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DIEM 2015

**Innovation, Leadership & Entrepreneurship
Challenges of Modern Economy**

**University of Dubrovnik
Department of Economics and Business Economics
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2nd Dubrovnik International Economic Meeting

DIEM 2015

**„Scientific Conference on Innovation,
Leadership & Entrepreneurship –
Challenges of Modern Economy“**

Proceedings

Edited by:

Ivona Vrdoljak Raguž, Ph. D.

Zorica Krželj-Čolović, Ph. D.



University of Dubrovnik
Department of Economics and Business Economics
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**Under the auspices of the President of Croatia
Ms. Kolinda Grabar-Kitarović**



Under the patronage of

Ministry of Science, Education and Sports of the Republic of Croatia



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KEY NOTE SPEAKERS



Giovanni Battista Dagnino, Professor in the Department of Economics and Business of the University of Catania, Italy

Title of the keynote: **Competition strategies in theory and practice**

Giovanni Battista Dagnino is Professor of Business Economics and Management at the University of Catania, Italy, where he is Coordinator of the PhD Program in Economics and Management and member of the University Spin-off Board. He is faculty member of the European Institute for Advanced Studies in Management in Brussels, Fellow of the Strategic Planning Society in London and Friend of the European Investment Bank Institute in Luxembourg. He has held visiting positions in a number of universities and business schools throughout the world. He is associate editor of Long Range Planning and seats in the editorial boards of seven international academic journals. He is known for his pioneering work on competition strategy, a new management area that he contributed to set off. Other investigation concerns the relationships among strategy, governance and entrepreneurship, the role of anchor firms and networks in regional innovation and development and research methods in strategic management. He has authored/edited eleven books and several articles in leading management journals.



David Gibson, Professor at Sunderland University, UK

Title of the keynote: **University entrepreneurial ecosystems for regional development**

Professor David Gibson, University of Sunderland, is one of the leading world experts in Entrepreneurship Education. He has won numerous awards nationally and internationally for his groundbreaking work in embedding Entrepreneurship into the entire curriculum of Queens University Belfast to ensure the entire student population of 24500 developed an entrepreneurial Mindset and enterprise skills to create national and international impact. As well as leading his university to the Times Higher Award of "Uk Entrepreneurial University of the year" , in 2009 he was named "the most innovative educator in the UK" by the Higher Education Academy and was awarded an OBE from the Queens of England in 2012., the only educator in this area ever to receive such an award. He was named the world number one Entrepreneurship Educator due to the evidence that his system led to many high growth start ups and to a change to the culture in the region. With twenty six year business experience and running his own business for ten years he has both practical business experience and over sixteen years of experience of changing academic culture for regional development. He has published widely and has written several textbooks including the award winning "Efactor" published by Pearson Education. He has worked extensively with the EEC and in China and India advising governments on how to set up entrepreneurial ecosystems based on his "ELVIS" model. His keynote will focus on how Universities can change their culture to create entrepreneurial ecosystems, it is "University Entrepreneurial ecosystems for regional development"

FROM THE EDITORS

After the successful 1st Dubrovnik International Economic Meeting organised in 2013., University of Dubrovnik, Department of Economics and Business Economics has organised the 2nd Dubrovnik International Economic Meeting (DIEM 2015), Scientific Conference of Innovation, Leadership & Entrepreneurship - Challenges of Modern Economy.

This International Conference (DIEM) is an international forum for the presentation of research results in the fields of Economics and Business Economics, in 2015 with the emphasis on Innovation, Leadership & Entrepreneurship - Challenges of Modern Economy. The peer review has been completed by an international team of reviewers, consisting of experts on economics from all over the world. On this conference two eminent researches gived key note speeches and presented their work at the conference: Giovanni Battista Dagnino, Professor in the Department of Economics and Business of the University of Catania, Italy (Title of the keynote: Competition strategies in theory and practice) and David Gibson, Professor at Sunderland University, UK (Title of the keynote: University entrepreneurial ecosystems for regional development).

