elicit a better reception than a prescriptive one as it offers flexibility to companies to work out the strategies that would best serve their interest. It also provides continuity with the current regulation that is based on the 'comply or explain' approach. The obvious benefit to this approach is that companies and stakeholders can interact in a non-hostile environment and therefore prevent unnecessary altercation that could prove costly to both parties. The company also gains an additional benefit through the boost to its reputation when it voluntarily solicits stakeholder's participation and translates them into company's policy or decisions. In the event the initiative failed to achieve its target, compulsory regulation can later be introduced as an alternative. As companies have more to gain from voluntary stakeholders' engagement, it can be predicted that the corporate sector would be less likely to oppose this suggestion and may be persuaded to comply.

Conclusion

Risk governance is an important part of the management of a business. The consequences of a risk governance failure have been magnified through the scores of man-made disasters throughout the years whether in the form of financial catastrophes, human casualties or environmental calamities. In all cases, there are victims who suffer direct or indirect harm. In most situations, these stakeholders were never accorded the choice to accept or reject the risks and are powerless to avoid the harm that ensued when those risks materialised. It is therefore important that stakeholders be given a say in something that gravely affects them so that they may exercise some kind of autonomy and devise ways to safeguard their interests. A stakeholder-based model of risk governance can help to achieve this objective by giving stakeholders the opportunity to participate in the decision-making process of a company's risk governance exercise. In order to do so, the corporate governance code would need to be amended to incorporate stakeholder consideration and participation in a company's risk governance determination through best practices and recommendations in the code. These provisions should be able to steer companies into making a serious effort to take into account the interests of stakeholders when they evaluate the risk profile of activities within the company. Companies should disclose their strategies to identify stakeholders that may be affected by their activities and their efforts to deal with those risks. Although risks to stakeholders might never be fully avoided, it would allow a better possibility to prevent the risks from materialising and mitigate the impact on the stakeholders concerned.

References

- [1] Barraclough, S. & Morrow, M. (2008) A grim contradiction: The practice and consequences of corporate social responsibility by British American Tobacco in Malaysia [Electronic version]. *Social Science & Medicine* 66, 1784-1796.
- [2] Berle, A. A. (1930-1931). Corporate powers as powers in trust [Electronic version]. *Harvard Law Review*, 44, 1049- 1074. Retrieved from <http://heinonline.org>.
- [3] Centemeri, L. (2009, May). *A sociological analysis of dioxin pollution in Seveso (Italy): Workers and inhabitants at stake* [Electronic version]. Paper presented at the International Conference on Industrial Risks, Labor and Public Health: An Interdisciplinary Analysis by Social Sciences and Epidemiology, National Taiwan University, College of Public Health
- [4] Elms, H., Johnson-Cramer, M. E. & Berman, S. L. (2011). Bounding the world's miseries: Corporate responsibility and Freeman's stakeholder theory. In R. A. Phillips (Ed.), *Stakeholder theory: Impact and prospects* (pp.1-38). Cheltenham, United Kingdom; Edward Elger Publishing Limited
- [5] Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L. & De Colle, S. (2010). *Stakeholder theory: The state of the art*. New York, United States; Cambridge University Press.
- [6] Freeman, E. and Moutchnik, A. (2013). Stakeholder management and CSR: Questions and answers [Electronic version]. *uwf UmweltWirtschaftsForum*, 21(1-2), 5-9
- [7] Friedman, M. (1970, September 13). The Social Responsibility of Business is to Increase its Profits [Electronic version]. *New York Times Magazine*, Retrieved from <http://www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html>
- [8] Goodpaster, K. E. (1991). Business ethics and stakeholder analysis [Electronic version]. *Business Ethics Quarterly* 1(1), 53–74, Retrieved from <http://www53.homepage.villanova.edu/james.borden/vsb1001/Goodpaster.pdf>
- [9] Millon, D. (2012). Enlightened shareholder value, social responsibility and the redefinition of corporate purpose without law. In P. M. Vasudev & S. Watson (Eds.), *Corporate governance after the financial crisis* (pp.68-100). Cheltenham, United Kingdom; Edward Elger Publishing Limited
- [10] Minoja, M. (2012). Stakeholder management theory, firm strategy, and ambidexterity [Electronic version]. *Journal of Business Ethics*, 109, 67–82 doi 10.1007/s10551-012-1380-9
- [11] Ribstein, L. E. (2002) Market vs. regulatory responses to corporate fraud: A critique of the Sarbanes-Oxley Act of 2002 [Electronic version]. *Illinois Law and Economics Working Paper Series*
- [12] Rotman, L. I. (2012). Re-evaluating the basis of corporate governance in the post, post-Enron era. In P. M. Vasudev & S. Watson (Eds.), *Corporate governance after the financial crisis* (pp.101-119). Cheltenham, United Kingdom; Edward Elger Publishing Limited
- [13] Speckbacher, G. & Wentges, P. (2009, April). A note on stakeholder theory and risk: Implications for corporate cash holdings and dividend policy [Electronic version]. *Frontiers in Finance and Economics*, 6(1), 51-72.
- [14] Spitzack, H. & Hansen, E. G. (2010). Stakeholder governance: How stakeholders influence corporate decision making [Electronic version]. *Corporate Governance*, 10(4), 378 - 391.
- [15] Vasudev, P. M. (2012). Corporate stakeholders in New Zealand – the present, and possibilities for the future. In P. M. Vasudev & S. Watson (Eds.), *Corporate governance after the financial crisis* (pp.120-144). Cheltenham, United Kingdom; Edward Elger Publishing Limited

Note: Contact author for the full list of references.

End Notes

**International Trade and Entrepreneurship – Why Germany is so overwhelming among
EU-27-countries?**

*Arto Lahti, arto.lahti@aalto.fi
Aalto School of Business (Finland)*

International Trade and Entrepreneurship – Why Germany is so overwhelming among EU-27-countries?

Abstract

Clustered Multinational Corporations (MNCs) own elements of trustified capitalism in terms of Joseph Schumpeter. MNCs invest heavily in global R&D and marketing, and they signal market power in the markets and countervailing power in politics as John Kenneth Galbraith noticed. Because MNCs dominate the global commodity markets, they can collectively determine the rules of the game in the global economic evolution or revolution. The dilemma in most EU-27-countries is that they have not been able to develop their own management doctrines. They apply the U.S. Harvard-Chicago Industrial Organization (IO) model without critics. The most influential writer has been Michael Porter. His models of competitive strategy or national diamonds, clusters are far too trivial to be applicable in EU-27-countries that have a long history as the civilized nations compared with the U.S. Germany is an exception. Germany and the German speaking Europe has their own management doctrine initiated by Friedrich List and modified by Joseph Schumpeter. List argued that economic policy had to be adapted to the needs of specific nations to create the National System of Innovation for Germany. Schumpeter gave micro level advices of economic incentives for entrepreneurs. The third economic miracle (Wirtschaftswunder) in Germany since 1990s is a combination of List's and Schumpeter's thinking. Germany's global success recipe is more useful for EU-27-countries than Harvard-Chicago IO model.

Keywords: Entrepreneurship, Multinational Corporations (MNCs), Innovation, International Trade, Hidden Champions (HCs)

Introduction

The key concept propagating openness in international trade is comparative advantage (Ricardo, 1817), which can be found in the accumulation of the factors, where the nation has the most favourable comparative costs. Since the mid 1990s, when the WTO was established, the industrialized countries oriented towards absolute advantage (Smith, 1776). An indicator of that is the rapid adoption of Porter's (1990) cluster model in the EU countries. The term diamond refers to that fact that the home country of the cluster is permanent. Porter's cluster hypothesis is not unique. Regional agglomeration is the central topics in the New Economic Geography (Krugman, 1991). Porter believes that localization economies, not urbanization economies, draw on information flows. Being near competitors suppliers, a firm enhances its knowledge of industry operations.

Porter's approach for clustering is relevant to the U.S. in which most companies are domestic-market-oriented. German companies are international. Transnationality Index (share of foreign operations in sales, personnel and assets) is for ABB and Linde over 85% and for famous U.S. companies much lower: General Electric 52% or General Motors 48%. In the U.S. only some SMEs are internationalized, e.g. Gibson Guitars and Harley Davidson (Schuman and Himmelreich, 2011). In Germany there are about 340.000 international SMEs (Mittelstand) and about 100.000 of them have FDI-operations (Venohr and Meyer, 2007). They are architects of German regional clusters by bottom-up-approach. Even Canada is far more international than the U.S. (Rugman, 1991). Canadian companies are integrated with the U.S. and, the home-market-based clustering is not valid.

Clusters are far from being permanent. Substituting labor with capital and technology, along with shifting production to lower-cost regions has resulted in waves of firm downsizing throughout the EU and the US. The impact of relocation of industrial activities out of the home-base is called Wintelism (Hart & Kim, 2002). The critical skills of industrial districts (Marshall, 1920) become commodities, and multinational corporations (MNCs) relocate their production units globally. Germany is an exception among the EU countries. Germany's national system of innovation is a major competitive advantage. The geographical proximity seems to matter in 16 Länder. The Chinese "Dragon" and the Indian "Tiger" are crossing many EU-companies except German ones. Vehicles, machines, electronic devices and chemicals account for more than half of Germany's exports. Germany is dependent on import energy. Germany's trade balance is negative with oil and gas importers. Holland is the petroleum center of Europe. The former East

Europe is important for Germany as a part of subcontracting systems e.g. in the auto industry. Germany has about 100 billion export surplus with ten biggest trade partners that are the most serious competitors in international trade (Table 1). Germany has succeeded to win its best or worst competitors. This is a convincing evidence of the export power of Germany as the most diversified economy in the world. Germany is competing with top product quality and process efficiency, e.g. the high energy efficiency of industrial firms and traffic infrastructure. In relation to high efficiency German labor costs are low although German competitiveness cannot be identified in low wages. Hans-Werner Sinn is deeply concerned by the inability and unwillingness of most politicians to look at basic economic issues, face up to economic realities and translate them into the right policies (Sinn, 2012). Germany is highly dependent on the EU economy. The growing performance gap between Germany and big EU-countries, such as France and Italy e.g. in the car industry might have political consequences and even jeopardize the future of the European integration.

TABLE 1: GERMANY'S EXPORTS AND IMPORTS IN 2012 (BILLION EUROS) AND TRADE BALANCE.

Source: https://www.destatis.de/EN/FactsFigures/NationalEconomyEnvironment/ForeignTrade/TradingPartners/Tables/OrderRankGermanyTradingPartners.pdf?__blob=publicationFile

Country	Exports	Imports	
1. France	104	86	+18
2. U.S.	86	50	+36
3. UK	72	48	+24
4. Holland	70	77	-7
5. China	66	64	+2
6. Austria	57	42	+15
7. Italy	55	43	+12
8. Switzerland	48	38	+10
9. Belgium	44	37	+7
10. Poland	42	33	+9
11. Russia	38	37	+1
12. Czech republic	31	33	-2
13. Spain	31	26	+5
14. Sweden	21	21	0
15. Turkey	20	12	+8
16. Japan	17	22	-5
17. Hungary	16	18	-2
18. Denmark	15	12	+3
19. Korea	11	9	+2
20. Brazil	11	10	+1
German total	1.097	909	188

In WTO Doha trade negotiations Germany has been actively working for eliminations of non-tariff barriers that mean 5-10% extra costs (relation to the trade value) for partners of international trade¹. Germany is not yet a fully open global player. Germany has still its "protected islands" e.g. in the banking and finance sector. Germany promotes sustainable development, healthcare and consumer protection. Germany's competitive edges are openness, predictability, and fair legislation. Germany pushes forward trade negotiations between the EU and Asian and South American nations to make market entries for companies easier. Over 5,000 foreign companies operate in Germany and employ over 3 million persons. In 2007-2011 there were 3.535 FDI-projects by 3,000 foreign companies in

¹<http://www.bmwi.de/DE/Themen/Aussenwirtschaft/handelspolitik-eu-wto.html>

Germany. Most of FDI operations established service units, only few production units, in 39 various sectors in Germany².

The German success recipe I – National System of Innovation

Friedrich List (1841) argued that economic policy has to be adapted to the needs of specific nations. He was a member of the German historical school of economics. His main concept is National System. List argued that a nation's true wealth is its productive power, rather than its current exchange values. During his carrier, List advised Germany and the U.S. to develop education, railways and technology. Contrary to Smith (1776), List argued that private economic interests must be subordinated to the strengthening of the nation. List's ideas have been the basis for three economic miracles (Wirtschaftswunder) in Germany: (1) Zollverein 1834–1919, (2) West German from the 1950s to the 1960s and (3) globalization of Germany since 1990s, and for the completion of the vision of European economic integration by Bundeskanzler Konrad Adenauer (1949-1963).

Joseph Schumpeter (Lintunen, 2000) was a well-known member of the German historical school of economics. He modernized List's doctrine as the Harvard professor. He proposed that an entrepreneur, as innovator, creates profit opportunities. An entrepreneurial discovery occurs, when an entrepreneur makes the conjecture that a set of resources is not allocated to its best use. The temporary monopoly profit rewards entrepreneurs on innovations that are the major source of evolution in a whole society. Schumpeter's dynamic view of List's doctrine is based on a good balance between MNCs and innovative companies:

1. Creative destruction is associated with radical or drastic innovations of entrepreneurs entering unexplored market where there are low entry barriers for new entrants utilizing the common pool of knowledge stock. Creative destruction is a microeconomic process by its nature but has macroeconomic implication for economic growth (Agion and Hovitt, 1998).
2. Creative accumulation is associated with institutionalized innovation by MNCs that carry out innovation along established technological trajectories. MNCs dominate R&D investments and commodity markets worldwide, and they impact on industry life cycles and market structures (Scherer, 1999). Kenneth Arrow, the Nobel Prize-winner, claimed that a market leader in oligopoly is not ready to take the risk of radical or drastic innovations (Arrow and Hahn, 1971).

German companies innovate and try to maintain their differentiation positions by customer-orientation. They are highly Schumpeterian of their business thinking. German MNCs will be unique and differentiated to avoid the devastating oligopoly power games. Siemens and Bosch are global market leaders in their niches. In WIPO statistics of 50 biggest PCT-applicants³ there are in 1978-2011 Siemens (19,719 PCT-patents) and Bosch (17,197 PCT-patents) are at the top with Philips (24,966). A strong evidence of Germany's technology excellence is Fraunhofer-Gesellschaft that is the second among science communities after the U.S. University of California (3,555 PCT-patents). German MNCs are internationally oriented – even earlier state-owned companies, e.g. Deutsche Post. They finance their domestic investments by incomes from international operations. As Venohr and Meyer (2007) estimate, there are over 340,000 export companies in Germany is and over 100,000 German companies are active in FDI operations. Germany's National System is not power-oriented as the Harvard-Chicago-IO-model (Scherer and Ross, 1990) widely applied in other EU countries where big companies are stacked in devastating domestic oligopoly power games.

Germany consists of 16 Laender that are independent states although their historical status varies as the current economic performance (Table 2). Three of states are “free” (Freistaat): Bayern (since 1919), Sachsen (1990) and Thüringen (1994). Two are city-based states (Stadtstaat) and “free” (Freie und Hansestadt): Hamburg (1806) and

² http://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation.pdf/

³The Patent Cooperation Treaty PTC) signed in 1970, provides a unified procedure for filing patent applications to protect inventions in each of its contracting states. In 2008, there were 139 contracting states to the PCT that constitute the International Patent Cooperation Union.

http://www.wipo.int/export/sites/www/freepublications/en/patents/901/wipo_pub_901_2012.pdf

Bremen (1806). Laender have their own legislation, constitution, parliament and government. At the federation level Laender use their constitutional power in parliament (Bundesrat) in which the voting power is related to the number of people. History matters! Differences in economic performance between regional states are major. Germany's successful reunification has reduced differences. Germany has still its core states, e.g. Bayern, and its periphery, the earlier East Germany. The Harvard's top-down methodology (Scherer and Ross, 1990, 5) is too static although widely used. The Schumpeterian methodology is compatible with the dynamic nature of German historical school of economics.

TABLE 2: GNP (NOMINAL, BILLION EUROS) IN 2011/ 2012
Source: http://www.statistik-portal.de/statistik-portal/en/en_jb27_jahrtab65.asp

Laender	GNP 2011	GNP 2012	Change %
Baden-Württemberg	382	389	1,7
Beyern	456	465	2,0
Berlin	101	103	2,4
Brandenburg	56	57	2,3
Bremen	26	27	2,7
Hamburg	93	95	2,5
Hessen	226	229	1,5
Mecklenburg-Vorpommern	35	36	3,9
Niedersachsen	224	230	2,5
Nordrhein-Westfalen	572	582	1,7
Rheinland-Pfalz	114	117	2,3
Saarland	31	31	0,6
Sachsen	95	96	1,2
Sachsen-Anhalt	51	52	2,6
Schleswig-Holstein	75	77	2,5
Thüringen	48	49	1,4
Germany	2.592	2.643	1,9

Germany's economic geography is based on urbanization economies that Porter excludes of diamonds. Inside and between regional states there are urban networks of small cities/ towns that constitute unique metropolises. In Germany there are only 14 cities with over 500,000 inhabitants, and only one mega-sized metropolis (over 10 million inhabitants): Rein-Ruhr metropolis-region (biggest cities Köln, Düsseldorf, Essen and Dortmund), 9 medium-sized metropolis-regions, and 4 million-cities: Berlin, Hamburg, München and Köln. These diversified metropolis-regions are the economic engine of Germany's third economic miracle (Wirtschaftwunder). Germany (Reichskirche) was one of the most civilized nations already in the 800s when the U.S. or America was populated by wild Indian tribes. Germany's identity cannot be captures by trivial top-down clustering of companies and other economic actors.

TABLE 3: GERMAN CITIES AND THEIR ECONOMIC REGIONS (AGGLOMERATION) AND METROPOLIS-REGIONS
Source: <http://de.wikipedia.org/wiki/Deutschland>

City	City 2010	Aggl. 2012	Metrop.
(1) Köln	1,02	1,90	11,69
(1) Düsseldorf	0,59	1,22	11,69
(1) Dortmund	0,58	4,70	11,69

City	City 2010	Aggl. 2012	Metrop.
(1) Essen	0,57	4,70	11,69
(2) Berlin	3,51	4,30	5,95
(3) Frankfurt am Main	0,70	1,93	5,52
(4) Stuttgart	0,60	1,80	5,29
(5) München	1,38	2,00	5,20
(6) Hamburg	1,80	2,60	4,27
(7) Hannover	0,53	1,13	3,88
(8) Nürnberg	0,51	1,20	3,50
(9) Bremen	0,55	0,85	2,73
(10) Leipzig	0,53	1,21	2,40
(10) Dresden	0,53	0,75	2,40

Kenichi Ohmae (1995, 1996) predicted that the collapse of nation states is to be expected. Region states with sound socio-cultural structure are the winners of regional agglomeration. Region states constitute fertile ground for stimulating innovations and competitiveness of existing firms, encourage entrepreneurship and attract inward investments. Economic activities are concentrated geographically. Most people in core countries, and a growing number in periphery countries, live in large, densely populated metropolitans. Ohmae refers to his home country, Japan, where the Tokyo metropolitan, a region state, totally dominates the Japanese global business. Metropolis-regions in Germany are exiting or emergent winners as region states. John Dunning (1993, 1997) has proposed that the domestic influences on the diamond should be considered as a specific case of the global influences.

In Germany there are 140 universities of which 11 have been named Elite-Universitäten⁴. The EU Commission has selected 10 top universities; 4 of them are in Germany. German universities have a glorious history of genius scientists. 34 Nobel-prize winners are related to Ludwig-Maximilians-Universität, München: e.g. Wilhelm Röntgen (physics, 1901), Max Planck (physics, 1918), Werner Heisenberg (physics, 1932), and Otto Hahn (chemistry, 1944); and 29 to Humboldt-Universität, Berlin: e.g. Albert Einstein (physics, 1921) and Max Planck (physics, 1918). Germany has 2.4 million students (42% universities)⁵. Germany has a well-organized exchange of students: 115,000 German are studying abroad and 264,000 foreign students in Germany. 31% of German students have as their area of specialization mathematics, computer science, engineering, etc.⁶ In 2012 R&D-investments were 1,469 billion dollar worldwide⁷. Germany dominates the EU with 91 billion dollar (26% of EU). Research-intensive industries accounted for 12.4% of gross value added in Germany (high-tech 9.5%; cutting-edge technology 2.9%. Germany is the number one worldwide⁸. Germany focuses 15 top clusters (Spitzencluster)⁹ and 12 core technologies (Schlüsseltechnologien)¹⁰:

1. Biotechnologies (Biotechnologie)

⁴HU Berlin, University of Bremen, University of Cologne, TU Dresden, University of Tübingen, RWTH Aachen, FU Berlin, Heidelberg University, University of Konstanz, LMU Munich ja Technical University of Munich.

⁵<http://www.guardian.co.uk/world/interactive/2012/may/31/european-students-statistics-interactive>

⁶<https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/BildungForschungKultur/Bildungsstand/Aktuell.html>

⁷Battelle, R&D Magazine

http://www.rdmag.com/sites/rdmag.com/files/GFF2013Final2013_reduced.pdf

⁸ http://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Brochures/Germany/economic-overview-germany-market-productivity-innovation.pdf/ High Innovation Rate

⁹<http://www.bmbf.de/press/3239.php>

¹⁰<http://www.hightech-strategie.de/de/92.php>

2. Service business (Dienstleistungswirtschaft)
3. Automotive and traffic (Fahrzeug- und Verkehrstechnologien).
4. ICT (Informations- und Kommunikationstechnologien, IKT)
5. Aviation technologies (Luftfahrttechnologien)
6. Maritime technologies (Maritime Technologien)
7. Microsystem technics (Mikrosystemtechnik)
8. Nanotechnologies (Nanotechnologien)
9. Photonics/ Optics (Photonik/ Optische Technologien)
10. Production technologies (Produktionstechnologien)
11. Space technologies (Raumfahrttechnologien)
12. Material technologies (Werkstofftechnologien)

The German success recipe II – Realistic view of global competition

Thanks to Schumpeter and his followers, Germany is at least one step ahead other EU countries in competition policies. Schumpeter was well aware of the monopolistic power of big firms. Schumpeter (1942) made his famous prediction of the transition from competitive capitalism to trustified capitalism. Schumpeter shared Marx's conclusion that capitalism will collapse, although from various reasons. Schumpeter predicted that the success of capitalism will lead to a form of corporatism and to fostering of values that are hostile to entrepreneurship, especially among intellectuals. John Galbraith (1956) shared the same views. His countervailing power concept, the collusion between large firms and the government, is a parallel concept to Schumpeter's trustified capitalism. Like Schumpeter Galbraith found that the static economic efficiency was a barrier to innovate, because only through the accumulation of monopoly profits could innovations be financed.