The overall objective was to attract and invite professionals and researchers from the field of economics and other relevant fields, who are aware of practical and theoretical problems of modern economy, to participate and give their contribution in solving these problems with active participation in presentations, working papers and panels and to provide maximum opportunity for presentation by young researchers.

Contributions of the second Dubrovnik International Economic Meeting - DIEM 2015 lays in participation of 134 scientist from 28 different countries. We believe that the actual response of participants to our second conference proves our expectations that DIEM will represent an essential link from the scientific and educational point of view. The different views of the authors and conference participants as well as their suggestions of solutions to the same will hopefully be interesting and useful not only to the academics, but also to all the participants in the world of economy.

We are proud that DIEM has been recognised as an excellent platform to present new, contemporary issues and an active promoter of economic profession in the future.

Throughout the duration of this project, members of the Organising Committee and all the members of the international reviewing team were at disposal and to them we express our warmest gratitude.

Dubrovnik, October 2015.

Associate professor Ivona Vrdoljak Raguž, Ph. D.
Senior researcher Zorica Kržel - Čolović, Ph. D.

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KEYNOTE ADDRESS

Giovanni Battista Dagnino

University of Catania, Italy

COOPETITION STRATEGY IN THEORY AND IN PRACTICE

“Do you ever feel in competition?”

*“No. Our generation... **We believe in coopetition.** We believe that metal sharpens metal.*

We're constantly talking to each other.

We're constantly helping each other.

We believe that it's through our unity we're strong, not through division.

Competition is an old model.”

Mastin Kipp at Oprah's Super Soul Sunday, Jan 2013

JEL classification: D21, D22, M10

1. INTRODUCTION

In the PC industry the portals traditionally work both competitively and cooperatively with other portals. The same condition occurs today among and within virtual market platforms, entrepreneurial ecosystems, and the various kinds of actors that they involve.

Restaurants also, when they work together in the same urban district, can create a much larger and valuable market that they ever could by working individually. A good example of “restaurant coopetition” is when there is part of a city that has a large number of restaurants concentrated in a relatively small area (customarily named “*the restaurant district*” or “*the restaurant quarter*”). If you look at this from a traditional business point of view, this looks like a bad idea. However, the reality is that all this abundance of eating places *attracts* customers who may just go to the area without any specific restaurant in mind. This is where the competition starts. Then, the restaurants with the best ambience, or the best sounding menu, or the best price usually bring in more customers. Typical examples of coopetition are, in this sector, food courts, special food events, advertising, and cross-promotion.

In this brief essay, I would like to share some thoughts on coopetition strategy theory and practice by primarily reconnecting some of the dots my intellectual journey inside coopetition and having a look at the present and future of coopetition studies. Let me add that I am aware that this essay is going to

present a viewpoint that is certainly biased toward what I have done and I am doing on cooperation as well as the “virtues” of cooperation vis-à-vis its dark sides. Notwithstanding that, my hopes go in the direction that this viewpoint of mine may add at least a brick in raising the awareness and interest towards this truly important aspect of business reality and life.

Coopetition is a condition in which we have cooperation and competition at the same time. Coopetition encompasses, in a single backbone, the two traditionally countervailing forces of cooperation and competition that, in today’s fast changing scenarios, require more attention and comprehensive analytical treatment (Gnyawali, He and Madhavan, 2006).

In what follows, I shall proceed by initially retracing a short sketch of my personal intellectual journey on cooperation. Then, I will discuss the current state of the art of cooperation as an area of study. Finally, I shall talk about my interpretation of the future of cooperation studies in management.

2. COOPETITION AS A PERSONAL INTELLECTUAL JOURNEY

Let me immediately say that this is the story of a fifteen-year long intellectual journey of mine. An intellectual journey that I started as early as in 2001, just at the very onset of the new millennium after reading the seminal book on cooperation of Adam Bradenburger and Barry Nalebuff (1996). The book was not mine; actually I found it by chance left unattended on the shelf of a very senior colleagues of mine at Catania. Then, after looking at it a couple of times in different days, I took some courage and asked him to lend it to me. Fortunately, for he was not really interested in this book, he said yes.

The reading of the Bradenburger and Nalebuff book left me with mixed feelings. In fact, at the beginning I ought to confess that, while I did not like it too much, at the same time I could recognize, almost immediately, that they were right (and highly original at that time) in clearly pinpointing the need in business operations to see cooperation and competition as one thing instead of two or more, as the prevailing industrial economics-grounded strategy and management literature had done until that time. After some rumination, I resolved that I could probably make some attempt to contribute to the study of cooperation. This decision of mine was truly not risk free (of course in academic terms) at that time. Actually, nobody believed in cooperation in 2001! Accordingly, I had to resist to the many skeptical smiles of colleagues (and practitioners) when they were hearing, even from distance, just the echo of such a strange and illegitimate word as cooperation (Dagnino, 2009). In this instance, I tried to pay little or no attention to this reaction, that is in fact quite customary routine when people first tackle new and innovative objects, thinking and/or ideas. Then I started looking for the (really scarce, unfocused and sparse!) literature supporting the possibility for a firm to admit and pursue a cooperative behavior. That is, in a retrospective but

possibly authentic outlook, how it all began when we talk about coopetition in my own research.

My first paper on coopetition dates back to 2002, when – with my early co-author Giovanna Padula of Bocconi University – I tried to conceptualize coopetition as matter of “incomplete interest congruence” between two or more parties. This paper on coopetition, drafted as early as in 2002, and eventually published as chapter one of the Routledge book *Coopetition Strategy: Theory Experiments and Cases* (2009) I edited with Elena Rocco of the University of Venice Ca’ Foscari, over time has revealed rather influential in establishing coopetition as an area of study. It accounts today for over 340 citations in Google Scholar.

The second paper on coopetition, drafted as well with Giovanna Padula, titled “Untangling the Rise of Coopetition: The Intrusion of Competition in a Cooperative Game Structure” appeared in 2007 in the inaugural special issue on the issue coopetition pioneered by the journal that was the first one to bet and believe on coopetition *International Studies in Management and Organization*. This piece advances the notion of cooperation as a truly coopetitive game, where firms interact among each other on the ground of a partially convergent interest structure. It also proposes a set of environment-related and firm-related factors that explain the drivers of the intrusion of competitive issues within a cooperative game structure. The article has met with notable success over time:

- (a) it has almost 200 citations in Google Scholar;
- (b) it is consistently ranked among the most 2 or 3 cited articles at ISMO; and
- (c) it has been awarded a special recognition for influential work on coopetition in the decade 2004-2014 at the EIASM Umea workshop.

Some venues have been the persistent travel companions of my journey. Since 2004, I have been so fortunate to pioneer and launch the European Institute for Advanced Studies in Management (EIASM) Workshop Series on “Coopetition Strategy”, and thereby contributed to chair six editions of this one that became a biennial venue hosted over a decade in various parts of Europe: Catania (2004); Milan’s SDA Bocconi (2006); Madrid’s Carlos III University (2008); Montpellier I University (2010); Katowice’s University of Economics (2012); and Umea (Sweden), May 2014.

This conference series, together with a bouquet of other initiatives conveyed in worldwide influential conferences, such as the Academy of Management Annual Meetings (Chicago 2009, Orlando 2013, and the latest one on Global Coopetition Strategy that has taken place in Philadelphia in 2014), and the Strategic Management Society Annual Conferences (Rome 2010, and Miami 2011), have been instrumental in gathering and nurturing, especially in Europe, a community of scholars and students mainly focused on coopetition and therefore in establishing coopetition as a significant emerging area of strategic

management. Just to present a little but hopefully not insignificant example of this growing cooperation community, at the Umea Workshop in May 2014 we organized for the first time a doctoral tutorial that was attended by 11 PhD students and candidates who were doing dissertation on cooperation. In addition, in my university (the University of Catania in Italy) we have now a least ten written reports related to cooperation that have been delivered in the last three years: two PhD students, who have written their dissertations (one completed in 2012 and one ongoing) on cooperation, and some eight MSc degree theses on the key issue.