In his life's work, Schumpeter not only recognized the need for a theory of economic development, but also came to understand that such a theory would have to deal with the impacts of transition from individual to collective entrepreneurship in the process of technological change (Lazonick, 1991). Although economists would agree with the judgment that an entrepreneur is a central figure in economics, Schumpeter's writings were, at least temporarily, ignored by many brilliant Nobel prize-winners, economists like John Maynard Keynes, Wassily Leontief, Milton Friedman and Paul Samuelson that represent the British-American Economic School. The ignorance for Schumpeter's writings is the major reason why the British-American Economic School, the dominant doctrine of neoclassical economics, has been and still is separate with the German Historical School.

Schumpeter introduced the concept of temporary monopoly profit as the lifeblood of innovativeness. There was another professor, Edward Chamberlin (1933), who also opposed the neoclassical Walras-Marshall price theory that solely relied on two theoretical models of competition (perfect competition and monopoly) and excluded the reality of imperfect, monopolistic competition. Chamberlin contributed the concept of differentiation that is a parallel concept of Schumpeter's concept of innovation. Chamberlin's work can be considered revolutionary, in the sense that he conceptualizes a market structure characterized by both competitive and monopoly elements, and that is the point that makes his work so important to the modern microeconomic theory. Differentiation through innovativeness (economies of scope) is an entrepreneur's best strategy in competition against the market power of multinationals (economies of scale). A modern interpretation of Chamberlin's analysis of competitive models can be summarized in figure 1.

Chamberlin's major target was to modernize the neoclassical theory. Schumpeter shared the same interest. Both failed in that. However, they have laid down a more realistic approach to study oligopoly which is the dominant type of competitive relations. Most of the leading schools of economics have their focus on the industrial organization economics (IO) that is built on Chamberlin's model of oligopoly market(s) with relatively permanent market structure (Bain, 1956). In the global markets, the offerings of firms are heterogeneous and differentiated. The two of competitive models that are practical are:

1. Heterogeneous oligopoly is the core area of Harvard-Chicago industrial organization (IO) doctrine. IO-doctrine is the theoretical construction on which extensions of managerial economics are built and later, strategic management doctrine. Oligopoly, as Chamberlin interprets it, is accountable to the mutual dependences between few competitors that are positioned in the same industry or markets.
2. Monopolistic competition is the core content of the marketing doctrine. When the number of competitors is sufficiently large, the mutual dependences of competitors are relaxed and the marketing tools, like advertising and selling, are important to differentiate a firm's offerings from market average offerings. However, because the number of competitors is large, monopolistic competition embodies elements of perfect competition in addition to monopoly. But as long as a firm can maintain its differentiation strategy, features of monopoly are dominating, since for differentiated products the demand curve is negatively sloped.

The dilemma of most EU-27-countries is that they have not been able to develop their own management doctrines. They apply the U.S. model Industrial Organization (IO) without critics. During the 1980s, the most influential book was undoubtedly Michael Porter's (1980) Competitive Strategy. In a remarkably short time, Porter's writings on mobility barriers or generic strategies became broadly used in teaching, consultation, and research projects. Indeed, Porter moved economics closer to the strategic management and is the author of influence in the topic as the huge number of citation reveals. Porter's model in figure 3 that divides a company's market scope in two ones: industry wide and particular segment only. Anyone who has read Porter's dissertation (Porter, 1973) could recognize that this is the same division into big (industry wide) and small (particular segment only) companies.

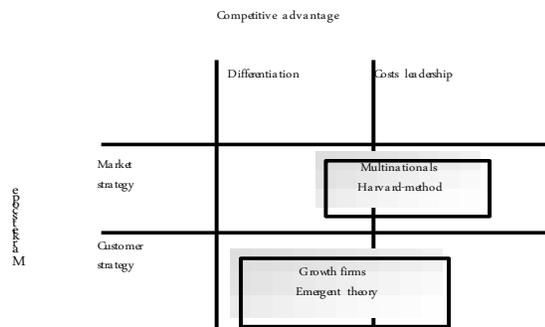


FIGURE 3: A REINTERPRETATION OF PORTERS GENERIC STRATEGIES

Porter relies on abstract oligopoly model. He is not willing to accept the fact that his generic are not theoretical but empirical. Oligopoly is accountable to the mutual dependences between few MNCs that are positioned in the same market and try to dominate markets by internalizing them. MNCs take advantage of homogenous segments in global markets. Serving these segments with standardized products offers economies of scale for MNCs. Aggregated preferences for certain product can emerge simultaneously worldwide which provides huge prospects for certain commodities (e.g. Nokia's mobile phones in the 90s). Germany has a large population of MNCs of which many are

market leader in their segments, e.g. Volkswagen. German MNCs have the well-trained management teams who are able to win by their global market strategies.

Hidden Champions has applied to conquer global markets as Hermann Simon describes in his excellent book (Simon 2009). Hidden Champions are best in the world in monopolistic competition. They have collectively constructed the emergent growth theory for highly innovative and customer-oriented companies. The empirical facts are unbelievable. Venohr (2010) has estimated that there are in German 1500 companies that are world-market leaders (among three best) in their own segments. About 1350 of them are Hidden Champions (HD). About 90% of HD companies act in B2B-markets and the most important industry group is the Machinery & Equipment industry.

HD companies have a unique idea for market definition. They prefer to specialize in globally heterogeneous and marginal market segments that multinationals use to avoid because of low growth prospects and high customer-specific transaction costs. One of the major reasons is that NMCs, through strategic entries, build-up overseas capacities in order to stop potential rivals from entering the most potential market segments. NMCs attempt to establish market power through strategic alliances, joint ventures and collaboration over R&D and make portfolio investments abroad to increase and obtain control of critical resources (Cross, 2000). HD companies have succeeded to win by complementary business strategies and, thereby avoided the competitive power of NMCs. In 1994-2004 HD companies succeeded to grow by 8.4% when German DAX companies (NMCs) grew by 4.9% (Venohr and Meyer, (2009). There are about 2710 HD companies worldwide and about one half of them in Germany¹¹.

The German management method is based on training inside companies. Therefore, German managers know their companies in-depth. The German apprentice education system is certainly the best in world to train humble managers who are really interested to serve their customers worldwide.¹² Strategic marketing emphasizes that strategy development needs to be externally oriented, towards customers, competitors and markets. David Ricardo's comparative advantage concept highlights the important differences between country-specific resources and firm-specific resources. Germany is the best home market for B2B products and services. Service business has been growing 1.428% (Table 4) during the two decades of globalization in 1990-2011. Germany is the third in service exports after the U.S. and the UK. German B2B export companies are mainly providing integrated B2B services to their global customers. Germany is certainly much bigger service exporter than to official WTO statistics demonstrate, perhaps the number one as global service exporter.

TABLE 4: SERVICE EXPORTS IN 1990-2011 (BILLION DOLLARS) AND THE GROWTH RATES

Source: wto secretariat http://www.wto.org/english/news_e/pres13_e/pr688_e.htm

Country	1990	2011	
U.S.	45	581	1.291
UK	25	274	1.096
Germany	21	253	1.204
China	1	182	18.200
France	30	167	556
Japan	20	142	710
Spain	-	140	140
India	2	137	6.850
Holland	-	134	134
Singapore	-	129	129
World	292	4170	1.428

¹¹DZ Bank Group, Confidence in the German Mittelstand, page 14.
www.geschaeftsbericht.dzbank.de/.../DZBANK_Group

¹² German Mittelstand: Engine of the German economy, sivu 5. www.bmwi.de/.../factbook-german-mittelstand,propert...

The customer-focused marketing concepts, such as segmentation, positioning and the product-life cycle, have also influenced thinking in strategic management (Day, 1992, 1993). Product/brand positioning is a core strategic marketing activity and firms can seek to adopt a number of distinct positions in the marketplace. These may involve positions based on price, premium quality, superior service and innovativeness. The major paradox is that Porter's generic strategies dominate the SMEs literature in most of EU-27-countries when German Mittelstand/ HD companies are utilizing German doctrine of strategic marketing. A good summary of key points is given by Simon (1996, 2009) and Venohr and Meyerr (2007, 2009):

1. They strive for market leadership worldwide in their markets/ segments.
2. Market definition (Abell, 1980) is narrow from customer and technology perspectives
3. They serve the target markets through their own subsidiaries and do not delegate the customer relationship to third parties.
4. They close to their customers in particular to their top customers. They are value, not price oriented.
5. They are innovative in both products and processes. Innovation activities are globally oriented and continuous.
6. The overall company orientation is technology and market driven.
7. They are close to their top competitors and defend their position actively. Competitive advantages are product quality and services.
8. They rely on their own strengths. They mistrust strategic alliances and outsourcing. They see the foundation of their competitive superiority in things which only they can do.
9. They have strong corporate cultures associated with excellent employee identification and motivation. Selection for jobs is sharp.
10. Their leaders are strong and stay at the helm for decades.

George Day (1990) argues that winners (1) are guided by a strategic vision and (2) responsive to markets and customers. This is the method that German HD companies have developed during two past decades. Following their integrating model of marketing HD companies develop their own resource configuration models that are oriented toward customer needs and wants. The key issue is the humble choice of markets segments, to make good business of any kind of goods and articles, not to follow trends or hit lists. Product differentiation is the key of German businesses. It means a long run commitment to serve customers and to invent better products for them. So simple to be true! Marketing channel is the third element of German success receipt. German companies prefer to internalize their marketing channels to keep customer secrets in a strict control. So simple to be true! Germany's customer-specific differentiation is not well known since global gurus dominate the English literature and media. The paradox is that German companies have made a better version of the U.S. industrial method that helped the U.S succeed for about hundred years until the 1980s. Alfred Sloan (1963), the famous CEO of GM was one of the first managers that utilized Chamberlin's product differentiation in positioning. Now German companies are in the top positions. HD companies are in the top (figure 4).

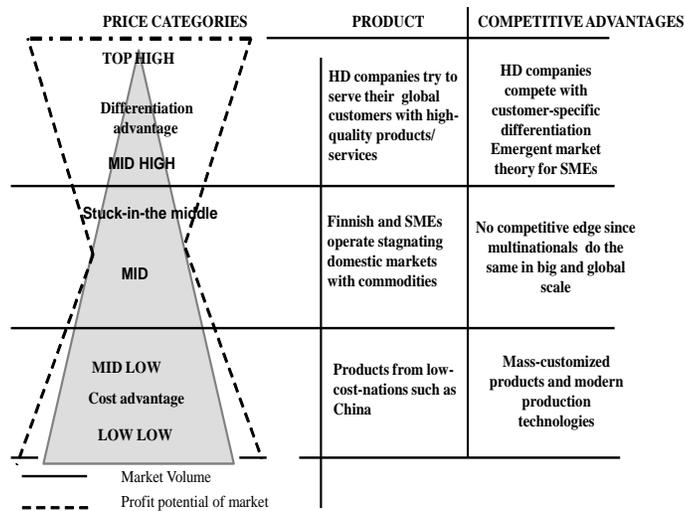


FIGURE 4: THE NORDIC NICHE-STRATEGIES

Conclusion: What is wrong with the EU’s SME policy?

As to SMEs internationalization, Finland is in marginal position as it was during 1970s when I started my carriers as an industrial economist in the Federation of Finnish Technology Industries. Olavi Punakivi is finishing his dissertation about the theme “Investment and profitability of SMEs in Finnish technology Industries”. He has a large data-base of SMEs in technology Industries. The EU Commission (2003/361/EY) defines SMEs so that the main factors determining whether a company is an SME are: number of employees and either turnover or balance sheet total. According to this definition, there are about 23 million SMEs in the EU area and they employ about 100 million persons¹³. In Germany Mittelstand is a broad category of companies including about 99% of 3.7 million companies in Germany, and about 95% Mittelstand-companies are controlled by families¹⁴.

TABLE 5: THE EU COMMISSION (2003/361/EY)SMES DEFINITION
 Source: <http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/>

Company category	Employees	Turnover	or	Balance sheet total
Medium-sized	< 250	≤ € 50 m		≤ € 43 m
Small	< 50	≤ € 10 m		≤ € 10 m
Micro	< 10	≤ € 2 m		≤ € 2 m

Punakivi adapts the German broad definition of Mittelstand so that he has six categories of SMEs (number of persons):

1. Early-stage growth companies (10-19 persons)
2. Mature growth companies (20-49 persons)
3. Small medium-sized companies (50-99 persons)
4. Big medium-sized companies (100–249 persons)

¹³http://circa.europa.eu/irc/opoce/fact_sheets/info/data/policies/smenterprises/article_7312_fi.htm

¹⁴German Mittelstand: Engine of the German economy, sivut 3-5.

5. Internationalizing medium-sized companies (250–499 persons)
6. Globalizing medium-sized companies (500–999 persons).

This kind of definition of SMEs is useful (Figure 5). The six size categories comprise a pattern of growth for SMEs. In the figure there is one indicator of the pattern (Value added per person). As shown in the figure, companies in five categories are about the same level in value added per person. Some of these SMEs are already investing intensively in internationalization. Only one category (Global medium-sized companies, 500–999 persons) had a high return on investment in internationalization as Hidden Champions in Germany.

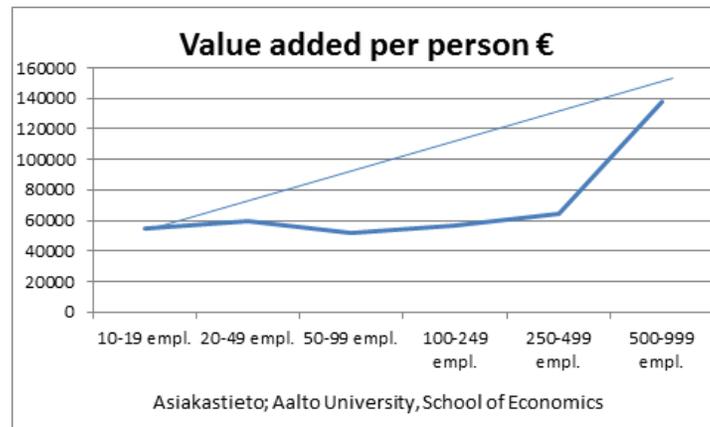


FIGURE 5: VALUE ADDED PER PERSON. SOURCE: OLAVI PUNAKIVI

The EU's SME concept is misleading. It is built on the implicit assumption that small and medium-sized companies are isolated from the global competition. This is not the truth. The German SME concept is not a static one relying solely on company size. Germany SMEs or Mittelstand is globally oriented. They are aware of the fact that when markets are open their only success recipe is to grow quicker than NMCs. During two past decades they have succeeded to do that.

The Harvard-Chicago-IO-doctrine is solely relying on top-down-approach. The European and German bottom-up approach is important to take into account (McGee and Thomas, 1986). This approach is verified in Finland by 4 dissertations: Lahti (1983), Salimäki (2003), Killström (2005), and Luukkainen (2012). Lahti's model of strategy and performance are used as the main framework model (figure 6). Lahti's model links the 'Realized and Intended strategy making' to the 'Firm performance' in the within-industry approach. The learning aspect is essential to innovative growth firms with idiosyncratic resources and continuous performance variations according to the life cycles of innovations (Lawless, Bergh, and Wilsted, 1989). A balance between innovativeness and process efficiency or market efficiency (differentiation) is needed.

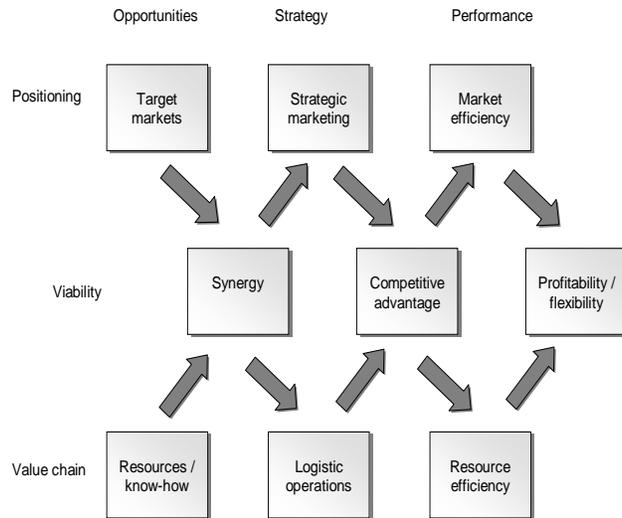


FIGURE 6: LAHTI'S MODEL: STRATEGY-PERFORMANCE MODEL

This model has been widely used in many research projects¹⁵. The model is Schumpeterian in its nature. The starting point of temporary monopoly profits is the 'Opportunities'. The 'Strategy' is Schumpeterian in its nature, since strategy making is targeted to find new business prospect. Temporary monopoly profit, the 'Performance', is the result from the fit with opportunities and strategy. Edith Penrose's (1959) hypothesized the firm's ability to grow depends on the management's learning capacity. Therefore, the "within sector studies" are needed to find out the "Substantive measures of performance", as Pitt and Thomas convince through table 6. Lahti (1983) is one of the first dynamic studies of strategic groups in a whole industry composed of firms with different size (small, medium sized and big) and performance models (high performers/ innovator and low performers/ conservative) (Pitt, and Thomas, 1994, 93). The "across sector studies" have had the major emphasis since they are useful to identify the current and potential clusters according to Porters' (1990) contribution. Although clusters are always useful to know, small and medium sized firms cannot base their strategy making on cluster concept. They need more robust concepts and methods (Lahti, 2010).

TABLE 6: STUDIES TESTING THE ROBUSTNESS OF GROUPINGS

¹⁵ There are about 300 case analyses of growth firms, from Nordic countries, Italy, Benelux-countries, Estland, Italy, Spain, France and Scotland.

Prior classification was via:

	"Substantive" measures of		"Perceptual" measures of	
	Structure / conduct	Performance	Group structures	Patterns of conduct
Within sector studies	Hunt (1972)	Lahti (1983) Johnson and Thomas (1987)	Dess and Davis (1984)	Dess and Davis (1984)
Across-sector studies	Harrigan (1980) Tushman and Anderson (1986)	Porter (1979) Newman (1973) Rumelt (1973) Tushman and Anderson (1986)	Snow and Hrebiniak (1980)	Snow and Hrebiniak (1980)

References

- [1] Abell, D. (1980). *Defining the Business: The Starting Point of Strategic Planning*. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.
- [2] Aghion, Philippe and Howitt, Peter (1998). *On the Macroeconomic Effects of Major Technological Change in General Purpose Technologies and Economic Growth*, edited by Elhanan Helpman, MIT Press, Cambridge, MA.
- [3] Arrow, Kenneth and Hahn, Frank (1971). *General Competitive Analysis*, Holden-Day, San Francisco.
- [4] Bain, Joe (1956). *Barriers to Competition*, Harvard University Press, Cambridge.
- [5] Cross, Adam (2000). *Modes of Internationalization*, in *International Business, Theories, Policies and Practices*, Ed. Tayeb, Monir, Harlow, Pearson Education.
- [6] Chamberlin, Edward (1933). *The Theory of Monopolistic Competition*, Harvard University Press, Cambridge.
- [7] Day, George (1990). *Market-Driven Strategy: Processes for Creating Value*, The Free Press, New York.
- [8] Day, George (1992). Marketing's contribution to the strategy dialogue, *Journal of the Academy of Marketing Science* 10 (May) 323-329.
- [9] Day, George (1994). The capabilities of market-driven organizations, *Journal of Marketing* 58 (October) 37-52.
- [10] Dunning, John (1993). Internationalizing Porter's diamond, *Management International Review*, Vol. 33, 7-15.
- [11] Dunning, John (eds.) (1997). *Governments, Globalization, and International Business*, Oxford University Press, Oxford.
- [12] Galbraith, John Kenneth (1956). *American Capitalism: The Concept of Countervailing Power*, Houghton Mifflin, Boston.
- [13] Hart, Jeffrey. A. and Kim, Sangbae (2002). Explaining the Resurgence of U.S. Competitiveness: The Rise of Wintelism, *The Information Society*, 18, 1-12
- [14] Killström, Pekka (2005). *Strategic Groups and Performance of a Firm. Towards a New Competitive Environment in the Finnish telecommunication industry*, (dissertation), Helsinki School of Economics, A-248, Helsinki
- [15] Krugman, Paul (1991). *Geography and Trade*, Cambridge, MIT Press, Cambridge, MA.

“Contact author for the list of references”

End Notes

Founding Family CEO Pay Incentives and Investment Policy: Evidence from a Structural Model

*Mieszko Mazur, m.mazur@ieseg.fr
IESEG School of Management, France*

*Betty H.T. Wu, Betty.Wu@glasgow.ac.uk
University of Glasgow Adam Smith Business School, United Kingdom*

Founding Family CEO Pay Incentives and Investment Policy: Evidence from a Structural Model

Abstract

This paper examines how CEO compensation influences the relation between family involvement and corporate investment policy in a structural framework. Our study focuses on one pay incentive, option portfolio volatility sensitivity vega. Consistent with the risk aversion hypothesis, we find that vega is lowest in active family firms, which allocate less capital to R&D projects. In contrast, pay incentives and families are not associated with capital expenditures. Vega increases M&A activities which are not affected by family presence. Interestingly, despite family preferences for lower firm risk, active family firms diversify less than firms run by outsiders. Overall, our empirical results suggest that CEO pay incentives induce investment policy contingent on firm risk. CEO incentive pay in family firms manifests the risk aversion preference. Nonetheless, after replacing family CEOs with outside professionals, investments in risky R&D projects increase, consistent with the horizon hypothesis.

1. Introduction

It has been well-established that two types of agency costs exist in modern corporations. Firstly, one type of agency problem, prevalent in closely held firms, lies in the conflicts of interests between large owners and minority shareholders. Prior research notes that large and undiversified shareholders might adopt investment policy based on their own risk preferences and/or their own investment horizons rather than those preferred by other well-diversified shareholders (e.g., Fama and Jensen, 1985; Shleifer and Vishny, 1986; Gompers and Lerner, 2000). Alternatively, some academic scholars argue that blockholders can mitigate managerial incentives to adopt myopic investments (e.g., Edmans, 2009). Anderson et al. (2012a) study the relation between family ownership and investment policy from the perspective of different preferences between family and nonfamily shareholders. They find that family firms devote less capital to long-term investments and that market seemingly discounts below-industry investment levels. They argue that their empirical evidence indicates that family firms affect corporate investment policy by their preferences for lower risk rather than efficient monitoring or longer horizon.

The other type of agency problem, prominent in a diffusely held firm, arises due to the conflicts of interests between managers and shareholders (Jensen and Meckling, 1976; Fama and Jensen, 1983). To alleviate such “classic owner-manager conflict” (Villalonga and Amit, 2006), firms should adopt incentive compensation systems that make managerial wealth sensitive to both risk and performance (Jensen and Meckling, 1976; Guay, 1999). Two pay incentives, delta (i.e., option portfolio price sensitivity which motivates managerial effort) and vega (i.e., option portfolio volatility sensitivity which induces risk-taking behavior), are expected to affect investment policy that impacts firm risk and performance as a result. Extant literature shows that, on the one hand, delta may induce CEOs to make positive net present value (NPV) investment choices despite its implications on risk-taking is ambiguous theoretically and empirically (e.g., Hagendorff and Vallascas, 2011). On the other hand, vega may make risky investments more tolerable to risk averse CEOs so that they are more willing to undertake risky projects (Coles et al., 2006; Hagendorff and Vallascas, 2011). Cadenillas et al. (2004) present a model showing that higher managerial effort and project risk are associated with higher firm value.

Granted, agency problems intertwine, such that family firms are not entirely free of owner-manager conflicts, and diffusely held firms are not entirely free of the expropriation by large shareholders. Investment decisions, essential for firm performance, are subject to both types of agency problems. In this paper, we examine how families influence corporate investment policy through the incentives provided by CEO compensation in a structural model framework. We focus on four types of corporate investments including capital expenditures, research and development (R&D), mergers and acquisitions (M&A) and corporate segments, which reflect varying degrees of riskiness and different value-enhancing sources (e.g., Coles et al., 2006; Hagendorff and Vallascas, 2011, Kothari et al., 2002). We adopt a structural framework for analysis because it enables broad data-analytic modelling that could evaluate multi-equations and address

some endogeneity issues better. Lastly, unlike the two-type categorization commonly adopted in the literature, similar to e.g., Villalonga and Amit (2006) and using hand- collected data, we classify our sample firms into active family firms (run by family member CEO), passive family firms (run by outside CEO), and non family firms.

The remainder of this paper proceeds as follows: Section 2 describes our main testing hypotheses. Section 3 describes the data collection and sample formation. Section 4 illustrates the model specifications. Section 5 shows our empirical results. Section 6 summaries the findings and concludes.

2. Hypotheses

Anderson et al. (2012a) argue that risk aversion and extended investment horizons of families lead to differences in investment policy between family and nonfamily firms. Risk aversion of families potentially results in fewer risky projects due to substantial and undiversified ownership. Nevertheless, their long-term commitment likely mitigates this risk aversion and allocates capital to investments with long-term horizons. Furthermore, the informational advantage in monitoring of families helps alleviate risk aversion derived from the opaque nature of R&D process (Anderson and Reeb, 2003b). Therefore, both long-term investment horizon and efficient monitoring arguments indicate an opposing effect of family firms on risky projects. Their empirical results show that family firms invest less in risky investments, which suggests that risk aversion is the dominant effect. Based on the risk aversion hypothesis and given that vega induces risk-taking, we hypothesize that CEO pay in active family firms is associated with a lower degree of vega. In addition, CEO pay in passive family firms has higher vega because family ownership in such firms is typically lower than active family firms, and thus we expect the horizon and monitoring arguments to dominate. Since the effect of delta on risk-taking is ambiguous, we use it as a control variable in our analysis. Note that delta in active family firms is expected to be highest because of the significant equity-based holdings.

3. Data and Sample

Our sample construction starts with companies in the S&P600 SmallCap Index between 2001 and 2005. We study small firms because small firms have less aggregation bias, i.e., the aggregation of asynchronous actions across business units can smooth firm-level investment (Whited, 2006). Moreover, according to the 2009 OECD report, Small and median-sized enterprises account for more than 99% of all enterprises in the European Union, and more than half of labor force in the private sector in the OECD area. Other than their economic significance, family influence is more prominent and effective in small firms compared with their more established counterparts. We exclude non-surviving firms during this period, firms in the utility and finance industry, and spin-off firms. To identify family firms, following Anderson and Reeb (2003) and Villalonga and Amit (2006), we manually check the proxy statements and other sources. We form a dataset on identity, ownership, tenure, and biographies of founder(s), board members, blockholders, and the top 5 managers. Because the vast majority of the families identified in our sample are in fact founding families, we focus on founding family and thus family refers to founding family in the remainder of the paper. We match our sample with available accounting data, CEO compensation, and governance characteristics. In the end, we have 1,756 firm-year observations that correspond to 362 unique firms. Table 1 describes the variable definition and data source used in this paper.

TABLE 1: VARIABLE DEFINITION (ALPHABETICALLY)

Variable	Definition	Data Source
Asset tangibility ratio	Total property, plant and equipment scaled by total assets	Compustat item <i>ppent/at</i>
Board Size	Number of directors on the board	RiskMetrics Directors Directors Legacy

Capital expenditure/total assets	Capital expenditures scaled by total assets	Compustat items <i>capx/at</i>
Cash ratio	Cash scaled by total assets	Compustat item <i>ch/at</i>
CEO duality	Binary variable that equals one when the CEO serves as company chairman	ExecuComp item <i>titleann</i>
Delta	The change in the value of the CEO's stock holding and option portfolio in response to a 1% change in the firm's stock price	Following Core and Guay (2002) and Brockman et al. (2010)
Dividend ratio	Firm's annual cash dividends scaled by total assets	Compustat item <i>dv/at</i>
Entrenchment index	Follows Bebchuk, Cohen, and Ferrell (2004)	RiskMetrics Governance Legacy items <i>cboard+supermajor+ppill+goldenparachute+lachtr+labylw</i>
Executive age	Age of the CEO	ExecuComp item <i>age</i>
Firm age	Difference between the founding year and the data year	Online sources (e.g., www.funduniverse.com)
Firm risk	Standard deviation volatility over the past 60 months	Compustat item <i>bs_volatility</i>
GIM index	Follows Gompers, Ishii, and Metrick (2003)	RiskMetrics Governance Legacy item <i>gindex</i>
Leverage ratio	Year-end long-term debt scaled by total assets	Compustat items <i>dltt/at</i>
M&A number	Firm's number of M&A deals	
M&A value ratio	Sum of the M&A deal value scaled by the firm's market value of equity	
Ownership	Percentage of CEO shareholding, including the holdings of family members, if applicable	Proxy statements
R&D expense/total assets	R&D expenditures scaled by total assets	Compustat items <i>xrd/at</i>
Return on assets	A ratio of earnings before interest and tax scaled by total assets	Compustat items <i>ebit/at</i>
Segment HHI	Segment HHI follows the calculation of Herfindahl-Hirschman Index by using the sales of corporate segments as weights	
Segment number	Firm's number of corporate segments	
Share ownership	Percentage of executive shareholding (excluding options)	ExecuComp item <i>shrown_excl_opts</i> scaled by Compustat item <i>shrsout</i>
Tobin's Q	Market-to-book ratio, defined as total assets plus the market value of common stock less the sum of book value of common equity and balance sheet deferred taxes scaled by total assets	Compustat items $(at+csho*(prcc_fbkvlps)-txdb)/at$
Total assets	Year-end book value of total assets	Compustat item <i>at</i>
Total sales	Annual total sales	Compustat item <i>sale</i>
Vega	The change in the value of the CEO's option portfolio in response to a 1% change in stock return volatility	Following Core and Guay (2002) and Brockman et al. (2010)

4. The Model

To estimate the impact that families have on corporate investment decisions through their pay incentives, we deploy a structural equation model (SEM) that encompasses a wide range of models by considering various paths (causality) and correlations between variables, both dependent and independent variables. Therefore, relevant to our purposes, the structural equation modelling, when setup properly, can address endogeneity issues and also give estimates similar to seemingly unrelated regression or simultaneous equation analysis, among other desirable features (Tomarken and Waller, 2005). The path diagram in our structural model is displayed in Fig. 1.

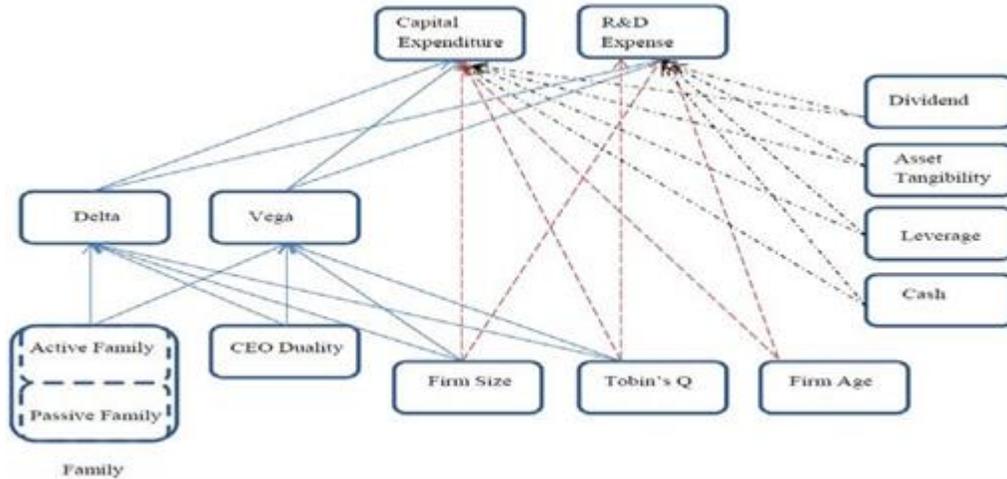


FIGURE 1: SIMPLE ILLUSTRATION OF BASELINE STRUCTURAL EQUATION MODEL

A path is typically shown as an arrow, drawn from one variable to another, and establishes the relation (causality) between these two variables. As shown in Fig. 1, there are four sets of linear regressions in the model. Two are related to investment choices, and in the meantime, two are for the decisions of pay incentives that are allowed to further affect investment choices too. We also specify variables to be correlated (based on the correlations between variables of interest) and include industry and year dummy variables in the two linear regressions of investment choices (not shown in the path diagram for simplification). Standard deviations are clustered on the firm-level.

Specifically, the model specification is as follows,

$$\text{Investment Policy} = \beta_1 * \text{Incentive Pay} + \sum \beta_i (\text{Firm-Specific Control Variables}) \quad (1)$$

$$\text{Incentive Pay} = \gamma_1 * D(\text{Passive Family Firm}) + \gamma_2 * D(\text{Active Family Firm}) + \gamma_3 * \text{CEO Duality} + \sum \gamma_j (\text{Firm-Specific Control Variables}) \quad (2)$$

The indirect effect of family presence on investment policy is $\beta_1 * \gamma_1$ for passive family firms and $\beta_1 * \gamma_2$ for active family firms. Note that, to test our hypothesis properly, family presence impacts investment decisions through pay incentives only. Therefore, the indirect effect of family presence on investment policy is the total effect.

5. Empirical Results

5.1 Primary Results

First of all, we find that 48.46% of the sample observations have family influence within the firm. This is consistent with the notion that family control is common in small firms. On average, CEOs have 18.9%, 3.2% and 4.33% of equity stakes in active, passive and non family firms. As expected, the level of delta is highest for active family CEOs

despite not significantly different between passive and non family firms. As for vega, non family CEOs have highest level. Active and passive family CEOs have similar levels on average despite the median is relatively higher in passive family firms.

After controlling for firm size and growth opportunity, as shown in Table 2, our regression analysis shows that active family firms have lowest level of vega and highest level of delta while the passive and non family firms have similar levels of both measures. Moreover, active family firms commit less capital to R&D expenditures, whereas there is no significant difference in R&D between passive and non family firms after controlling for important firm-specific characteristics such as financial constraints and industry orientation. Family presence and/or CEO pay incentives seem not able to explain capital expenditures, inconsistent with Coles et al. (2006). This might suggest that capital expenditures, although generally viewed as a type of less risky investments, and R&D are not necessarily substitutes. Furthermore, following Anderson et al. (2012a), we conduct similar analysis based on the classification of high and low firm risks. Interestingly, the negative association between active family firms and R&D is driven by high risk firms, and the R&D investment patterns are similar irrespective of family presence in low risk firms. This is consistent with the findings in Anderson et al. (2012a) and their risk aversion hypothesis. Moreover, the negative relation between delta and R&D is driven by high risk firms while the positive relation between vega and R&D is driven by low risk firms. It thus suggests that these incentives seem to induce investments to maintain proper firm risk based on existing firm risk

TABLE 2: FAMILY INFLUENCE, CEO OPTION SENSITIVITIES, AND LONG-TERM INVESTMENTS.

	1		2		3		4		5		6	
					Below median firm risk				Above median firm risk			
	CAPEX	R&D	CAPEX	R&D	CAPEX	R&D	CAPEX	R&D	CAPEX	R&D	CAPEX	R&D
Family	0.001	-0.003**			0.002	-0.002			-0.002	-0.004**		
	(0.56)	(-2.56)			(1.33)	(-1.46)			(-1.29)	(-1.98)		
Active family			0.001	-0.006**			0.004	-0.002			-0.003	-0.007**
			(0.62)	(-2.5)			(1.49)	(-1.14)			(-1.28)	(-1.97)
Passive family			-0.000	-0.000			-0.000	-0.001*			0.000	0.000
			(-0.6)	(-0.69)			(-0.3)	(-1.71)			(0.37)	(0.44)
Ln(1+delta)	0.001	-0.004**	0.001	-0.004**	0.003	-0.001	0.003	-0.001	-0.002	-0.006*	-0.002	-0.006*
	(0.79)	(-2.11)	(0.79)	(-2.11)	(1.55)	(-0.47)	(1.55)	(-0.47)	(-1.21)	(-1.93)	(-1.21)	(-1.93)
Ln(1+vega)	0.000	0.003**	0.000	0.003**	-0.001	0.003**	-0.001	0.003**	0.001	0.001	0.001	0.001
	(0.27)	(2.47)	(0.27)	(2.47)	(-0.46)	(2.03)	(-0.46)	(2.03)	(0.48)	(0.57)	(0.48)	(0.57)
Ln(1+sales)	-0.001	-0.019***	-0.001	-0.019***	-0.003	-0.008**	-0.002	-0.008**	0.000	-0.024***	0.000	-0.024***
	(-0.53)	(-6.21)	(-0.5)	(-6.3)	(-1.01)	(-2.36)	(-0.97)	(-2.37)	(0.06)	(-5.36)	(0.01)	(-5.44)
Tobin's Q	0.007***	0.006**	0.007***	0.006**	0.010***	0.009**	0.010***	0.009**	0.006***	0.005	0.006***	0.005
	(4.71)	(2.16)	(4.74)	(2.13)	(4)	(2.22)	(3.97)	(2.22)	(3.04)	(1.32)	(3.01)	(1.29)
Ln(1+firm age)	-0.005**	-0.006*	-0.005**	-0.006*	-0.002	0.002	-0.002	0.002	-0.011***	-0.001	-0.011***	-0.001
	(-2.09)	(-1.68)	(-2.09)	(-1.68)	(-0.59)	(0.84)	(-0.59)	(0.84)	(-2.96)	(-0.21)	(-2.96)	(-0.21)
Cash ratio	0.002	0.055**	0.002	0.055**	-0.033*	0.013	-0.033*	0.013	0.009	0.040	0.009	0.040
	(0.19)	(2.41)	(0.19)	(2.41)	(-1.72)	(0.45)	(-1.72)	(0.45)	(0.98)	(1.36)	(0.98)	(1.36)
Leverage ratio	-0.028***	-0.001	-0.028***	-0.001	-0.042***	-0.016	-0.042***	-0.016	-0.018*	0.010	-0.018*	0.010

	(-3.32)	(-0.04)	(-3.32)	(-0.04)	(-3.03)	(-1.09)	(-3.03)	(-1.09)	(-1.77)	(0.39)	(-1.77)	(0.39)
Asset tangibility	0.158***	-0.039***	0.158***	-0.039***	0.148***	-0.014*	0.148***	-0.014*	0.145***	-0.056***	0.145***	-0.056***
	(5.97)	(-4.05)	(5.97)	(-4.05)	(5.05)	(-1.87)	(5.05)	(-1.87)	(8.76)	(-2.63)	(8.76)	(-2.63)
Dividend ratio	-0.060	-0.202**	-0.060	-0.202**	-0.108**	-0.127**	-0.108**	-0.127**	0.149	-0.481*	0.149	-0.481*
	(-1.52)	(-2)	(-1.52)	(-2)	(-2.04)	(-2.52)	(-2.04)	(-2.52)	(0.71)	(-1.95)	(0.71)	(-1.95)
CEO duality	0.001	-0.001	0.000	-0.000	0.001	0.000	0.001	0.001	-0.001	-0.003*	-0.001	-0.002
	(0.98)	(-1.2)	(1.08)	(-0.31)	(1.24)	(0.74)	(0.97)	(1.23)	(-1.04)	(-1.7)	(-0.81)	(-1.41)
Equation-level R ²	0.411	0.393	0.411	0.393	0.409	0.281	0.409	0.282	0.510	0.391	0.510	0.391
	Ln(1+delta)	Ln(1+vega)										
Family	0.640***	-0.325***			0.474***	-0.466***			0.680***	-0.191		
	(6.21)	(-2.92)			(3.15)	(-2.98)			(5.85)	(-1.59)		
Active family			1.157***	-0.431***			1.091***	-0.547**			1.130***	-0.262*
			(9.89)	(-2.97)			(5.54)	(-2.35)			(8.87)	(-1.75)
Passive family			-0.069	-0.180			-0.145	-0.384**			-0.070	-0.071
			(-0.63)	(-1.41)			(-0.96)	(-2.23)			(-0.57)	(-0.53)
Ln(1+sales)	0.269***	0.252***	0.312***	0.243***	0.396***	0.373***	0.430***	0.368***	0.225***	0.128**	0.258***	0.123**
	(5.81)	(5.03)	(7.29)	(4.83)	(4.08)	(3.98)	(4.91)	(3.89)	(4.18)	(2.37)	(5.15)	(2.3)
Tobin's Q	0.384***	0.168***	0.403***	0.164***	0.512***	0.270***	0.513***	0.270***	0.357***	0.103**	0.382***	0.099**
	(7.11)	(3.3)	(7.55)	(3.18)	(5.73)	(3.92)	(6.13)	(3.9)	(8.18)	(2.14)	(9.39)	(2.03)
CEO duality	0.517***	0.223**	0.301***	0.267**	0.423***	0.237	0.252*	0.260*	0.614***	0.180	0.358***	0.221*
	(5.28)	(2.11)	(3.4)	(2.5)	(2.94)	(1.61)	(1.94)	(1.78)	(5.51)	(1.59)	(3.59)	(1.95)
Equation-level R ²	0.211	0.063	0.306	0.066	0.186	0.109	0.271	0.110	0.300	0.035	0.418	0.039
Dummies for 1- digit SIC and Year	Yes	Yes	Yes	Yes	Yes	Yes						
Model R ²	0.730	0.764	0.685	0.719	0.793	0.829						
# of obs.	1,756	1,756	839	839	838	838						

With regard to M&A activities, as shown in Table 3 Panel A, on the whole, we find that M&A activities are not affected by family presence. Although the related coefficients are negative, they are not statistically significant. Vega increases both the number as well as the value of M&A deals. Delta seems irrelevant in the decision to make M&A deals. The results regarding incentives are mainly driven by high risk firms, as shown in Models 3-6. For low risk firms, neither family presence nor pay incentives affect M&A activities. Similar to capital expenditures, as shown in Table 3 Panel B, corporate diversification is not affected by family presence and pay incentives as a whole, although active family firms have fewer segments than passive and non family firms. Therefore, this finding suggests that the number of corporate segments is not a proper indicator of riskiness. Having more segments does not necessarily mean to reduce firm risk, at least for families. This might explain that families prefer not to diversify even when facing

higher firm risks. Delta also decreases diversification in high risk firms. For low risk firms, neither family presence nor pay incentives explain either diversification choice. Notice that the relation between family presence and pay incentives remains regardless of firm risks.