3. THE PRESENT OF COOPERATION

As said earlier, cooperation is today as an area of studies that is receiving increasing attention in academia. In fact, in the last five years the number of books and articles on cooperation has incredibly flourished, outgrowing considerably the figures presented by the former five years. The amount of articles published in international academic journals has been epitomized by a steep increase in the last 5 year-time (2009-2014: 63; vs. 21: 2004-2008; vs. 8: 1999-2003). The journals that have gathered a remarkable part of the articles published on cooperation are the *British Journal of Management* and *Industrial Marketing Management*. Six books on cooperation have been published in the last 5 years. Likewise, the amount of publications that have appeared in practitioners' outlets and newsletters has literally skyrocketed (100+ only in the last 3 years)!

In addition, there is nowadays notable attention raising from the (online) media, BBC, FT, WSJ, Huffington Post, etc. And the word cooperation is recorded and accepted as a "normal" word, not only in Wikipedia, but also in Oxford and Collins English Dictionaries ("*cooperation between competitors in business*"), as well as in the Financial Times Lexicon ("*Simultaneous competition and co-operation between a company and external players such as rivals, government agencies, suppliers, distributors, and partners*").

As concerns business practitioners, I have recorded and am continuously recording a fast growing interest in cooperation by executives, entrepreneurs and consultants. Actually, they find them caught in a range of cooperative situations that they do not know how to deal with. This occurs since, while most of them have formal and/or informal education and training to deal with cooperation opportunities and competitive dynamics, they usually did not experience any education or training to cope with cooperation conditions. Some recent personal experiences (e.g., company sales seminars and consultancy) do nothing else than confirming this condition.

At first glance, cooperation is seemingly a paradoxical behavior or even a bad idea. In my understanding, let me second that this is nothing else than a misbelief. The misbelief is probably due to the binomial (black/white) view of the world that traditionally epitomizes the Western view of the world (Dagnino,

2012). Nonetheless, if we look at the business world, we easily and immediately find plenty of situations where cooperation and competition, far from being alternative to one another, coexist at the same time and in the same context (Schweitzer and Galinski, 2015).

If we accept the possibility of the existence and the widespread diffusion of cooperation as a phenomenon, then we ought to think about how to turn cooperation from an external and spontaneously received issue into a deliberate and purposeful strategy (Dagnino, 2009) for any kind of firm or company, huge (Gnyawali and Park, 2011) or small (Gnyawali and Park, 2009). This is a fundamental step forward that, in my opinion, is to be walked over and over in order to use cooperation as a strategy that creates value for individuals, firms, networks and industries.

The next quasi-natural step is to learn how to formulate cooperation strategies and execute them in an appropriate way. To this end, we need to develop some updated diagnostic tools and some execution guidelines and frameworks. Actually, the literature on and the practice of cooperation has experienced dramatic growth and success in the last few years (Bengtsson and Koch, 2014) and we can confirm that, while we have now a body of knowledge that may help in this endeavor, additional efforts need to be done to develop actionable frameworks and applicable tools to detect cooperation and help formulate and implement effective cooperation strategies. Some important companies, such as Eriksson and Nokia, are at the forefront in this regard and may serve as conduits to make cooperation strategy as a widely practiced strategic option.

4. THE FUTURE OF COOPERATION

Let me start this section by saying that I am pretty far from having a crystal ball that may allow to predict the future! Therefore, while the current trends in studying cooperation are pretty detectable and understandable, I am not sure about the future path(s) that cooperation movement may take.

Nonetheless, I have reasons to believe that cooperation studies are undergoing today the best of times in their almost two-decade history. In fact, taken apart articles being published as stand-alone original and review contributions in journals, a consistent stream of publications, especially special issues of international journals dedicated to cooperation (*Industrial Marketing Management*, *International Studies of Management and Organization*, *International Journal of Technology Management*), or to the interplay of competition and cooperation (*Strategic Management Journal*) is about to appear in print in the next one and half years. This condition, I believe, will certainly give another wave of huge boost to cooperation as a recognized area of research and practice!