TABLE 3: FAMILY INFLUENCE, CEO OPTION SENSITIVITIES, AND OTHER CORPORATE INVESTMENTS

<i>Panel A: M&A activities</i>												
	1		2		3		4		5		6	
					Below median firm risk				Above median firm risk			
	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
Family	-0.005	-0.013			-0.006	-0.006			0.007	-0.007		
	(-0.54)	(-0.58)			(-0.5)	(-0.16)			(0.49)	(-0.18)		
Active family			-0.005	-0.013			-0.007	0.010			0.014	-0.006
			(-0.31)	(-0.34)			(-0.33)	(0.15)			(0.64)	(-0.1)
Passive family			-0.005	-0.013			-0.005	-0.022			-0.005	-0.008
			(-1.32)	(-1.23)			(-0.87)	(-1.13)			(-0.59)	(-0.52)
Ln(1+delta)	0.006	0.014	0.006	0.014	-0.000	0.032	-0.000	0.032	0.022	0.017	0.022	0.017
	(0.53)	(0.46)	(0.53)	(0.46)	(-0.01)	(0.68)	(-0.01)	(0.68)	(1.29)	(0.34)	(1.29)	(0.34)
Ln(1+vega)	0.027***	0.069**	0.027***	0.069**	0.013	0.046	0.013	0.046	0.044**	0.095*	0.044**	0.095*
	(2.67)	(2.32)	(2.67)	(2.32)	(0.86)	(0.93)	(0.86)	(0.93)	(2.43)	(1.68)	(2.43)	(1.68)
Equation-level R ²	0.075	0.046	0.075	0.046	0.101	0.068	0.101	0.068	0.101	0.054	0.101	0.053
Model R ²	0.321		0.405		0.363		0.431		0.398		0.502	
# of obs.	1,756		1,756		839		839		838		838	

<i>Panel B: corporate segments</i>												
	1		2		3		4		5		6	
					Below median firm risk				Above median firm risk			
	HHI	Diver.	HHI	Diver.	HHI	Diver.	HHI	Diver.	HHI	Diver.	HHI	Diver.
Family	-0.004	-0.007			-0.010	-0.007			0.008	-0.035*		
	(-0.4)	(-0.49)			(-0.79)	(-0.39)			(0.68)	(-1.83)		
Active family			-0.005	-0.013			-0.013	-0.010			0.015	-0.059*
			(-0.31)	(-0.56)			(-0.6)	(-0.3)			(0.76)	(-1.95)
Passive family			-0.002	0.002			-0.007	-0.005			-0.002	0.005
			(-0.86)	(0.57)			(-1.04)	(-0.54)			(-0.56)	(0.58)
Ln(1+delta)	0.001	-0.013	0.001	-0.013	-0.002	-0.002	-0.002	-0.002	0.017	-0.057**	0.017	-0.057**
	(0.05)	(-0.78)	(0.05)	(-0.78)	(-0.17)	(-0.11)	(-0.17)	(-0.11)	(1.1)	(-2.36)	(1.1)	(-2.36)
Ln(1+vega)	0.012	-0.005	0.012	-0.005	0.019	0.013	0.019	0.013	0.018	-0.021	0.018	-0.021
	(1.18)	(-0.35)	(1.18)	(-0.35)	(1.17)	(0.56)	(1.17)	(0.56)	(1.14)	(-0.86)	(1.14)	(-0.86)
Equation-level R ²	0.111	0.129	0.111	0.130	0.143	0.162	0.143	0.162	0.121	0.118	0.121	0.118
Model R ²	0.385		0.461		0.432		0.493		0.433		0.531	
# of obs.	1,756		1,756		839		839		838		838	

This table reports structural equation model estimates (total effects) of M&A activities (Panel A) and corporate segments (Panel B) on founding-family CEO pay sensitivities/presence. Z-Values are in parentheses and are corrected for serial correlation and heteroskedasticity by clustering on the firm-level identifier. All specifications control for industry (1-digit SIC codes) and year fixed effects. The symbols *, **, and *** represent statistical significance at the 0.1, 0.05, and 0.01 levels, respectively.

Our main results hold when we replace (family) firm type dummies with (family) ownership and also when we use several alternative estimation methods (to address sample selection and endogeneity issues), e.g., OLS, Tobit,

and Heckman models. These results are not displayed in the paper due to limited space and are available upon request. In summary, our study shows that active family firms tend to have lower vega and higher delta relative to passive and non family firms alike. Delta decreases while vega increases riskier R&D investments, while the former is driven by high risk firms and the latter is driven by low risk firms. Vega seemingly motivates M&A activities, driven by high risk firms. Families diversify less and allocate less capital to R&D projects in active family high risk firms in particular. Overall, by a structural model, consistent with our conjectures, our findings support the risk aversion hypothesis for active family firms and show some evidence for the horizon hypothesis for passive family firms. Our estimates further indicate that CEO pay incentives induce investments with varying degrees of riskiness and investment policy appropriate to firm risks. When facing riskier business environment, active family firms prefer less risky investments. Yet, inconsistent with the risk aversion hypothesis, they tend not to pursue risk reductions through corporate diversification, consistent with Anderson and Reeb (2003b). It can be that these families regard diversification as losing control or business focus instead of reducing risk.

5.2 Discussion: firm age and vega in active family firms

Our paper studies the two hypotheses of family risk profiles by examining their investment decisions. We focus on the pay incentives that motivate the decision to allocate capital to risky investments. This is one innovative element of our paper. In this section we look closer at the relationship between family presence/ownership and vega, the main incentive variable of interest. Because of risk aversion, (very) high ownership is hypothesized to be associated with low vega. Nevertheless, we expect that firm age to be critical in vega conditional on ownership. For instance, an old firm typically faces scarce growth opportunities and might need to have high vega to motivate managerial efforts on long-term and risky investments that ensure prosperity of the firm. We find supporting evidence from three contour plots of firm age, family ownership, and vega in three types of family firms (not displayed due to limited space and are available upon request). For each type of firms, there are areas of high vega located on the middle-right side of the plot. Hence, high vega (together with substantial ownership) is provided by some old firms despite less so in active family firms, which suggests the risk aversion hypothesis. Interestingly, for active family firms, there is one area of high vega located on the bottom-left side of the plot. This indicates that high vega is provided by some young active family firms, which supports the horizon hypothesis. In addition, the relation between firm age and ownership is positive (slightly concave) active family firms, although there seems no relation in passive and non family firms. This indicates that ownership accumulates over time for family CEOs only. Consequently, for active family firms, in their early stage of business, delta is not very high because of (relatively) lower ownership, but vega can be very high due to their risk seeking preferences (e.g., entrepreneurship). Over time, when firms age and thus lack growth opportunities, vega can be high to induce CEOs to engage in long-term investments. However, there are fewer such cases in active family firms due to high levels of risk aversion.

6. Concluding Remarks

Anderson et al. (2012a) document that families prefer to allocate financial resources to capital expenditures relative to risky R&D investments. They argue that this is because risk aversion of these families outweighs their longer investment horizon for their long-term commitment. Another line of research on family firms shows that these firms have different CEO pay structure compared with their non family counterparts. Since pay incentives potentially induce managerial behavior that enhances firm performance from different perspectives, and investment decision is one of the important observable decisions that CEOs make, it is plausible that family presence affects investment policy through pay incentives, in particularly option vega. Based on the two hypotheses, risk aversion and investment horizon that have opposing effects on risky and long-term investments, we predict that vega has to be low enough in family firms so that risk aversion can dominate because vega motivates risk-taking behavior. Otherwise, family firms should prefer more risky and long-term investments, and the horizon hypothesis dominates. Using a sample of 1,756 firm-year observations that represent 362 small U.S. publicly traded companies between 2001 and 2005, our structural equation model estimates show that active family firms have lowest vega and highest delta. They prefer to devote less capital to risky R&D projects, especially for high risk firms. Our results also show

that passive and non family firms are similar, in terms of their pay incentives as well as their choices of investment policy. So, risk aversion effects dominate horizon considerations for firms owned and run by families. Capital expenditures, usually viewed as less risky with a short-term feature, are not affected by family presence. This suggests that capital expenditure and R&D might not necessarily be substitutes. We do not find significant differences in M&A activities between different types of family firms. Active family firms facing high risk seem to diversify less in spite of their preference for low risk. Apparently, families do not think that having more business segments is able to reduce risk. More segments might lose focus and ownership, which these families value greatly.

Overall, our paper provides evidence that incentive pay is one mechanism that influences the choices of investment policy in (active) family firms. Furthermore, our study shows that firms owned and run by families are considerably different from the others. Our robustness tests show that outside CEOs in passive family firms tend to invest more in risky R&D projects relative to those in non family firms. So, replacing a family CEO with an outside professional seems to encourage some risk-taking initiatives, which is consistent with the horizon hypothesis, to a lesser extent though. This also indicates that, to avoid spurious relations, the classification of family firms should consider not only the ownership but also the control of the firm.

We make several contributions to the literature on family firms. First, to our best knowledge, this paper is the first to analyze how family presence or ownership affects the choice of investment policy through CEO pay sensitivities. There have been a number of studies that examine the CEO pay (incentives) in family firms (Gomez-Mejia et al., 2003; Li et al., 2012) as well as their investment patterns (Anderson et al., 2012a), but none attempts to consider these simultaneously. It is plausible that the differences observed in CEO pay structure in family firms might explain the differences in investment policy in these firms. Our study fills the gap with better analytical modelling that potentially addresses issues such as endogeneity and/or missing values. Our empirical evidence supports the notion that active family firms have different pay incentives from the other types of firms that affect their choices of investment policy. Second, we refine the typical categorization of "family versus non family" firms in terms of degree of family ownership. Similar to e.g., Anderson and Reeb (2003a) and Barontini and Caprio (2006), we classify firms into three different types that reflect varying degrees of family involvement both in ownership structure and in the management. We argue that the CEO's identity matters as well. Indeed, we find that the incentives and the investment patterns appear to differ significantly in active family firms as opposed to passive and non family firms alike, a result which could not be captured by the traditional family firm categorization. Hence, a CEO's family affiliation is a valid and important criterion to classify family firms. This also suggests that replacing a family CEO with an outside professional means not only the transition to non family firms but also different corporate behaviour from the past.

Finally, previous work on the corporate investment literature usually focuses on firm-specific characteristics. Several studies explore how managerial incentives influence observable operations and policy choices, as well as the implications (e.g., Guay, 1999; Coles et al., 2006; Hagedorff and Vallascas, 2011). Our analysis incorporates the aspect of organizational structure by considering ownership (founding family presence/ownership) and control (CEO pay incentives) at the same time. In line with Anderson et al. (2012a), we demonstrate that owner preferences matter in the choice of corporate investment policy. Besides, our results provide evidence that the influence of family ownership is beyond that of typical concentrated ownership. Therefore, research on incentive compensation and firm valuation without considering family presence could result in spurious relations and false implications.

References

- [1] Anderson, R., Bates, T., Bizjak, J., Lemmon, M. (2000). Corporate governance and firm diversification. *Financial Management*, 29, 5–22.
- [2] Anderson, R., Duru, A., Reeb, D. (2009). Founds, heirs and corporate opacity. *Journal of Financial Economics*, 92, 205–222.
- [3] Anderson, R., Duru, A., Reeb, D. (2012a). Investment policy in family controlled firms. *Journal of Banking & Finance*, 36, 1744–1758.
- [4] Anderson, R., Reeb, D. (2003a). Founding-family ownership and firm performance: Evidence from the S&P 500. *Journal of Finance*, 58(3), 1301–28.
- [5] Anderson, R., Reeb, D. (2003b). Founding family ownership, corporate diversification, and firm leverage. *Journal of Law and Economics*, 46, 653–684.
- [6] Anderson, R., Reeb, D. (2004). Board composition: Balancing family influence in S&P 500 firms. *Administrative Science Quarterly*, 49, 209–237.
- [7] Anderson, R., Reeb, D., Zhao, W. (2012b). Family controlled firms and informed trading: Evidence from short sales. *Journal of Finance*, 67, 351–386.
- [8] Barontini, R., Caprio, L. (2006). The effect of family control on firm value and performance: Evidence from continental Europe. *European Financial Management*, 12(5), 689–723.
- [9] Bartholomeusz, S., Tanewski, G. (2006). The Relationship between founding-family firms and corporate governance. *Journal of Small Business Management*, 44(2), 245–267.
- [10] Berger, P., Ofek, E., Yermack, D. (1997). Managerial entrenchment and capital structure decisions. *Journal of Finance*, 52, 1411–1438.
- [11] Berle, A., Means, G. (1932). *The modern corporation and private property*. New York: Macmillan.
- [12] Brockman, P., Martin, X., Unlu, E. (2010). Executive compensation and the maturity structure of corporate debt. *Journal of Finance*, 65, 1123–1161.
- [13] Cadenillas, A., Cvitanic, J., Zapatero, F. (2004). Leverage decision and manager compensation with choice of effort and volatility. *Journal of Financial Economics*, 73, 71–92.
- [14] Chen, X., Dai, Z., Cheng, Q. (2007). Are U.S. Founding-family firms subject to agency problems? Evidence from CEO turnover and firm valuation. Working Paper.
- [15] Chidambaran, N., Prabhala, N. (2003). Executive Stock Option Repricing, Internal governance mechanisms, and management turnover. *Journal of Financial Economics*, 69, 153–189.
- [16] Claessens, S., Djankov, S., Lang, L. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, 58(1-2), 81–112.

Contact author for the full list of references.

Credit quality, bank provisioning and systematic risk in banking business

Josanco Floreani, josanco.floreani@uniud.it
Andrea Paltrinieri, andrea.paltrinieri@uniud.it
Maurizio Polato, maurizio.polato@uniud.it
University of Udine
Flavio Pichler, flavio.pichler@univr.it
University of Verona

Credit quality, bank provisioning and systematic risk in banking business

Abstract

Based on a sample of 59 European banks over the period 2006-2011, we investigate the impact of the loan loss provisioning (LLP) together with a wide array of credit-risk exposure and performance variables on systematic risk measured by betas. We develop a model for assessing whether management behaviour, accounting policies, such as LLP, and the quality of loan portfolio play a significant role in explaining the banks' systematic risk exposure. Our results suggest that financial performances do not have a direct significant relation with betas; rather measures of risk exposures (risk weighted assets on total assets) substantially affect systematic risk. During crisis systematic risk significantly responsive to provisions and their impacts on performances.

Our study has several implications, in particular at light of changing European regulation on non-performing exposures reporting and forbearance practices alongside with regulators forcing banks to strengthen their capital base.

Introduction

Managerial behaviour and accounting policies have a huge impact on corporate earnings and their information content. Reporting of non-performing loans and loan loss provision (LLP) practices are among the major concerns in the banking industry. Asset quality, exposure to credit-risk and provisioning bear great implications in relation to earnings volatility and capital adequacy. Managers may rely on discretionary provisioning as a mean of smoothing earnings. While there is a large debate in literature about the incentives to discretionary LLP, there's no doubt that such a practice might hinder the true riskiness of the bank and distort market perceptions. On the same vein, discretionary provisioning may be regarded as a tool for optimizing bank's capital. The aim of the paper is to investigate the impact of the loan loss provisioning and other significant credit-risk exposure variables on the banks' cost of capital proxied by betas. The issue is of great interest at least for three reasons. The first is that international competition, differences in the economic cycle and various industrial arrangements might be accountable for differences the cost of capital across countries. The third reason is tightly related to the new proposed EU regulations referring to LLP and non-performing loans reporting. Our paper makes an important contribution in this field, as there is a lack of literature assessing the impact of LLP on the cost of capital. Our study has several implications, in particular considering the change of European regulation on non-performing exposures reporting and forbearance practices, the adoption of Basel III capital accord and at light of regulators forcing banks to substantially reinforce their capital base. The paper is organized as follows. Section 2 defines the theoretical framework with reference to the determinants of betas. Section 3 describes sample, data and methodology. Section 4 summarizes the main results while section 5 discusses policy implications. Section 6 concludes.

Determinants of beta and hypothesis development

Risk assessment and management are two of the major building blocks of finance in general and banking business in particular. In today's banking industry banks are required to strengthen their core capital base either for complying with regulatory requirements and as a result of supervisory pressures. These capital needs cast two main problems: that of the cost of rising new equity funds and that of the relative convenience of alternative sources of funds such as subordinated debt. The cost of capital and its determinants have been widely investigated either in corporate finance and bank specific literature. The idea that the cost of capital is to a large extent determined by the value that the stock market assigns to corporate's earnings is well established. By the way, the topic of bank's earnings quality is of great

interest at light of accounting policies, in particular regarding the use of loan loss provisions (LLPs) and incentives that banks face.

The topic of loan loss provisions (LLPs) has been broadly investigated in the literature, but a consensus on whether banks' managers use LLPs for income smoothing, capital management or with a signalling effect still lacks. The rationale for the income smoothing hypothesis lies in the fact that LLPs can be used to reduce the volatility of earnings. The early studies in the income smoothing literature date back to the end of the 1980s and the first contributions were those by Greenawalt and Sinkey (1988) and Ma (1988), who find evidence of earnings management in the U.S. banking industry. Greenawalt and Sinkey (1988) find that banks' managers effectively tend to use LLPs to reduce reported earnings through an increase in LLPs when income is high, while they tend to reduce LLPs when earnings are low. Ma (1988) finds a strong evidence of banks' managers using LLPs to reduce (raise) their earnings when the operating income is high (low). Wahlen (1994) tests the income smoothing hypothesis on a group of 106 commercial banks for the period 1977-1988 and finds that when future cash flows are expected to be positive, banks' managers increase LLPs. On the contrary, Wetmore and Brick (1994) find no evidence of income smoothing practices in the analysed sample of 82 US banks for the 1986-1990 period. Bhat (1996) tests the income smoothing hypothesis for 148 U.S. large banks in the period 1981-1991 and finds that income smoothing is typical of small, badly capitalized and with poor financial conditions banks.

According to the CAPM the cost of capital is function of a market risk premium according to the firm's beta where the latter is determined regressing stock returns on market returns. A growing body of literature develops alternative methods for determining betas against firm's fundamentals. The rationale laying behind fundamental betas is to use financial data in order to capture systematic risk. A plenty of contributions (among others see Rosenberg and McKibben, 1973; Fama and French, 2004; Chance, 1982; Dyl and Hoffmeister, 1986 and Gahlon and Gentry, 1982) advocates the merits of fundamental betas over historical betas arguing that the latter provide better indications of the sources of systematic risk. Prominent contributions find significant correlations between β 's and *pay out ratios*, financial leverage and earnings yield volatility (Beaver, Kettler and Scholes, 1970); other studies account for a significant explanatory power asset size and profitability (Logue and Merville, 1972). Such studies, in particular, conclude for a negative relation between profitability and systematic risk which is coherent with the idea that successful firms reduce the chance of systematic risk. While such an intuition might make sense in general, there are good reasons for arguing for an inverse relation in certain industries. Borde *et alri* (1994) found a positive relationship between profitability and systematic risk in insurance companies.

Our study is grounded on standard corporate finance theoretical models and bank specific research as well. We try to capture the influences of both systemic factors and firm specific variables on the cost of capital.

Although one could attempt to find the most significant macroeconomic variables for capturing the exposure of banks to systemic risk, almost all the possible measures are potentially subject to criticism and fallacies. For example, a useful proxy of pro-cyclical behaviour is given by the credit-to-GDP ratio. However, what the most appropriate GDP measure for an internationally active banking group is, could be a matter of debate. A feasible way to overcome this problems is determining banks' betas against an average sectorial beta and investigating which risk factors differentiate each bank from the sectorial average.

Several market-based and corporate-risk based variables might be assumed as determinants of betas and, in particular, to explain heterogeneity among banks. Market-based variables are related to trends in share prices. Aggressive stocks could be deemed as having higher sensitivity to systematic risk. Corporate-risk based variables could be grouped in several blocks of variables a plenty of which characteristic of banking business or, at least, have paramount implications for banks.

Dependent on the business model there are, then, a variety of variables capturing the exposure on credit risk. Good indicators of risk could be found in the balance sheet, income statement and other disclosures (i.e., disclosure on asset quality), such as ratios in different asset categories and margins. Relevant categories (Rosenberg and Perry, 1978; Di Biase and D'Apolito, 2012). Given the aim of our study, we are in particular interested in investigating betas against the quality of loans portfolio with a wide array of specifications regarding in particular the provisioning behaviour, the riskiness of loans and the impact on performances.

Managers have some discretion in provisioning and they use discretionary provisioning as a mean of income smoothing as recognised in literature. Some author argue (see Kanagaretnamet et al., 2005) that managers have the

incentive to adjust banks' current performance to an average performance of a group of benchmark banks. Should this hold, we would expect pricess volatility of banking institutions converging toward sectorial volatility with differences being due to specific characteristics of each institutions, in particular business models. Arguably, while such form of "benchmarking" could make sense during normal times, it would prove more difficult for banks to track an average sectorial performance during crisis.

However, the pro-cyclical behaviour of banks casts the question of whether betas are actually responsive to performance measures or, rather, they are reactive to risk taking behaviour, which affects future losses and performances. LLPs plays a relevant role within this framework. Since they represent provisions set aside to cover expected losses (which represent the cost of lending) an underestimation of the expected losses during benign times will lead to an increase in profits and lending activity due to overconfidence. Provisioning, together with capital requirements, has to do with the coverage of credit risk. Capital requirements themselves, which are designed to cover unexpected losses, are expected to have an impact on systematic risk and this might be particularly true during crisis given the shortage of reserves which is due to the pro-cyclical behaviour of provisioning. We develop the following hypothesis.

Hypothesis 1 – Betas are responsive to risk exposure and risk-coverage policies rather than current performances. Specifically, on loan loss provisioning behaviour.

Hypothesis 2 – The relation between bank's betas and sectorial betas weakens during crisis periods as the impact of bank's fundamentals is expected to increase and widely affect volatility.

Hypothesis 3 – In crisis times, capital adequacy turns to assume a significant role in driving betas due to increasing concerns as of bank soundness.

Data and methodology.

1.1 Description of the sample and variables

Our study is based on a sample of 59 major European banking groups covering 10 countries. Our selection strategy is based on a total asset criteria. More precisely, for each country we select those groups above 10 billions in total assets. In order to avoid duplications we rely on consolidated financial information. We collect consolidated balance sheet data form the Bankscope database on a timeframe spanning the period 2005-2011. We have, therefore, a total of 413 observations. Table 1 summarizes our sample. It reports the number of banks for each country and the average total assets over the selected time span. Unfortunately, not all the banks in our sample are listed. On balance we have 38 listed banks for which betas are available.

TABLE 15 – THE SAMPLE

Country	Number of banks	Total assets 2011 (bn €)
Italy	12	197,120,225
Germany	7	560,840,714.3
Spain	11	233,697,909
Portugal	4	84,310,175
France	6	932,250,483.3
Netherland	2	1,005,446,500
Belgium	2	349,070,500
Austria	3	88,489,400
UK	9	824,654,733.3
Ireland	3	115,690,667
Total	59	

We, then, collect from the Bloomberg database the betas for each bank in our sample. Since we are interested in testing the impact on bank's betas of macro factors, we relied on Bloomberg database to calculate sectorial betas. Instead of

collecting banking sector betas we had to rely on the broader financial sector beta for each country under investigation. Such a simplification is due to the fact that we weren't able to find the narrower banking sector beta for all the countries in our sample. We get for each year the betas over a 2-year time horizon. Sectorial betas are derived from each country MSCI indexes.

We predict bank's betas across a set of basic variables describing various bank's profiles of performance and risk exposure and, namely, credit-risk exposure and risks associated with financial fragility. Contrary to other studies we employ also sectorial betas in our model (see discussion in the previous section). We also employ a set of control variables. Table 2 describes our variables together with the respective predicted sign of the relation with betas.

Profitability variables (ROE and PIMOPTA) are expected to be positively related to betas. We recall the discussion in the previous section for such a relation. For similar reasons we expect there should be a positive relation of RWATA, ECAPTE and IMPLGL to systematic risk and a negative relation of RILGL and RILIMPL to systematic risk. Higher risk taking behaviour, in fact, leads to higher risk weighted assets, higher economic capital and, potentially, a higher fraction of impaired loans on gross loans which is a measure of the magnitude of non-performing loans. In particular, a higher ECAPTE implies tensions in capital adequacy and, therefore, a greater exposure to risks. We expect a negative relation with RILGL and RILIMPL. The former, in particular, is a significant ratio for banks as it represents the so called coverage ratio measuring the ability of banks to absorb potential losses from non-performing loans. Related to the riskiness of the credit portfolio is the ratio of risk weighted assets on total assets for which we expect a positive relation with betas. By the way, such a relation has been already investigated (although in the opposite way) in other studies (Beltratti and Paladino, 2013).

TABLE 16 – DESCRIPTION OF THE VARIABLES

Category	Variable	Description	Predicted sign
Market-based risk	P/BV	Price-to-book value	(+)
	GL/TA	Ratio of net loans on total assets	(+)
	IMPL/GL	Ratio of impaired loans on gross loans	(+)
	LLP/GL	Ratio of loan impairment charges on gross loans	(-)
	RIL/GL	Ratio of reserves for impaired loans on gross loans	(-)
	RIL/IMPL	Ratio of reserves for impaired loans on impaired loans	(-)
	LLP/IOL	Ratio of loan impairment charges on interest on loans	(+)
Credit risk variables	LLP/PIMOP	Ratio of loan impairment charges on pre-impairment operative profit	(+)
	RIL/TE	Ratio of reserves for impaired loans on total equity	(-)
	ECAP/TE	Ratio of economic capital on total equity	(+)
	LLP/IMPL	Ratio of loan impairment charges on impaired loans	(-)
	RWA/TA	Ratio of risk weighted assets on total assets	(+)
Liquidity	DMMS/TE	Domestic money market an short term funds on total equity	(+)
Performance variables	ROE	Net income on total equity	(+)
	PIMOP/TA	Pre-impairment operative profit on total assets	(+)

We, finally, assume the Tobin-q (PBV), which underpin the convenience of an aggressive behaviour in issuing loans and lead us to predict a positive sign of the relation with betas, and the GLTA (assumed as a proxy of the business model) as main control variables. Finally, other control variables are the magnitude of LLP on pre-impairment operative profit (LLPPIMOP) and on interest on loans (LLPIOL).

3.2 Descriptive statistics

Table 3 reports the main descriptive statistics (i.e. the mean and the coefficient of variation calculated as the ratio of mean on the standard deviation) for each variable and for each year under investigation.

Descriptive statistics reveal a plunge in PBV and profitability measures with high coefficients of variation. As regards credit-risk variables what emerges is an increase in loan impairment charges on gross loans over time, in particular during the peaks of the financial crisis (although with a reversion of the trend in the latest year of observations). However, not surprisingly, there emerges great variability especially in 2009 and 2010 unveiling a certain heterogeneity in provisioning behaviours across the European banking industry during the crisis. By contrast, the incidence of impairment charges on impaired loans shows a decreasing trend but with higher coefficients of variation during pre-crisis years while variability has been declining starting with 2008. What is worth to be pointed out are the high levels of economic capital relative to total equity during the pre-crisis periods and the sharp decline in the ratio which reflects the efforts of the banking industry to strengthen capitalization. Concerns, then, arise looking at the ratio of impairment charges on the interests on loans which shows a sharp upward trend during the crisis years.

TABLE 17 – DESCRIPTIVE STATISTICS

	SECT	P/BV	ROE	PIMO	DMM	GL/TA	IMPL/	RIL/G	RIL/I	LLP/I	LLP/PI	ECAP/	LLP/I	RWA/	
	BETA			P/TA	S/TE		GL	L	MPL	OL	MOP	TE	MPL	TA	
2005	Mean	1.033	322.23	12.938	0.010	0.671	0.571	0.026	0.018	1.473	0.079	0.208	2.448	0.544	0.006
	St. Dev.	0.096	2.377	0.506	0.443	0.263	0.327	1.088	0.786	1.258	0.727	1.002	1.773	3.431	0.369
2006	Mean	1.041	336.74	15.723	0.010	0.663	0.564	0.022	0.016	1.356	0.068	0.185	2.240	0.167	0.005
	St. Dev.	0.111	2.532	0.426	0.427	0.269	0.357	0.944	0.695	1.090	0.666	0.623	1.850	6.604	0.387
2007	Mean	1.144	349.77	14.220	0.010	0.651	0.576	0.022	0.016	1.093	0.060	0.181	2.100	0.270	0.006
	St. Dev.	0.054	2.506	0.427	0.491	0.264	0.354	0.891	0.647	0.857	0.768	0.793	1.962	1.165	0.389
2008	Mean	1.179	238.68	2.194	0.008	0.641	0.582	0.029	0.018	0.690	0.100	4.900	2.328	0.254	0.005
	St. Dev.	0.125	2.511	10.861	0.756	0.285	0.356	0.562	0.548	0.480	0.642	6.612	1.786	0.786	0.367
2009	Mean	1.281	165.49	-11.235	0.009	0.656	0.581	0.047	0.024	0.607	0.286	0.887	1.953	0.297	0.005
	St. Dev.	0.156	2.644	-8.301	0.540	0.250	0.339	0.806	0.772	0.587	1.567	5.157	1.810	0.962	0.391
2010	Mean	1.440	139.42	-3.619	0.008	0.671	0.577	0.056	0.029	0.582	0.452	1.432	1.855	0.186	0.005
	St. Dev.	0.148	2.520	-15.207	0.540	0.233	0.350	1.281	1.241	0.594	3.189	4.306	1.845	0.739	0.402
2011	Mean	1.352	5.85	-4.746	0.007	0.669	0.566	0.068	0.035	0.569	0.261	0.326	0.004	0.170	0.005
	St. Dev.	0.118	3.25	-6.249	0.669	0.249	0.350	1.281	1.425	0.657	1.586	10.461	7.580	0.758	0.398
Total	Mean	1.210	221.62	3.145	0.009	0.660	0.574	0.038	0.022	0.901	0.193	1.169	1.827	0.266	0.005
	St. Dev.	0.171	2.853	14.448	0.554	0.258	0.345	1.270	1.202	1.151	3.226	10.881	2.027	3.080	0.388

The table reports the mean and the coefficient of variation (standard deviation/mean) of the variables for each year within the time span 2005-2011.

1.3 Methodology

When testing the impact of both sectorial betas and loan quality on bank's betas a concern comes to the forefront, having to do with potential autocorrelation and endogeneity. Endogeneity, in particular, occurs when the dependent variable while being responsive to an independent variable affects the latter itself. In our setting the candidate variable to produce endogeneity is SECTBETA. Another variable which arguably can display endogeneity is ROE. Higher performances are expected to affect betas but can be themselves affected by systematic risk, to the extent that higher risk exposure lead to higher costs of external funds. Finally, there could be exogeneity with risk weighted assets (see Beltratti and Paladino, 2013). To address some concerns we start with a static approach. We start by employing a GLS fixed effects panel data model for predicting our dependent variable. The general model we employ is as follows:

$$\beta_{i,t} = \alpha + b_1 \text{sectbeta}_{i,t} + b_2 \text{llpgl}_{i,t} + b_3 \text{rilimpl}_{i,t} + b_4 \text{roe}_{i,t} + b_5 \text{ecapte}_{i,t} + b_6 \text{rwata}_{i,t} + b_7 \text{llpimpl}_{i,t} + b_8 \text{llppimop}_{i,t} + b_9 \text{dmmste}_{i,t} + b_{10} \text{glta}_{i,t} + b_{11} \text{rilgl}_{i,t} + b_{12} \text{llpiol}_{i,t} + b_{13} \text{pbv}_{i,t} + b_{14} \text{pimopta}_{i,t} + b_{15} \text{rilte}_{i,t} + v_{i,t} \quad (1)$$

Where i denotes the i -th bank and t identifies time.

In order to investigate the impact of the crisis we then introduce a dummy (CRISIS) which take value 1 for years 2008-2011 and 0 for others. We test for the effects of the interaction of such variable with LLPGL (CRISIS*LLPGL) and LLPPIMOP (CRISIS*LLPPIMOP) in order to assess whether the crisis alters the riskiness of the loan portfolio and hurdles financial performances. We test, moreover, an interaction of CRISIS, LLPGL and LLPIMPL (CRISIS*LLPGL*LLPIMPL) together.

After that, we control for endogeneity and run an instrumental-variables regression model which is generally employed in econometrics for dealing with endogenous variables. In order to check for endogeneity we follow Wooldridge (2002) and estimate a fixed effect version of equation 1 that includes future values (i.e., we create leading variables) of some regressors (see next section). We, then, run an Instrumental Variable regression for dealing with endogeneity and check for differences with the GLS model.

Results

In a static approach we explain bank's betas in our sample and for the reference time frame on the basis of a set of variables including the sectorial betas and other variables capturing bank's fundamentals. Table 4 presents the results. Column 1 summarizes the results including our base variables. Column 2 adds the effect of financial fragility (DMMSTE); column 3 adds the effects of interactions while column 4 comprises control variables. We apply a GLS paned data model with fixed effects. Evidences are quite mixed. The first model shows a positive and significant relation between bank's betas and sectorial betas. The relation between betas and ROE is significant at 10% level however, unexpectedly, the sigh of the relation is negative, meaning that higher profitability reduces exposure to systematic risk. It is possible that the sign is strongly influenced by the trends during the crisis, characterized by sharp increases in betas and plunges in bank's profitability. Eventually, this could explain the "absorption" in betas of wider macro risks captured by the sectorial index. The relation of other regressors (in particular those referring to loan quality) with betas is not significant and opposite to what expected implying that risks were not factored in balance sheets in the years preceding the crisis. The inclusion of DMMSTE do not alters significantly the outcomes of the model.

When we investigate the effects of impairment charges in the period 2008-2011 (see regression 3 in Table 4) we find that the sign of the coefficient CRISIS*LLPGL turns negative, coherently with prediction, and significant at 5% level meaning that the market factors an improvement in systematic risk exposure as banks increase impairment charges on their loan portfolio. Surprisingly, however, the sign of RILIMPL turns to be positive. Finally, the sign of CRISIS*LLPPIMOP is positive and significant at 1% level. The sign here is coherent with the negative sign attached

to ROE. It is interesting to see, however, that LLPPIMOP turns to be negative and significant at 1% level. The interaction CRISIS*LLPGL*LLPIMPL is negatively related to beta. When introducing the control variables we find a positive and 5% significant relation between GLTA and betas implying that systematic risk is responsive to the business model and increases with the exposure of banks to credit risk. The Durbin-Watson statistic reveals the existence of autocorrelation.

TABLE 18 – GLS REGRESSION MODEL

We include a dummy variable which is CRISIS taking value 1 for years comprised in the timeframe 2008-2011 and 0 otherwise.

	1	2	3	4
BETA	.3961***	.4048	0.3613***	.3624
SECTBETA	(0.000)	(0.000)***	(0.000)	(0.001)***
LLPGL	.2260	-.4553	37.7819**	58.3510
	(0.958)	(0.915)	(0.004)	(0.002)***
RILIMPL	-.0160	-.0153	.0229	.0578
	(0.648)	(0.661)	(0.513)	(0.171)
ROE	-.1387*	-.1536*	-.1417*	-.0927
	(0.086)	(0.058)	(0.062)	(0.342)
ECAPTE	-.0078	-.0094	-.0071	-.0065
	(0.267)	(0.185)	(0.294)	(0.531)
RWATA	-12.6130	-13.8744	-7.8515	-30.2843
	(0.620)	(0.583)	(0.748)	(0.234)
LLPIMPL	0.1622	0.1723	.0429	-.1269
	(0.286)	(0.255)	(0.789)	(0.496)
LLPPIMOP	.0132	.0139	-.7815***	-.8323***
	(0.299)	(0.271)	(0.000)	(0.000)
DMMSTE		-.5304*	-.3633	-.2765
		(0.097)	(0.231)	(0.366)
CRISIS*LLPGL			-33.1056**	-41.963***
			(0.008)	(0.002)
CRISIS*LLPPIMOP			.7893***	0.8329***
			(0.000)	(0.000)
CRISIS*LLPGL*LLPIMPL			-2.6745	3.9210
			(0.754)	(0.667)
GLTA				0.8324
				(0.011)**
LLPIOL				-.4679
				(0.204)
PBV				-.00001
				(0.808)
PIMOPTA				-8.4166
				(0.188)
CONS	0.6148	.9625	.8493	.4765
	(0.001)	(0.001)	(0.001)	(0.102)
F-test (model)	6.56***	6.20***	7.67***	6.49***
R ² within	0.2348	0.2471	0.3553	0.3964
R ² between	0.2130	0.2597	0.1975	0.0017
R ² overall	0.1661	0.2160	0.1703	0.0227
F-test (fixed effect)	21.37***	21.61***	24.75***	22.97***
Durbin Watson	0.340280	0.334382	0.362610	0.454636

We then, check whether and to what extent things change when dealing with autocorrelation and endogeneity. In table 5 we check for strict exogeneity running a fixed-effect version of equation 1 introducing leading values of sectorial betas, ROE and RWATA. While the former are not significant, return on equity and risk weighted assets are significant. We, therefore, reject strict exogeneity of such variables.

We employ an Instrumental variables regression for dealing with endogenous variables. Table 6 summarizes the results of our regressions, whose design is the same as in Table 4, on basis of an Instrumental Variables model estimation. The only difference is that we treat control variables as instrumental variables for endogenous ones.

TABLE 19 – TEST OF STRICT EXOGENEITY

The table below reports the results of running a GLS-fixed effect version of the panel model in equation 1 including future values of SECTBETA, ROE and RWATA.

BETA	1	2	3	4
	.3651***	.3095***	0.3903***	0.2851
SECTBETA	(0.000)	(0.002)	(0.000)	(0.004)***
	-.8532	.7319	-2.3833	-3.9277
LLPGL	(0.844)	(0.861)	(0.617)	(0.410)
	-.0010	-.0029	-.0141	0.0031
RILIMPL	(0.977)	(0.933)	(0.686)	(0.929)
	-.1741	-.2128	-.2411	-.4278
ROE	(0.040)**	(0.009)**	(0.156)	(0.018)**
	-.0104	-.0105	-.0120	-.0144
ECAPTE	(0.155)	(0.131)	(0.107)	(0.058)*
	-10.6646	-3.4936	-1.9554	9.7553
RWATA	(0.674)	(0.894)	(0.941)	(0.717)
	-.1100	.1372	0.1894	0.1415
LLPIMPL	(0.481)	(0.356)	(0.207)	(0.348)
	.0150	.0085	0.0136	.0101
LLPPIMOP	(0.238)	(0.507)	(0.275)	(0.425)
	.1188			.0993
SECTBETA _{t+1}	(0.174)			(0.287)
		-.2390		-.1955
ROE _{t+1}		(0.002)***		(0.009)**
			-36.355	-30.2109
RWATA _{t+1}			(0.031)**	(0.071)*
	.5146	.6890	.7798	.7311
CONS	(0.011)	(0.000)	(0.000)	(0.001)
F-test (model)	6.06***	7.22***	6.18***	6.13***
R ² within	0.2430	0.2850	0.2567	0.3031
R ² between	0.1713	0.0893	0.2557	0.1247
R ² overall	0.1491	0.0980	0.2234	0.1254

As in the previous regression analysis, we find a significant impact of sectorial betas on bank's betas. Controlling for CRISIS variable, we find that the significance of sectorial betas is weakening a bit but remains strong while fundamental factors becomes significant. More in depth, we find significant differences when introducing the CRISIS variable compared to the basic case where the impact of crisis is not taken into account. In particular, in the basic case we find, as expected, that risk weighted assets on total asset have a positive relation with betas at a 5% significance level. We find, therefore, support to our hypothesis 1 that risk exposure plays a significant role in explaining systematic risk while performance measures do not play a significant role. Dealing with endogeneity bias, therefore, things change.

LLPGL, RILIMPL, LICHIMPL and LICHPIMOP enter the relation with the expected sign. However, nor loan loss provisions or reserves are significant in explaining systematic risk. Our results suggest that while risk exposure

significantly and positively affects beta, risk-coverage policies (through loan loss provisions and reserves) do not have such a significant impact, arguably due to the fact that in good times loan losses are not a great concern. Bank's soundness measures have a negative relation as in the previous GLS model with betas. Again, however, the relation proves not to be significant.

In a CRISIS environment, fundamental factors gain relevance in explaining systematic risk as stated in our hypothesis 2 (column 3 in Table 6). Actually, traditional performance measures such as ROE again do not are significantly related with beta. Rather, we find that a significant role is played by loan loss provisions and, in particular, the ratios of provisions on gross loans and on pre-impairment operative profit.

TABLE 20 – INSTRUMENTAL VARIABLES REGRESSION

We include a dummy variable which is CRISIS taking value 1 for years comprised in the timeframe 2008-2011 and 0 otherwise.

	1	2	3
BETA	.2454***	0.2370**	.0907
BETA (L1)	(0.009)	(0.011)	(0.189)
SECTBETA	.3493***	0.3587***	.2548**
	(0.000)	(0.006)	(0.025)
LICHGL	-.5795	-.6434	46.371***
	(0.926)	(0.915)	(0.007)
RILIMPL	-.0585	-.0556	.0165
	(0.285)	(0.299)	(0.696)
ROE	-.3571	-.3277	-.2267
	(0.116)	(0.127)	(0.107)
ECAPTE	-.0104	-.0117	-.0110
	(0.283)	(0.220)	(0.139)
RWATA	310.922**	296.554**	168.795**
	(0.033)	(0.037)	(0.043)
LICHIMPL	-.0945	-.0812	-.0740
	(0.663)	(0.702)	(0.677)
LICHPIMOP	0.0279	0.0284	1.3442***
	(0.125)	(0.109)	(0.000)
DMMSTE		-.3493	-.3776
		(0.423)	(0.261)
CRISIS*LICHGL			-44.8393
			(0.009)***
CRISIS*LICHPIMOP			1.3650
			(0.000)***
CRISIS*LICHGL*LICHIMPL			-4.2799
			(0.658)
GLTA			
LICHIOL			
PBV			
PIMOPTA			
	-1.2463	.4109	0.0122
CONS	(0.137)	(0.015)	(0.981)
Number of instruments	10	11	14
Number of observations	206	206	206
Number of groups	34	34	34
R ² within	-	-	0.1598
R ² between	0.2545	0.2317	0.2456
R ² overall	0.2067	0.1887	0.1512
Wald χ^2	4435.44	4658.64	8201.43
	(0.000)	(0.000)	(0.000)

Sargan Hansen $\chi^2(1)$	0.063 (0.8020)	0.074 0.7854	0.115 0.7342
---------------------------	-------------------	-----------------	-----------------

The significance of LLPGL and LLPPIMOP resembles the results we found with our GLS model. Like in table 5, LLPGL enters with a negative sign which, as noted, is contrary to the predicted sign. The change in sign could find a possible explanation in the backward-looking behaviour of banks when dealing with provisioning, relating provisions to problem loans. Underestimation of losses during benign times naturally lead to overcharging when non-performing loans increases and the magnitude of the effect would be particularly strong during a financial turmoil. Therefore, a positive impact of LLPGL might be due to the failure of provisioning policies as a tool of smoothing earnings volatility. Apparently, we do not find support to our hypothesis 3 predicting the significance of the ratio of capital requirement on total equity (ECAPTE) in a crisis environment. In that, capital adequacy obviously becomes a concern. Looking at p-values of Hansens's test, we do not reject the null hypothesis. Therefore, our test hints a proper specification.

Discussion and implications

Our analysis has several implications at light of the extant literature on bank's earning quality, managerial incentives and the current debate surrounding the soundness of the banking industry. We find a positive relation between betas and RWATA. Such a relation has significant implications. It obviously implies the incentive to optimize risk exposure in order to economize in the cost of capital. At this regard, banks adopting an IRB approach for determining the regulatory capital might benefit of the advantages of a more precise alignment of regulatory capital to economic capital. Moreover, the relation we found between betas and RWATA might hinder an incentive for bank's managers to dampen the magnitude of risk on total assets should the bank have future growth opportunities to exploit. Moreover, we found a possible explanation to our finding in an underestimation of losses during benign conditions which would lead to overcharge provisioning in bed times. Should this hold banks would lack flexibility when growth opportunities would emerge. We feel, then, our results having significant implications as regards the impacts of different pieces of regulation and, namely, prudential capital adequacy regulation and accounting standards on managerial behaviours. Banking supervisors favours the use of accounting approaches based on conservatives valuations while IFRS counting standards are supportive to an incurred-loss approach. We found that the impact of LLPs proves to be significant in determining betas and, therefore, the cost of capital and such a relation is, arguably, particularly concerning during periods of distress.

Following the crisis supervisors have been requesting banks to increase their capital base. The latter are concerned with a potential increase in the weighted average cost of capital following a strengthening of the capital base due to higher levels of Tier 1 capital, supposedly more expensive than other sources of funds. While many theorists stress the fallacy of such an argument claiming that higher capital base reinforce bank's financial strength and, therefore, would imply a lowering of the cost of capital we put to the forefront another argument. We feel that our result of a positive and significant impact of loan loss provisioning in a crisis environment is an indirect argument in support of the income smoothing incentive. Rather to track an average benchmark-banks performance, such a behaviour should be targeted at dampening the volatility of betas and alleviating the impacts on the cost of capital during distress periods. Our results goes in favour of reducing the cyclicity of capital requirements through a system of dynamic provisioning such that experienced in Spain. In fact, where capital requirements are designed to cover unexpected losses, provisioning policies would be able to dampen the pro-cyclicity of the former. Finally, our results casts significant concerns as regards different forbearance behaviours and heterogeneous definitions of non-performing exposure across countries. As regards asset quality assessments different countries draw different lines between performing and non-performing loans. Apart hinder a proper assessment of asset quality by regulators, a lack of consistency in forbearance and non-performing loans definitions might have serious drawbacks for the market assessing the real soundness of banks across Europe. To the extent that such heterogeneity leads to biased systematic risk assessment it would imply distortions in accessing equity capital by banks, which is a major concern in the current environment of persisting uncertainty surrounding the banking industry.

Conclusions

Based on a sample of European banks we test for the determinants of bank's systematic risk in order to add evidence to extant literature and shed light into whether and to what extent betas respond to fundamentals. Our work is also another way to approach the issues relating to incentives to earnings management which have been widely analysed in literature. Our main findings are that bank's betas, apart being responsive to sectorial betas, are affected by the exposure to credit risk which could be measured as the ratio of risk weighted assets on total assets. Current performances are not significant in explaining systematic risk. Fundamentals become a significant factor in crisis periods. In particular, the magnitude of loan loss provisions plays the most significant role. By contrast we do not find evidence of a significant relation of banks' soundness measures with betas. Our work has several implications, in particular at light of current debate on banks recapitalization and supervisors' efforts to strengthen bank resilience. Other relevant implications, in particular across European countries, are related to the efforts of the European Banking Authority to harmonize the regulatory framework of forbearance practices and non-performing loans definitions. There remains room for future research investigating the impact of new pieces of regulation on capital requirements (Basel III) and forbearance practices on systematic risk assessment.

References

- [1] Ahmed, A. S., Takeda, C., Thomas, S. (1999) Bank loan loss provisions: a reexamination of capital management, earnings management and signaling effects. *Journal of accounting and economics*, 33(1) 1-25
- [2] Anandarajan, A., Hasan, I., McCarthy, C. (2006) The use of loan loss provisions for capital management, earnings management and signalling by Australian banks. Bank of Finland Research Discussion Papers, 23
- [3] Beaver, W.H., P. Kettler, Scholes M. (1970 October) The Association Between Market-Determined and Accounting-Determined Risk Measures. *The Accounting Review*.
- [4] Beaver W. H., Engel E.E. (1996), Discretionary behavior with respect to allowances for loan losses and the behavior of security prices, in *Journal of accounting and economics*, vol. 22, n. 1-3, pp. 177-206
- [5] Bhat V. N. (1996), Banks and income smoothing: an empirical analysis, in *Applied financial economics*, vol. 6, n. 6, pp. 505-510
- [6] Borde, S. F., Chambliss, K., Madura, J. (1994) Explaining variation in risk across insurance companies. *Journal of Financial Services Research*, 8(3), 177–191.
- [7] Chance, D. (1982 autumn) Evidence of a Simplified Model of Systematic Risk. *Financial Management*, 53-63.
- [8] Di Biase, P., D’Apolito, E. (2012) The Determinants of Systematic Risk in the Italian Banking System: A Cross-Sectional Time Series Analysis, *International Journal of Economics and Finance*, 4(11).
- [9] Dyl, E.A., Hoffmeister, A note on dividend policy and beta. *Journal of Business Finance & Accounting*, 13(1), 107-115.
- [10] Fama, E. F., French, K. R. (2004) The Capital Asset Pricing Model: Theory and Evidence. *The Journal of Economic Perspectives*, 18 (3), 25-46.
- [11] Gahlon, J.M., Gentry, J.A. (1982) On the Relationship Between Systematic Risk and the Degrees of Operating and Financial Leverage. *Financial Management*, 11, 15-23.
- [12] Greenawalt, M. B., Sinkey, J. F. Jr. (1988) Bank loan loss provisions and the income-smoothing hypothesis: an empirical analysis, 1976-1984. *Journal of financial services research*, 1(4), 301-318
- [13] Griffin, P. A., Wallach, S. J. R. (1991) Latin American lending by major U.S. banks: the effects of disclosures about nonaccrual loans and loan loss provisions. *The accounting review*, 66(4), 830-846
- [14] Kanagaretnam, K., Lobo, G.J., Yang, D.H. (2005) Determinants of signaling by banks through loan loss provisions. *Journal of Business Research*, (58), 312-320.
- [15] Leventis, S., Dimitropoulos, P. E., Anandarajan, A. (2012) Signalling by banks using loan loss provisions: the case of the European Union. *Journal of Economic Studies*, 39 (5), 604-618
- [16] Logue, L., Merville, J. (1972) Financial policy and market expectations. *Financial Management*, 1(3), 37-44.
- [17] Ma, C. K. (1988) Loan loss reserves and income smoothing: the experience in the U.S. banking industry. *Journal of business finance & accounting*, 15(4), 487-497.
- [18] Rosenberg, B., McKibben, W. (1973) The Prediction of Systematic and Specific Risk in Common Stocks. *The Journal of Financial and Quantitative Analysis*, 8(2), 317-333.

**Does the volatility of interest rates affect the value of investment projects?
A real option investigation**

Luca Vincenzo Ballestra

Dipartimento di Economia
Seconda Università di Napoli
Corso Gran Priorato di Malta 1
81043 Capua

Graziella Pacelli
Davide Radi*

Dipartimento di Management
Università Politecnica delle Marche
Piazzale Martelli 8
60121 Ancona

* *Corresponding author. Email: dradi@univpm.it*

Does the volatility of interest rates affect the value of investment projects? A real option investigation

Abstract

One of the most challenging issues in management is the valuation of strategic investments. Indeed, there are several kinds of projects, for example those concerning brand extension, R&D and IT, that are strongly affected by uncertainty, see e.g. Santos et al. (2014), Kalhagen and Elnegaard (2002), Charalamopoulos et al. (2011), Manley and Niquidet (2010), Bernardo et al. (2012) and Baldi and Trigeorgis (2009).

When undertaking projects such as the aforementioned ones, which are characterized by a long-term horizon, a firm has also to face the risk due to the interest rates. In fact, interest rates do not remain constant over time but experience up-and-down movements and volatility that may become significant especially in the long run. In this work, we propose to value investments subject to interest rate risk using a Real Option approach, see, e.g., Schulmerich (2010). In particular, we model interest rates according to a stochastic process of Vasicek type and we calibrate it to the Euribor/Eurirs indexes. Such a process is then integrated in a Black-Scholes framework, which allows us to obtain an explicit formula for valuing various kinds of investment strategies (such as option to defer and option to expand). A numerical application is presented that illustrates the proposed real option approach from the practical point-of-view.

1. Introduction

Real options represent a tool for valuing investment projects that offer the managerial flexibility to postpone the decision to invest at a future time, see e.g. Santos et al. (2014), Kalhagen and Elnegaard (2002), Charalamopoulos et al. (2011), Manley and Niquidet (2010), Bernardo et al. (2012), and Baldi and Trigeorgis (2009).

As decisions made at a future time depend on market conditions that could be significantly different from the current ones, when valuing investments characterized by a long term horizon it is important to take into account the presence of stochastic interest rates. This topic has raised increasing interest especially in the last years, when, due to the financial crisis, interest rates have become very volatile. The issue of real option pricing under stochastic interest rates has also been considered in Schulmerich (2010), where a numerical approximation method based on a binomial tree is proposed.

In the present work we assume that interest rates evolve according to one of the most popular stochastic interest rate models in finance, namely the Vasicek model. This allows us to price real options by means of an exact analytical formula, so that the use of numerical approximation can be avoided.

Moreover, we calibrate the parameters of the Vasicek model to the Euribor/Eurirs indexes and we analyze the effect of the stochastic interest rates on a benchmark real option problem, see Kumar (1996). Our analysis reveals that the influence of the stochastic interest rates on the investment valuation strongly depends on the correlation between the interest rates themselves and the net present value of the cash inflows, on the time to maturity and on the volatility of the future cash inflows. In particular, the stochastic interest rates can substantially change the real option value when the correlation parameter, the time to maturity and the volatility of the future cash inflows are large.

The paper is organized as follows: In Section 2 the real option pricing models under both constant and Vasicek interest rates are described; in Section 3 an application problem is considered and the effect of the stochastic interest rates is analyzed; in Section 4 some conclusions are drawn and the main future directions of research are outlined.

2. Option pricing under constant and stochastic interest rates

Valuing investment decisions requires us to calculate the expected net present value of the future cash inflows S_T , minus the investment cost C_T . Therefore, if we take into account the possibility of not running the project if the economic conditions at maturity T are not favorable, we have to compute:

$$E \left[e^{-\int_{t_0}^T r_t dt} \max(S_T - C_T, 0) \right]. \quad (1)$$

The above expected value can be calculated using the Black-Scholes model (Black and Scholes (1973)), according to which the future cash inflows resulting from the investment to be valued follow the geometric Brownian motion:

$$dS_t = \alpha S_t dt + \sigma S_t dZ_{1,t}, \quad (2)$$

where α and σ are the (constant) drift and the (constant) volatility of the future cash inflows, respectively, and $Z_{1,t}$ is a standard Wiener process. In addition, the spot interest rate, which we denote r_f , is assumed to be constant. Moreover, let C_T be the cost of the investment to be made at a future date T , so that $\tau = T - t_0$ represents the so-called time to maturity, t_0 being the current time. Then, under these assumptions, the expected value (1) is given by the popular Black-Scholes formula:

$$V_{BS}(\tau, S) = S_{t_0} N(d_1) - C_T e^{-r_f \tau} N(d_2), \quad (3)$$

where

$$d_1 = \frac{\ln\left(\frac{S_{t_0}}{C_T}\right) + \left(r_f - \frac{1}{2}\sigma^2\right)\tau}{\sigma\sqrt{\tau}}, \quad (4)$$

$$d_2 = d_1 - \sigma\sqrt{\tau}.$$

Let us observe that in (3) $e^{-r_f \tau}$ is equal to the price P_{BS} a bond that pays one Euro at the future time T , i.e. under the assumption of constant interest rates, we have

$$P_{BS} = e^{-r_f \tau}. \quad (5)$$

Nevertheless, the dynamics of the interest rates in the last decade suggests that they may experience significant random variations and volatility. Therefore, in order to perform an accurate investment valuation in a world dominated by turbulent financial markets, it is essential to take into account the stochastic dynamics of interest rates, which is done in the present paper. In particular, we assume that the spot interest rate follows a mean-reverting process of Vasicek type:

$$dr_t = q(m - r_t)dt + v dZ_{2,t}, \quad (6)$$

where q , m and v are the so-called speed of mean reversion, long-run mean and instantaneous volatility, respectively (q , m and v are assumed to be constant), and $Z_{2,t}$ is a standard Wiener process having a constant correlation ρ with $Z_{1,t}$.

Based on the geometric Brownian motion (2) and the Vasicek process (6), the expected value (1) can be determined using the closed-form solution as obtained in Rabinovitch (1989):

$$V_{RAB}(\tau, S_{t_0}, r_{t_0}) = S_{t_0} N(D_1) - C_T P_{RAB}(\tau, r_{t_0}) N(D_2), \quad (7)$$

where

$$\begin{aligned} D_1 &= \frac{\left(\ln \left(\frac{S_{t_0}}{C_T P_{RAB}(\tau, r_{t_0})} \right) + \frac{\mathcal{G}}{2} \right)}{\sqrt{\mathcal{G}}}, \\ D_2 &= D_1 - \sqrt{\mathcal{G}}, \\ \mathcal{G} &= \sigma^2 \tau + \left(\tau - 2B + \frac{(1 - e^{-2q\tau})}{2q} \right) \left(\frac{v}{q} \right)^2 - \frac{2\rho\sigma(\tau - B)v}{q}, \end{aligned} \quad (8)$$

and $P_{RAB}(\tau, r_{t_0})$ is the price at time t_0 of a bond that pays one Euro at time T computed based on the stochastic process (6). The value of $P_{RAB}(\tau, r_{t_0})$ has been obtained by Vasicek (1977):

$$P_{RAB}(\tau, r_{t_0}) = A e^{-Br_{t_0}}, \quad (9)$$

where

$$\begin{aligned} B &= \frac{1 - e^{-q\tau}}{q}, \\ A &= e^{k(B-\tau) - \frac{v^2 B^2}{4q}}, \\ k &= m + \frac{v\lambda}{q} - \frac{v^2}{2q^2}, \end{aligned} \quad (10)$$

and λ is the market price of risk. For the sake of simplicity, following a common approach, in the present work we set $\lambda = 0$. It is worth noting that formula (7) differs from the Black-Scholes one as the term \mathcal{G} takes into account not only the volatility of the future cash inflows, but also the volatility of the interest rate and its covariance with the future cash inflows (compare (4) and (8)).

3. Effect of the interest rate volatility: An empirical analysis

In this section we consider an application problem and we examine the differences between the case of constant interest rates (formula (3)) and the case of stochastic interest rates (formula (7)).

To perform an accurate analysis of the effect of the stochastic interest rates, the parameters of the Vasicek model are calibrated to real market data. Specifically, we have considered the Euribor/Eurirs indexes in a time period ranging from one month to thirty years, and we have obtained:

$$r_{t_0} = 0.0013, \quad q = 0.41, \quad m = 0.0094, \quad \nu = 0.0123. \quad (8)$$

In order to compare the project valuation obtained using the Black-Scholes formula with that obtained using the Rabinovitch formula, we impose that (5) and (9) yield the same bond value. By doing that the interest rate to be

used in the Black-Scholes formula is obtained as $r_f = -\frac{\ln\left(P_{RAB}(\tau, r_{t_0})\right)}{\tau}$, where $P_{RAB}(\tau, r_{t_0})$ is the bond price calculated according to (9).

The real option parameters are taken from Kumar (1996):

$$S_{t_0} = 20000, \quad C_T = 15000, \quad \tau = 5, \quad \sigma = 0.4. \quad (9)$$

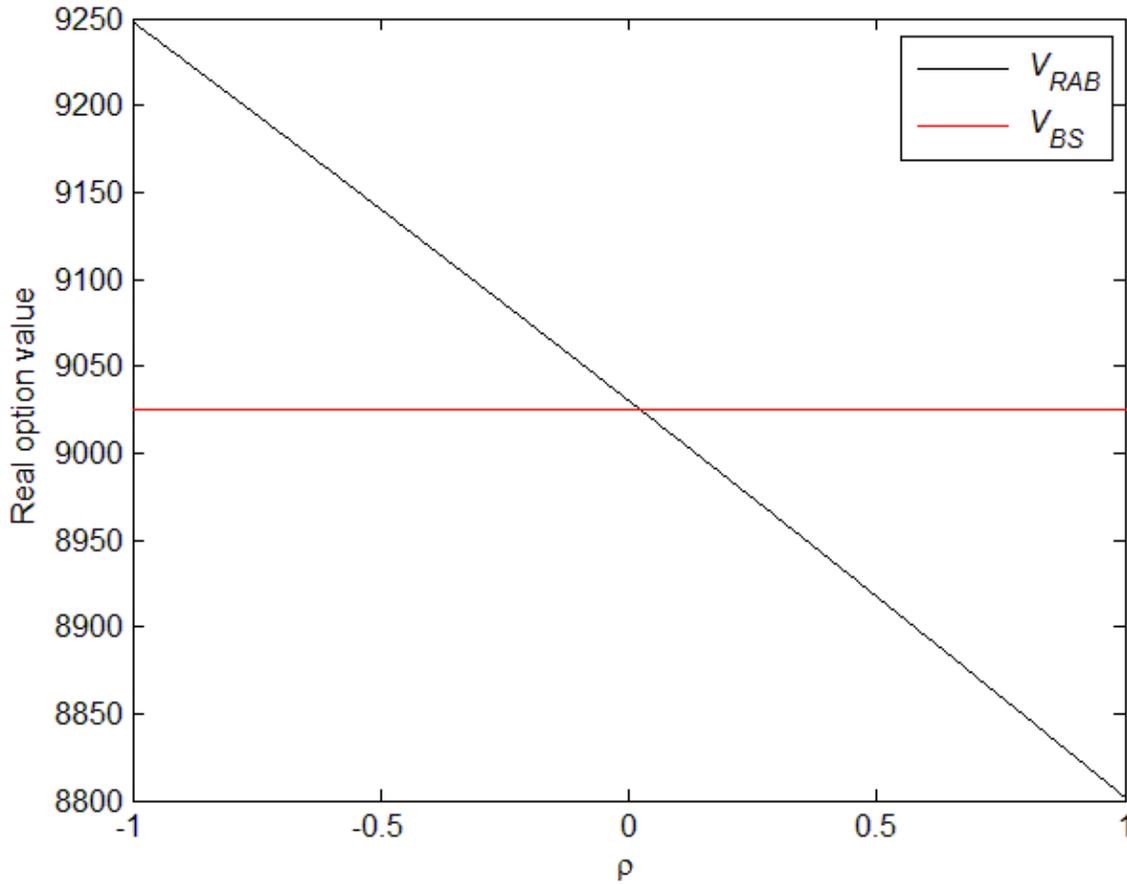


FIGURE 1. EFFECT OF THE CORRELATION COEFFICIENT ON THE REAL OPTION VALUE.

Figure 1 shows the real option price for different values of the correlation coefficient. We note that for values of ρ that are small in magnitude (say, approximately, $-0.1 < \rho < 0.1$) there is not any significant difference between the Black-Scholes formula and the Rabinovitch formula. Instead, for values of ρ that are negative and large in magnitude (say, approximately, $\rho < -0.75$), the Black Scholes formula significantly underprices the real option, i.e. $V_{BS} < V_{RAB}$, whereas for values of ρ that are positive and large in magnitude (say, approximately, $\rho \geq 0.75$) the Black Scholes formula significantly overprices the real option, i.e. $V_{BS} > V_{RAB}$.

This fact has the following economic explanation: if ρ is negative and large in magnitude then to the higher values of S_T (those that are bigger than C_T and hence concur to determine the option value, see (1)) correspond lower interest rates and therefore the present value of the investment tends to be higher.

Let us now vary the time to maturity. The results obtained are reported in Figure 2. Again, as experienced before, for values of ρ that are small in magnitude there is not any significant difference between the Black Scholes formula

and the Rabinovitch formula. Instead, for values of ρ that are negative and large in magnitude we have $V_{BS} < V_{RAB}$ and the relative difference increases as τ increases, whereas for values of ρ that are positive and large in magnitude we have $V_{BS} > V_{RAB}$ and the relative difference decreases as τ increases. However, we can see that the differences between V_{BS} and V_{RAB} are appreciable only for times to maturity larger than approximately four years (we are assuming that the relative difference between V_{RAB} and V_{BS} is appreciable only if it is greater than 2% in magnitude).

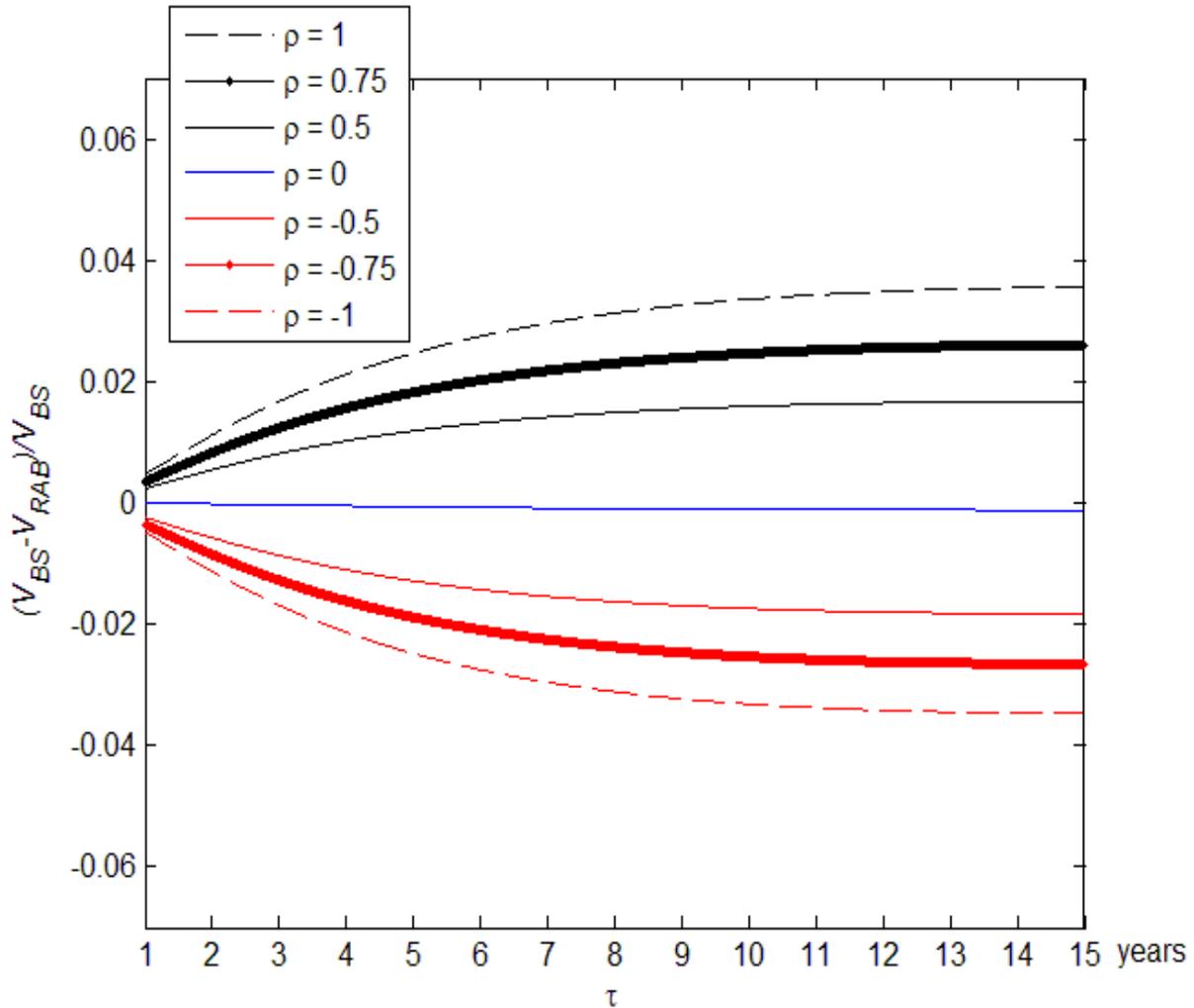


FIGURE 2. GAP IN THE VALUE OF THE REAL OPTION BETWEEN THE BLACK-SCHOLES FORMULA AND THE RABINOVITCH FORMULA AS A FUNCTION OF THE TIME TO MATURITY.

Let us conclude the sensitivity analysis by varying the volatility of the future cash inflows. This is an important aspect as σ is a characteristic parameter of any project and it is not easy to determine.

As we can observe by comparison of Figure 3, Figure 4 and Figure 5, the qualitative shape of the curves obtained does not significantly depend on the time to maturity. On the contrary, the time to maturity can significantly affect the value of the relative difference between V_{BS} and V_{RAB} . In particular, if $\tau = 1$ and $|\rho| = 1$ the relative difference between V_{BS} and V_{RAB} has a maximum equal to approximately 0.005 and a minimum equal to approximately -0.005 , whereas if $\tau = 15$ and $|\rho| = 1$ the relative difference between V_{BS} and V_{RAB} has a maximum equal to approximately 0.06 and a minimum equal to approximately -0.06 .

However, the relative difference between V_{BS} and V_{RAB} are significant, i.e. greater than 2% in magnitude, only for values of τ , ρ and σ which are large in magnitude, say $\tau \geq 5$, $\rho \leq -0.75$ or $\rho \geq 0.75$ and $\sigma \geq 0.15$.

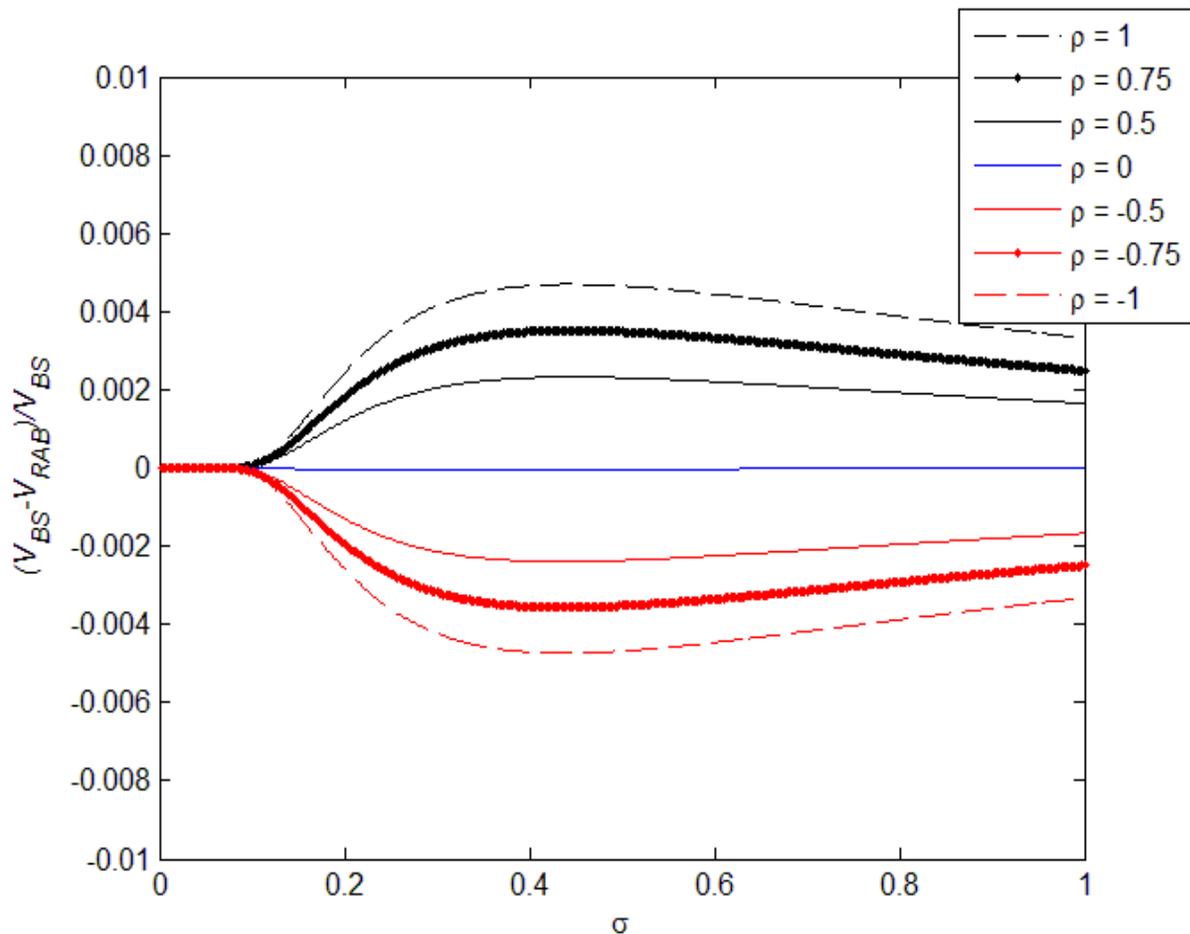


FIGURE 3. GAP IN THE VALUE OF THE REAL OPTION BETWEEN THE BLACK-SCHOLES FORMULA AND THE RABINOVITCH FORMULA AS A FUNCTION OF THE VOLATILITY OF THE FUTURE CASH INFLOWS, $\tau = 1$.

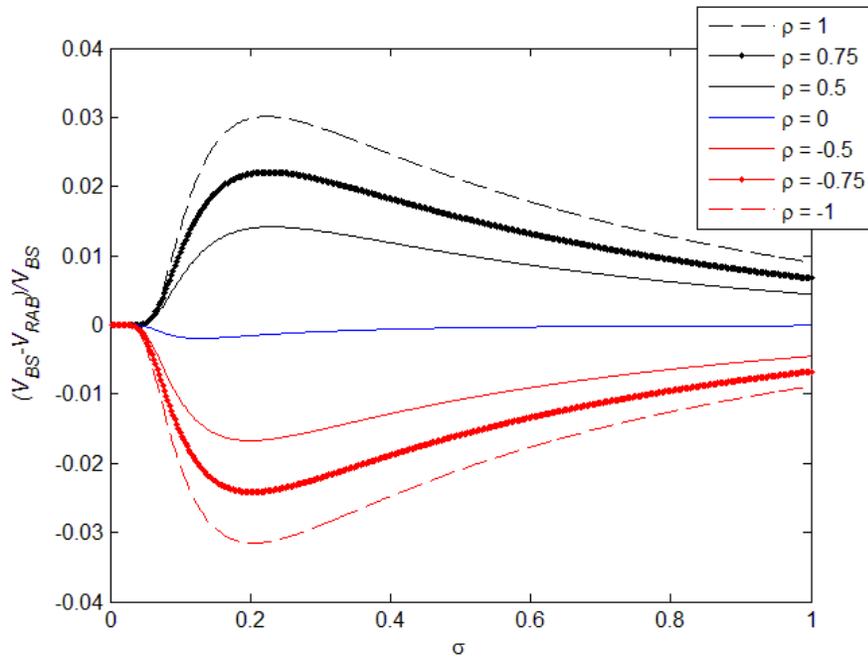


FIGURE 4. GAP IN THE VALUE OF THE REAL OPTION BETWEEN THE BLACK-SCHOLES FORMULA AND THE RABINOVITCH FORMULA AS A FUNCTION OF THE VOLATILITY OF THE FUTURE CASH INFLOWS, $\tau = 5$.

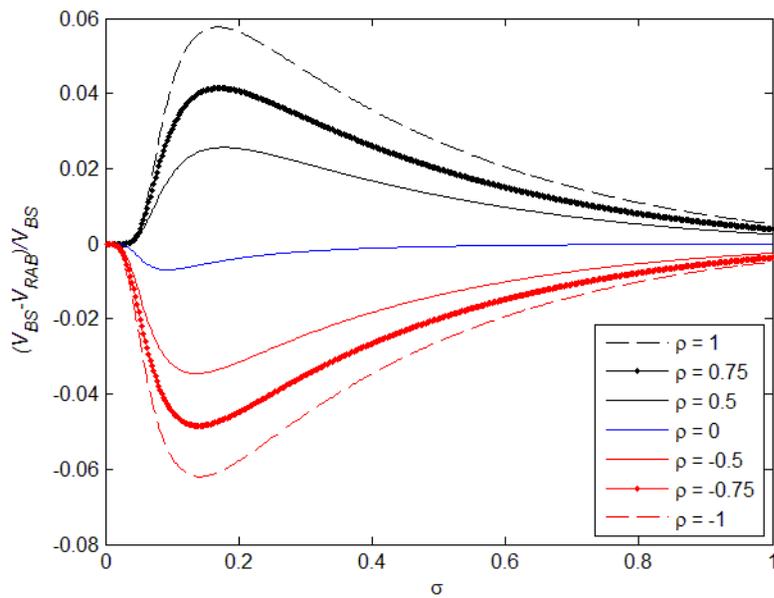


Figure 5. Gap in the value of the real option between the Black-Scholes formula and the Rabinovitch formula as a function of the volatility of the future cash inflows, $\tau = 15$.

4. Conclusions

In this paper, we propose a real option approach which also takes into account the uncertainty due to the interest rates.

In particular, by employing the popular Vasicek model, which allows us to use the closed-form solution obtained by Rabinovitch (1989), we investigate the effect of the interest rate volatility on the valuation of investment projects. This analysis is done by considering an application case related to the problem described in Kumar (1996).

The results obtained reveal that the stochastic interest rates can substantially affect the project valuation when the correlation between the stochastic interest rates themselves and the net present values of the cash inflows, the time to maturity and the volatility of the future cash inflows are large.

These findings indicate that a deeper analysis of the effect of the interest rate volatility on the value of strategic investments is worth to be done. In particular, it could be interesting to investigate how stochastic interest rates impact the valuation of projects different from the one considered in this paper. This will be the subject of a future work.

References

- [1] F. Baldi and L. Trigeorgis (2009). A real options approach to valuing brand leveraging options: How much is Starbucks brand equity worth?. Working Paper, available at <http://www.fma.org/Reno/Papers/StarbucksBrandValuation.pdf>
- [2] A. E. Bernardo, B. Chowdhry and A. Goyal (2012). Assessing project risk. *Journal of Applied Corporate Finance*, 24(3), 94-100.
- [3] F. Black and M. Scholes (1973). The pricing of options and corporate liabilities. *The Journal of Political Economy*, 81(3), 637-654.
- [4] G. Charalampopoulos, D. Katsianis and D. Varoutas (2001). The option to expand to a next generation access network infrastructure and the role of regulation in a discrete time setting: A real options approach. *Telecommunications Policy*, 35(9-10), 895-906.
- [5] B. Manley and K. Niquidet (2010). What is the relevance of option pricing for forest valuation in New Zealand?. *Forest Policy and Economics*, 12(4), 299-307.
- [6] K. Kalhagen and N. Elnegaard (2002). Assessing broadband investment risk through option theory. *Teletronikk*, 98(2-3), 51-62.
- [7] R.L. Kumar (1996). A note on project risk and option values of investments in information technologies. *Journal of Management Information Systems*, 13(1), 187-193.
- [8] R. Rabinovitch (1989). Pricing stock and bond options when the default-free rate is stochastic. *Journal of Financial and Quantitative Analysis*, 24(4), 447-457.
- [9] L. Santos, I. Soares, C. Mendes and P. Ferreira (2014). Real options versus traditional methods to assess renewable energy projects. *Renewable Energy*, 68, 588-594.
- [10] M. Schulmerich (2010). Real Options Valuation: The Importance of Interest Rate Modelling in Theory and Practice. Second Edition, Springer.
- [11] O. Vasicek (1977). An equilibrium characterization of the term structure. *Journal of Financial Economics*, 5(2) 177-188.

Empowerment through E-Governance in Developing Economies: The Case of India

*Sivakumar Venkataramany, svenkata@ashland.edu
Ashland University, Ashland, Ohio, USA*

Empowerment through E-Governance in Developing Economies: The Case of India

Abstract

This paper focuses on strategies undertaken in India and other developing economies to achieve empowerment of all stakeholders, particularly the rural poor through context oriented policies of e-governance. With a strong emphasis on principles of governance, the government's involvement in the implementation of information and communication technology in all levels of central and state governments is analyzed. The goal of the digital economy is to have a universal reach. Additional reforms are suggested for the limitations in the current measures.

Introduction

The exponential growth of technology, internet, and mobile connectivity has prompted businesses and governments to offer their services with increased efficiency while their customers and citizens have started demanding enhanced output and value. The information age has paved the way for emphatic democratic participation and requirement of information with full disclosure cum transparency. India's information technology (IT) sector employs more than a million people with \$17 billion revenues per annum but, yet the benefits of the *digital economy* are somewhat limited to select urban areas. So, the other areas particularly, in poor states have not derived any such advantages. This results in not only a rural-urban digital divide but also a new urban-urban digital divide among different states [Das and Narayanan, 2005]. The United Nations (UN) ranked India as having minimal E-government capacity with a meager score of 1.29 in 2001 but considered the country to have a promising interactive presence. The UN observed that India had benefited from the combination of political leadership and professional civil service¹. The study also identified the enormous infrastructure and human capital challenges for India as it continues to lose qualified personnel to other countries. The need for e-governance stems from its potential benefits such as, efficiency, improved services, better accessibility of public services, and transparency [Gajendra, Xi, and Wang, 2012].

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) defines governance as "the exercise of political, economic and administrative authority in the management of a country's affairs' and e-governance as "the performance of this governance via the electronic medium in order to facilitate an efficient, speedy and transparent process of disseminating information to the public, and other agencies, and for performing government administration activities". The concept of e-governance emphasizes governance and not technology. Therefore, India desires to maintain 20% of its efforts in technology while the remaining 80% would involve management. Estimates indicate that 35% of e-government projects are likely to be total failures, 50% to be partial failures and the remaining 15% will be successful [Heeks, 2003]. The reasons for such failures are attributed to direct and indirect financial costs, opportunity costs, political costs, beneficiary costs, and future costs. This paper focuses on strategies undertaken in India to achieve empowerment of all stakeholders, particularly the rural poor through context oriented policies of e-governance. With a strong emphasis on principles of governance, the government's involvement in the implementation of information and communication technology in all levels of central and state governments is analyzed. The goal of the digital economy is to have a universal reach. Additional reforms are suggested for the limitations in the current measures.

Literature Review

Traditional businesses and industrial houses are embracing the digital economy with alacrity thus redefining the business landscape forthwith to create new markets and sectors for the existing business line. They are ready to reap the benefits of lower inventory costs, instant access to distributors and suppliers, faster response time, and, greater

¹ Benchmarking E-government: A Global Perspective – Assessing the Progress of the UN Member States, May 2002, Page 28

customer satisfaction [Sharma, 2000]. The customer-centric digital economy needs business leaders and strategic thinkers to develop a new skill-set to recognize the evolving future and make critical decisions for the organization [Srinivasan and Balasubramanian, 2003]. Governments in developing economies are vastly encouraged by the advent of technology-based banking services round the clock in industrialized societies. Even weaker economies such as Ghana, Tanzania, and Kenya have introduced national clearing house, decentralized district governance, and reduction of corruption respectively through enabling information technology in their operations [Backus, 2001]. Reforms at the grassroots level in local administrations in India have created both direct and representative democratic channels that place administrative and fiscal development power in such individual village administrations have been deemed Empowered Deliberative Democracy (EDD) [Fung and Wright, 2001]. In general, public governance revolves around social, economic, cultural, political and legal dimensions of the environment. The technology conditions have helped India reach beyond the common parameters. The paradigm shifts in public organizations by the application of e-Government technology are ultimately aimed at improving functional efficiency and effectiveness of the government organizations [Haque and Pathrannarakul, 2013].

After a comparative analysis of key policy statements on e-government reform made in the US, British, and EU initiatives, Chadwick and May cite the marginalization of the internet by the government use of technology and conclude that “an executive-driven, “managerial” model of interaction has assumed dominance at the expense of “consultative” and “participatory” possibilities” [Chadwick and May, 2003]. Definitions of e-government, e-administration and e-governance are wide-ranging. The importance of distinguishing between e-government and e-governance for both scholarship and practice is addressed in depth [Bannister and Connolly, 2012]. E-government is narrow in scope as it points out to a government offering its services and functions to its citizens through technological platforms and may be seen in e-tax and e-health. E-governance is broad in approach as it deals with the use of technology to manage resources in the implementation of policy and directed towards all stakeholders.

The majority of functions of an e-government revolve around inter-organizational relationships covering policy coordination, implementation, and public service delivery. E-administration describes intra-organizational relationships that govern policy development, organizational activities, and knowledge management. E-governance focuses on the interaction among citizens, governmental institutions, and the bureaucracy and thus is based on a democratic process, openness of the government, and the transparency in decision-making at all levels. The relationship between e-government and e-governance rests on static, dynamic and integrated strategy clusters and so, are supply-based, demand-driven and interactive respectively [Haiyan, 2011]. Human factors unfortunately act as hindrances in the adaptability of e-governance initiatives in the public sectors of India and so considering those factors before implementation is critical to reap the benefits of good governance [Mishra and Sharma, 2013]. The view of treating e-government projects as opportunities for innovation must extend to wider innovation to create more democratic forms of governance [Navarra and Cornford, 2012].

The Indian Context

India has about 150 million fixed broadband internet subscribers for a penetration of just over 10% which is dwarfed by 80% penetration in the United States. The country makes up for that lapse with more than 865 million mobile phone subscribers which accounts for a penetration of about 70%. Two-thirds of the population being in its thirties, the digital revolution is transforming the society at a fast pace [Dahiya, 2013]. This has led to the government implement its citizen-centric initiatives through computerization of all its departments with a sense of service orientation and transparency. The evolution of e-governance has brought all the services offered by the central and state governments closer to all citizens alike with a collective vision and shared cause. The gap between a developing economy and an industrialized society with regards to e-government is shown in Table 1.

TABLE 1: INDIA COMPARED TO THE US FOR E-GOVERNMENT INDICATORS (2012)

	India	USA
E-government development index	0.3829	0.8687
World ranking in e-gov. development	125	5
E-information	25	75
E-consultation	14	78
E-decision making	17	50
Extent of e-participation	15	74

Source: United Nations E-Government Survey 2012

A series of broad steps taken by the government in the past four decades for a better and efficient use of technology is listed in Table 2. The main thrust for e-Governance was provided by the launching of the National Satellite-based Computer Network (NICNET) in 1987. NICNET was extended via the State capitals to all district headquarters by 1990. In the ensuing years, with ongoing computerization, telephone connectivity, and internet connectivity, the government established a large number of e-Governance initiatives, both at the central and state levels. The Department of Electronics and Information Technology formulated the National e-Governance Plan (NeGP) in 2006 to boost the e-Governance process and offer citizen services, business services, and government services. All public services are delivered through electronic platforms thus getting the name e-transaction.

TABLE 2: MAJOR INITIATIVES IN INDIA FOR ICT PROLIFERATION

Year	Steps / Establishment of Unit	Objective(s)
1970	The Department of Electronics	Increasing importance of technology
1977	The National Informatics Centre (NIC)	First step toward e-governance Focus on information and communication
1980s	Use of computers	Manage databases and process information
1987	National Satellite-based Computer Network (NICNET)	Main thrust for e-governance
1987	District Information System of the National Informatics Centre	All district offices linked
1990	Extension of NICNET to State capitals and district headquarters	
1998	National Task Force on IT and Software Development	Assimilate and process all spheres of knowledge
1999	Union Ministry of IT	
2000	12-point agenda for e-governance identified	
2006	National e-governance plan (NeGP)	

Source: "Promoting e-governance: The Smart Way Forward", Chapter 4, Government of India, Second Administrative Reforms Commission, 11th Report, December 2008

They use information and communications technology (ICT) tools to improve access, enhance transparency, and reduce response time. They provide visibility for the national and state level services of e-governance projects and present status on actual utilization of various systems at various locations. Service is requested through electronic means (self-access or assisted access) including mobile devices, workflow and the approval process is electronic, database is electronic (digitized), and service delivery is electronic. The purpose and scope of the e-transactions are to improve access, enhance transparency, and reduce response time. In the recent two months of January and February of 2014, there have been 162 million e-transactions at the central level (286 million at the state level) with 8,200 per each 1,000 population. This is a clear evidence of the mammoth success that the e-transactions have generated. The categories of e-transactions span over the major categories of statutory and non-statutory services, utility bill

payments, business-to-citizen (B2C) services, informational services, social benefits and mobile governance. Table 3 indicates the degree of reach of such e-governance services to the population through the availability of mobile connections along with a comparison to select markets. The status of India in a growing global mobile market is captured in Figure 1.

ICT governed programs and initiatives are intended to curb, cut, mitigate, and control corruption [Ionescu, 2013]. Citizens have overcome the perils of bribes and corruption prevalent in the bureaucracy at all levels. They may now use e-transactions for obtaining certificates, licenses and permits, collect land revenue, participate in integrated finance management services, make payments for residential tax, commercial tax and utilities, receive social welfare and pension, use passport & visa services, derive benefits from financial inclusion, and apply for skill development, and state specific services. Such expanded services from a country ranked seventh in the world behind major industrialized countries has accomplished improved planning, monitoring mechanisms, cost savings through rationalization, and effective administration and delivery of a wide variety of public services. This is the true empowerment of all citizens especially, the rural poor.

TABLE 3: INDIA COMPARED TO SELECT COUNTRIES FOR MARKET PENETRATION (%)

Ratio of Mobile Connections to Population			
	2010	2011	2012
Bangladesh	48.82	61.19	70.09
Bhutan	51.70	66.11	74.15
Brazil	105.34	124.73	133.35
China	62.63	72.24	81.85
France	97.43	100.39	106.73
Germany	132.40	139.08	138.21
India	61.00	71.51	68.26
Nepal	30.93	44.45	55.24
Pakistan	59.09	63.76	67.74
Russian Federation	153.88	160.23	162.60
Singapore	142.05	148.70	152.91
Sri Lanka	84.57	93.35	104.71
USA	100.36	107.86	109.49

Source: GSMA Intelligence

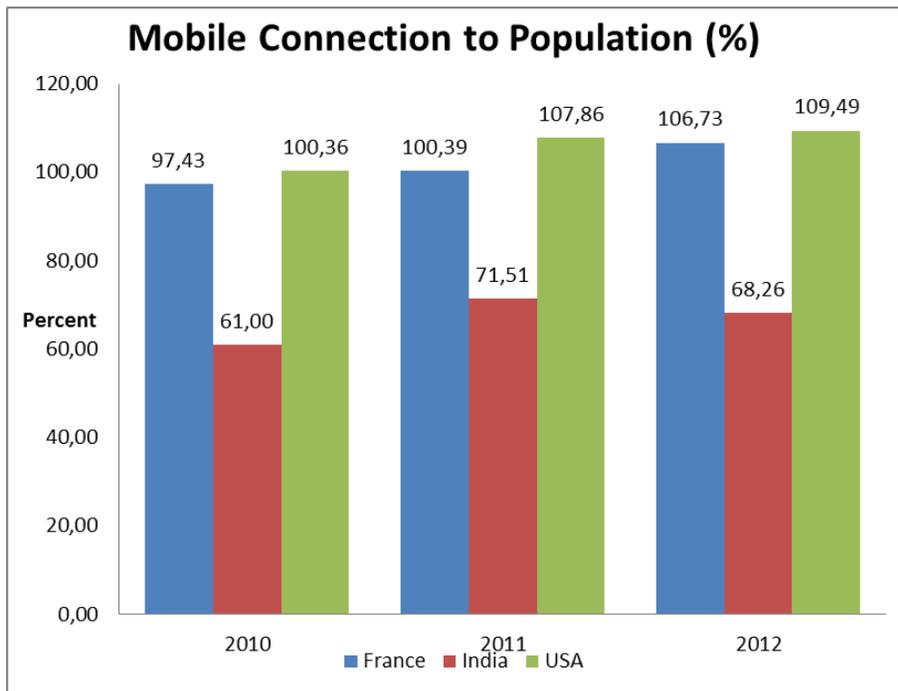


FIG. 1: INDIA COMPARED TO FRANCE AND THE USA FOR MARKET PENETRATION

Source: The Mobile Policy Handbook 2013, GSMA, UK

National E-Governance Plan

The National E-Governance Plan (NeGP) is an integration of a collective vision and shared purpose. It takes a holistic view of diverse e-governance efforts undertaken and highlights the central and state governments making a combined effort to implement major initiatives. They may be broadly classified into three categories, namely, government to citizen (G2C), government to business (G2B), and government to government (G2G) initiatives. The G2C initiatives comprised of computerization of land records and service delivery thereof for establishing ownership, title, transfer, and tenancy besides offering solution to grievances and complaints. Some of the G2B initiatives were intended to provide congenial legal environment, expedite processes and provide relevant information to businesses. E-procurement and e-filing of statutory documents fall under this category. G2G initiatives are meant to increase the efficiency with which internal government processes share information among themselves to assist in the decision-making. The government has identified 31 projects as Mission Mode Projects (MMPs) where each one focuses on one key aspect of e-governance. Banking, agriculture, pension, immigration, foreign direct investment for e-trade, and insurance are some examples of MMPs. Some of the key benefits of e-governance accomplished through these measures are shown in Table 4.

Challenges, Suggested Reforms and Conclusion

According to the UN, for the majority of Asian countries, the e-government environment is weak and addressing the infrastructure gaps should be their top priority². The major reason for individual projects' failure is due to the gap between the design of technology and the reality of its context of application [Dada, 2006]. Certain e-governance applications have failed as they have been implemented with a techno-centric bias instead of governance-centric initiative [Saxena, 2005]. Failures also stem from the use of existing technology from the industrialized societies in developing countries whose needs are vastly different [Brewer, 2005]. There are numerous criticisms against such e-governance initiatives. First, skeptics raise questions as to whether e-governance can eradicate poverty, reduce inequality and satisfy basic human needs in a poor country like India [Haque, 2002]. The government may overcome such criticisms by suitable reforms. Secondly, critics stir up a fear that information technology may end up creating the equivalent of India's deeply divisive caste system in the 21st century [Hariharan, 2002]. Internet connectivity and mobile connectivity are tools to accomplish true success of democracy as both are above economic status and social conditions. Adopting a centralized approach for the management of knowledge, documentation, grievances and human resources, and a decentralized approach for core applications such as property transfer cum registration, vehicle registration, and building approval is suggested to form a unified digital framework for effective e-governance operation [Rao, 2013]. Public sector managers are challenged to perform a balancing act between maintaining openness as demanded by e-governance and also achieving private-sector efficiency. There is thus a need to develop theoretical frameworks, models, and training to help managers accomplish the dual goal [Halachmi and Greiling, 2013].

TABLE 4: CONTRIBUTION TO E-GOVERNANCE BY ICT-ENABLED GOVERNANCE

Internal Benefits	External Benefits
Avoidance of duplication	Faster service delivery
Reduction in transaction costs	Greater efficacy
Simplified bureaucratic procedures	Increased flexibility of service use
Greater efficiency	Innovation in service delivery

² Benchmarking E-government: A Global Perspective – Assessing the Progress of the UN Member States, May 2002, Page 43

Better coordination and communication	Greater participation
Enhanced transparency	Greater citizen empowerment
Information sharing by agencies	Citizen participation
Security of information management	

Source: "Promoting e-governance: The Smart Way Forward", Chapter3, Government of India, Second Administrative Reforms Commission, 11th Report, December 2008

The success of any e-government relies upon its sound principles of e-governance. The initial success of the industrialized societies is presently being emulated by developing nations as well. E-governance has a wide appeal among all classes of the country and widespread use of the technology applications would lead to success in the modern era. Implementation of e-governance initiatives are subject to obstacles from (human factors such as computer literacy, technological factors such as infrastructure deficiencies, and other factors that would include cost, systems, and legal infrastructure [Sharma, Mishra, and Mishra, 2011]. The benefits of e-filing income tax returns in India are exclusive to select salary earning stakeholders and so do not appeal to all sections of the society [Singh and Singh, 2013]. The evaluation results of e-governance projects in select regions highlight the need for addressing policy gaps. They also suggest improvements required in capacity building, development of common standards, instituting security guidelines, ensuring quality, completeness, depth and spread of services, coordination and change of mindset [Kalsi and Singh, 2013]. Similar conclusion is drawn in the context of countries in the United Arab Emirates where the low score in e-participation reflects a gap in the mindset of policy makers in government and stakeholders, and the absence of effective application of the principles of good governance [Al Athmay, 2013].

The Government of India has identified that the success of some of the pilot projects were not properly replicated and the need for projects to be context-oriented. Some of the policy recommendations under consideration include building a congenial environment, creating the institutional framework for coordination and sharing of resources and information, identification, prioritization, implementation, monitoring and evaluation of e-governance projects, business process re-engineering, capacity building and creating awareness, developing technological solutions.

References

- [1] Al Athmay, Alaa-Aldin Abdul Rahim, "E-Governance in Arab Countries: Status and Challenges", *Global Journal of Business Research (GJBR)*. 2013, Volume 7, Issue 5, pp. 79-98
- [2] Backus, Michael, "E-Governance and Developing Countries: Introduction and Examples", April 2001, Research Report, The International Institute for Communication and Development
- [3] Bannister, Frank; Connolly, Regina, "Defining E-Governance", *E-Service Journal*, Winter 2012, Volume 8, Issue 2, pp. 3-25
- [4] Brewer, E., "The Case for Technology in Developing Regions", *Computer*, Volume 38, Issue 6, May 2005, pp. 25-38
- [5] Chadwick, Andrew; May, Christopher, "Interaction between States and Citizens in the Age of the Internet: E-Government in the United States, Britain, and the European Union", *Governance*, April 2003, Volume 16, Issue 2, pp. 271-300
- [6] Dada, Danish, "The Failure of E-Government in Developing Countries: A Literature Review", *The Electronic Journal on Information Systems in Developing Countries*, 2006, Volume 26, Issue 1, pp. 1-10
- [7] Dahiya, Rekha, "Indian Youth and Internet: An Empirical Study", *Journal of Marketing & Communication*, Sep-Dec 2013, Vol. 9 Issue 2, pp. 19-28
- [8] Das, Diganta Kumar; Narayanan, K., "Information and Communication Technology (ICT) and India's Development: Achievements and Challenges Ahead" *Journal of Services Research*, Special Issue, 2005, pp. 93-108
- [9] Fung, Archon, and Wright, Erik Olin, "Deepening Democracy: Innovations in Empowered Participatory Governance", *Politics & Society*, Vol. 29, No. 1, March 2001, pp.5-41
- [10] Gajendra, Sharma, Xi, Bao, and Wang, Qiang, "E-Government: Public Participation and Ethical Issues", *Journal of E-Governance* 2012, Volume 35, Issue 4, pp. 195-204
- [11] Haiyan, Qian, "Citizen-Centric E-Strategies toward More Successful E-Governance", *Journal of E-Governance*, 2011, Volume 34, Issue 3, pp. 119-129
- [12] Halachmi, Arie, and Greiling, Dorothea, "Transparency, E-Government, and Accountability", *Public Performance & Management Review*, June 2013, Volume 36, Issue 4, pp. 572-584
- [13] Haque, Shamsul, M., "E-governance in India: Its Impacts on Relations among Citizens, Politicians and Public Servants", *International Review of Administrative Sciences*, Vol. 68, 2002, pp. 231-250
- [14] Haque, Sirajul; Pathrannarakul, Pairote, "E-Government Towards Good Governance: A Global Appraisal", *Journal of E-Governance*. 2013, Volume 36, Issue 1, pp. 25-34
- [15] Hariharan, Venkatesh, "Is India on the Brink of a Digital Abyss?" Issue Seven: Religion Online & Techno-Spiritualism, *Cyber Sociology*
- [16] Heeks, Richard, "Most eGovernment-for-Development Projects Fail: How Can Risks be Reduced?" Institute for Development Policy and Management, Working Paper Series, Paper 14, 2003, University of Manchester,
- [17] Ionescu, Luminița, "The Impact that E-Government Can Have on Reducing Corruption And Enhancing Transparency", *Economics, Management & Financial Markets*, June 2013, Volume 8, Issue 2, pp. 210-215
- [18] Kalsi, Nirmaljeet Singh; Kiran, Ravi, "E-governance Success Factors", *International Journal of Public Sector Management*, 2013, Volume 26, Issue 4, pp. 320-336
- [19] Mishra, Unnati and Sharma, Manisha, "Human Factors Affecting the Adaptability of E-Governance: The Indian Public Sector", *Journal of E-Governance*, 2013, Volume 36, Issue 3, pp. 136-142
- [20] Navarra, Diego D.; Cornford, Tony, "The State and Democracy after New Public Management: Exploring Alternative Models of E-Governance", *Information Society*, Jan/Feb 2012, Volume 28, Issue 1, pp. 37-45
- [21] Rao, Velamal Ranga, "A Framework for Unified Digital Government: A Case of India", *Journal of E-Governance*, 2013, Volume 36, Issue 1, pp. 35-55
- [22] Saxena, K.B.C. , "Towards Excellence in E-governance", *International Journal of Public Sector Management*, Vol. 18 Issue 6, pp.498 - 513
- [23] Sharma, Dinesh C., "Traditionalists Caught in the Net", *Silicon India*, July 2000, Vol. 4 Issue 7, pp. 42-43

- [24] Sharma, Payal; Mishra, Anshumaan; Mishra, Pavan, "E-Governance in India is the Effectual and Challenging Approach to Governance", *International Journal of Business Management & Economic Research*, 2011, Volume 3, Issue 5, pp. 297-304
- [25] Singh, Harjit; Singh, Hardeep, "E-filing system for tax returns and forms: Landmark e-governance initiative by the government of India", *Journal of E-Governance*, 2013, Volume 36, Issue 3, pp. 125-135
- [26] Srinivasan, N. S.; Balasubramanian, G. "Strategic Thinking: A Neuronal Architectural View", *Vikalpa: The Journal for Decision Makers*, Oct-Dec 2003, Vol. 28, Issue 4, pp. 1-7

End Note

A Review of Theories on Foreign Direct Investment

Alma Zisi alma_zisi@yahoo.com

“Aleksander Moisiu” University, Durrës, Albania

A Review of Theories on Foreign Direct Investment

Abstract

Many researchers have studied foreign direct investments (FDI) due to the nature that have. Many authors have expressed their convictions about FDI in host countries due to the effects that have. In many studies, it is noticed that researchers treated the effects of FDI in host countries, which made them focus more on developing the theories of FDI. Why foreign direct investment are increased in recent years? Which are main priorities that require foreign investors? Which countries choose to invest? What determinants should have countries to absorb FDI? The answers of these questions can be found in the theories of FDIs, some of which are presented in more detail in this paper. Some of the theories that will be treated in the paper are the product cycle theory, the internalisation theory, the eclectic theory etc.

Key words: FDI, theory of FDI,

Introduction

Foreign direct investment is dedicated importance nowadays, due to the role they play. Most governments of developing countries compile stimulatory policy to attract more foreign investors. To understand the complex nature of FDI, it is important to treat some of the main theories. In the first treatment, it is noted that researchers have been critical for the effects of FDI on host countries. In various publications, we find different opinions about foreign direct investment due to the impact they have had, but, in all recent works, we see that FDI affects positively on the economic growth of host countries.

In this paper will be treated several theories, such as product cycle theory, internalisation theories, eclectic theory etc. Because there are many theories and explanations for FDI, it is impossible to identify a single theory to them.

Product cycle theory

The product cycle theory of (Vernon, 1966) explains the interactions between the ownership-specific advantages and location-specific advantages. According to Vernon, the product life cycle passes through these stages: introduction (new products), maturity, standardization and decline. The product life cycle theory describes best the role of technology in international trade. This theory treats the role of US multinational enterprises in the 1950s, which given the fact that owned advanced technology started to enter even in European markets.

According to this theory in the first stage, companies own a more advanced technology. Such technology is viewed as one of the main advantages for them, as they can launch new products in the market with a lower cost. Such products appear initially in the developed countries, as only these countries have advanced technology. The increase of production of such products can be offered to foreign markets through exportation. When production starts to expand due to an increase of demand by consumers, the product has entered the maturity stage. In this stage, there is an increase in the number of manufacturing firms which influence the increase of competition and in the decrease of the product price in the market. In the standardization stage, all firms try to offer products the cheapest possible. Such products can be manufactured at this moment not only in the developed countries (where such products were introduced) but also in other developing countries. In this way European firms started to produce products similar to the American products (Vernon 1966).

Under the hypothesis of the product life cycle, the firms wanting to operate in foreign markets should possess monopolistic or oligopolistic advantages. Otherwise, firms should possess other advantages competing with the domestic firms in order not to operate in insecure conditions in foreign markets. The product cycle starts with the proposal that firms should offer products that are not manufactured in the host country economies. At the same time, foreign firms can exploit the natural resources available in the host countries. The host countries can play a double role, since they serve not only as a stimulation source for new firms, but also they can be more favourable for further development and expansion of investing. (Vernon R. , 1979)

Kojima's Macro-economic Approach

In his macro-economic approach (Kojima K. , 1973) tried to identify the main characteristics of two different types of FDI: pro-trade oriented (or Japanese type) and anti-trade (American type). He argued that FDI play an important role in creating competition in market factors by improving the production process in the host country.

Later on, (Kojima & Osawa, 1984) tried to create a model which dealt with international trade and foreign direct investments. According to this, FDI take place if a country has some comparative advantages in producing a product, while international trade is based on the comparative advantages.

However, Kojima's macro-economic approach faced a lot of critics. Such critics were mainly related to the differentiation he made between Japanese FDI or pro-trade oriented FDI and US FDI or "anti-trade-oriented" FDI. Kojima supported the idea that US FDI in advanced technology industries were premature and harmful¹.

Aliber's theory

(Aliber, 1970) tried to explain FDI through the financial markets relations. His model can be viewed as a suggestion to the foreign investment firms which are about to face the capital market imperfections and exchange rates².

(Aliber, 2003) treats a new approach on multinational corporate. He was one of the first authors to explain the afflux of FDI in the '80 towards US. In addition, he suggests that changes in the relative norms of a country's economic development have an important influence in the decisions and practices of investing firms. He argues that during the period that the real norms of interests are high the profits that firms receive are high as well. During this period, also the currency of the host country is appreciated. In his study, he dealt with the conflict between host countries governments and multinational enterprises.

(Buckley dhe Casson, 1976) as (Kusluvan, 1998) cites, criticise the theory of Aliber that FDI have a tendency to flow from the countries with a strong currency to the countries with a weak currency, as such theory does not explains the increase of European and Japanese multinational enterprises.

FDI internalisation theories

(Buckley dhe Casson, 1976) in their study on "The future of multinational enterprise" analysed the growth of multinational companies and their incentives to attract foreign direct investments. For these companies to maximise their profit while reducing manufacturing costs, they should create an internal market.

(Buckley & Casson, 1985) were among the first authors who introduced the internationalisation specific advantage in their FDI analysis. In that time, FDI were increasing in high technology production industry, where integration of research and development with marketing was crucial. (Buckley & Casson, 1985) emphasized the importance of imperfections in intermediate product markets, in particular of the patented technical knowledge (know-how) and human capital (Sezer, 2006).

(Buckley dhe Casson, 1976)³in their study went further with the industry orientation and the main determinants of international investments flows. Such determinants can be classified into three main groups:

- Maximisation of profit in imperfect markets;
- Creation of internal domestic markets for intermediate products
- Internalisation of markets across national borders

As a precondition for the creation of internal markets (Buckley dhe Casson, 1976)⁴defined four main factors:

- Industry- specific factors related to the nature of product and the foreign market structure;
- Region-specific factors, such as geographical distance and social and cultural aspects;
- Nation-specific factors, such as political and fiscal factors;

¹Chapter 2 "FDI and the Multinational Corporation" p. 12

²Chapter 2 "FDI and the Multinational Corporation" p. 18

³Buckley dhe Casson, 1976 p. 33

⁴Buckley dhe Casson, 1976 p. 74

- Firm-specific factors, such as leadership, management, organization.

In addition, (Buckley dhe Coasse, 2009) analysed the progress of their research on “*The future of Multinational Enterprise of 1976*”. This study analysed the concept of multinational enterprise, foreign market entry modes, and the impact of innovation on corporate expansion and the role of culture in international business. This theory is combined with the market theory and organization theory to explain international joint-ventures, and with innovation theory to explain different industry types where a firm would operate. The achievement of these authors with this research was the progress analysis of internalisation theory. This progress covered four main areas⁵:

- Testing of theory;
- Analysis of foreign market entry and development strategies;
- International Joint Ventures;
- Dynamics, innovation and real opportunities
- The role of business culture in international business.

The internalisation theory is appreciated by Dunning as well; his theory is dealt in more detail below.

Eclectic theory of FDI

Dunning is one of the authors who concentrated more on the nature of multinational enterprises and FDI. (Dunning, 1979)⁶ argued that FDI should have three main specific advantages to be successful in the host country markets. The eclectic theory developed by Dunning is otherwise known as the OLI paradigm (ownership, location and internalisation).

1. Ownership advantages

Foreign firms should possess some advantages vis-à-vis the domestic firms. For example, the investing firms should possess a more advanced technology than the domestic firms. In addition, if the foreign investment firms would have advantages in natural resources, capital markets and scale economy then such firms would have greater profits.

2. Location advantages

One of the reasons that foreign companies choose to invest in host economies is because of the advantages they later possess. The natural resources, market size and government policies are the main determinants that stimulate FDI in such countries. In addition to that, salary level makes that FDI is invested in those countries where labour cost is lower.

3. Internalisation advantages

The third advantage is related to the way how a company exploits its own competences when markets are imperfect. Foreign investment companies exploit their power in the market, ownership advantages and control in the host countries. Internalisation advantages are related to the trainings and specialization that investment companies carry out for their staff.

While testing of international product theory, (Dunning., 1980)⁷ treats five main factors. First, he explains the reasons why FDI flows from home countries to host countries. Second, the main factors of market exploitation are defined. Third, both ownership and location advantages are analysed. Fourth, the above factors are included in the internalization theory and last foreign firms are compared with the domestic firms.

(Dunning J. H., 1993), in his book analyses four main factors that host countries should possess in order to stimulate FDI. Thus, FDI tends to invest in those countries possessing unused natural resources. The market size in another factor that host countries should possess. Efficiency, also, motivates firms to exploit those markets where through the economy of scale they could minimize the production costs. And last, FDI searching for strategic assets want to exploit their firm-specific advantages to increase their power in the market.

⁵Buckley dhe Casson, 2009 p. 1575

⁶ Dunning, 1979 p. 275

⁷Dunning, 1980 p. 12

In 2001 (Dunning., 2001)⁸ proposed three main advantages of the eclectic paradigm to explain FDIs.

1. Firm's competitive advantages in comparison to other domestic firms;
2. The extent to which firms perceive to internalize markets;
3. The countries selected to expand a firm's activity.

Although the OLI paradigm has faced many critics, it is still one of the most comprehensive theories which explains the activity of multinational enterprises and analyses the main determinants of international production. That is why (Eden, 2003), for example introduced a development in the eclectic paradigm. In conclusion, he reached in the conclusion that the OLI paradigm is the theory which resisted best to the time, as even today it has values.

Conclusions

The complex character of FDIs makes it difficult to adapt a clear theory as their role has changed through the years. Hence, in different literatures we find different thoughts about foreign direct investments. Perhaps, it happens because in different countries FDIs have had different results. Today, almost in all literature share the idea that FDIs have mainly a positive impact in host countries. Therefore, developing countries try to attract more and more foreign investments through their incentives policies.

References

- [1] Aliber, R. Z. (1970). *A theory of direct foreign investment*. Cambridge: MIT Press.
- [2] Buckley dhe Casson. (1976). *The Future of Multinational Enterprise*. London: The Macmillan Press.
- [3] Buckley dhe Coasse. (2009). The internalisation theory of the multinational enterprise: A review of the progress of a research agenda after 30 years. *Journal of International Business Studies* , fq 1563-1580.
- [4] Buckley, P., & Casson, M. (1985). *The Economic Theory of Multinational Enterprise*. London: Macmillan.
- [5] Dunning. (1979). Explaining changing patterns of international production: a search for the eclectic theory. *Oxford Bulletin of Economics and Statistic* , 269-295.
- [6] Dunning, J. H. (1988). The eclectic paradigm of international production: and some possible extension. *Journal of International Business Studies* , 1-31.
- [7] Dunning, J. H. (1993). *The Globalization of Business*. London: Routledge.
- [8] Dunning. (1980). Towards an eclectic theory of international production. *Journal of International Bussunes Studies* , 9-31.
- [9] Kojima, K. (1973). A macroeconomic approach to Foreign Direct Investment. *Hitotsubashi Journal of Economics* , vo. 14, fq 1-21.
- [10] Kojima, K., & Osawa, T. (1984). Micro and macro-economic models of foreign direct investment. *Hitotsubashi Journal of Economics* .
- [11] Kusluvan, S. (1998). A Review of Theories of Multinational Enterprises. *D.E.U.I.I.B.F. Dergisi* , 163-180.
- [12] Sezer, H. (2006). Foreign direct investment. *International Business Economics: A European Perspective Palgrave Macmillan* , fq 186-223.
- [13] Vernon, R. (1966, May). International investment and international trade in the product cycle. *Quarterly Journal of Economics* , pp. vol. 80, fq 190-207.
- [14] Vernon, R. (1979). The product cycle hypothesis in a new international environment. *Oxford Bulletin of Economics and Statistics* , 255-267.

⁸Dunning, 2001 p. 176