As concerns community building initiatives, I am actively working with a small but cohesive group of other Europe- and US-based academics to promote this area of research and teaching through the Global Coopetition Research Network (GCRN) (see www.co-opetition.net). I seat on the Founding Steering Committee of GCRN and collaborate on various relevant initiatives on coopetition: research projects, journal special issues, and conference events. The steering committee of researchers on coopetition has in fact crystallized the efforts in recent years to advance coopetition research and practice. In particular, the GCRN has contributed to facilitate the establishing and development of coopetition studies through a set of international publications as well as organizing a rather consistent stream of solid scientific initiatives. The GCRN is currently planning of launching in 2016 an international association of scholars interested in coopetition.

In addition, I am currently co-organizing the Strategic Management Journal Special issue Workshop and Discussion Forum, titled “The Interplay of Competition and Cooperation”, at the 35th Strategic Management Society Annual International Conference, Denver, October 3-6, 2015. We are also organizing/chairing a major international conference in Rome in June 2016 under the auspices of the Strategic Management Society. The theme of this conference is “Strategy Challenges in the XXI Century: Innovation, Entrepreneurship and Coopetition”. This venue will feature some of the world’s most recognized contributors in this theme in the strategy field. Last but not least, in the next couple of years I also wish to publish a book on “coopetition theory.”

Another important milestone in coopetition would be the development of a range of teaching courses at various degree levels (e.g., BS, MSc, MBA, PhD, and executive education). Needless to say, planning to craft a textbook on coopetition and a case study/teaching collection on coopetition would be of great help in this perspective. Likewise, we should possibly also look much more closely at how industry regulations and regulatory issues should evolve and adapt in the face of the diffusion of genuinely cooperative environments, such as network, platforms and ecosystems (Gomez-Casseres, 2015).

In sum, we probably ought to primarily to consolidate the contours of academic profiles that are solidly and consistently tied to be contributors/scholars in the rapidly emerging area of coopetition strategy. Since cooperative behavior is much diffused in industry practice, in the next few years the coopetition community is expected to perform and publish study on coopetition mindset and applications in internationally reputed practitioners’ journals. This condition is especially targeted for coopetition studies to achieve much-required fallouts that is relevant to business practice.

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DEVELOPING UNIVERSITY ENTREPRENEURIAL ECOSYSTEMS FOR REGIONAL DEVELOPMENT

JEL classification: G 21

Abstract

This abstract presents the results of ten year's research completed with students of all disciplines, with over 3000 who developed Entrepreneurial competencies within their degree discipline and a control group of 1000 students who did not study Entrepreneurship in any form. The purpose of the research was to measure the Entrepreneurial competency development of students and any entrepreneurial outcomes at graduation, two years, five years and ten years after graduation. A research questionnaire based on the author's "E-Factor" competency model was designed in conjunction with a leading Occupational Psychologist and these were administered at the requisite stages. The paper highlights the key results of the longitudinal study: Students who had undertaken the Curricular Entrepreneurial training had improved their "E-Factor" score significantly in comparison to the control group not only at graduation but at each stage of the study. There was a direct correlation between the level of Entrepreneurial competence and the extent of their curricular Entrepreneurial learning. There was also many more businesses started by those who had received curricular training than by those who were members of the control group. The more experiential the pedagogy the more impactful the Entrepreneurial Learning

Key words: competencies, entrepreneurship education, pedagogy

1. INTRODUCTION

The author over a ten year period worked with over 30000 students and over thirty academic staff to design and implement a curricular Enterprise Education project on a cross campus basis to all disciplines throughout Queens University Belfast. The project was driven by a broad policy directive from the UK Government that students needed to be more "innovative and entrepreneurial" with particular reference to successful US "entrepreneurial universities" for example MIT who had created a number of highly successful high growth businesses from staff and student based projects. There was also an awareness at the highest level that all UK students needed the skills of the Entrepreneur to compete in the global economy. One of the challenges was that there were very few exemplars anywhere in the world where Entrepreneurship had been embedded into the curriculum of all students and indeed into the entire student experience, but only small "pockets of good practice". Many of the large research based universities who had successful commercial spin outs were highlighted as role models, however in many cases their success was based on one or two staff research spin outs with very little infrastructure to reach all students. A recent report by the MIT Skoll Entrepreneurship Institute (2014) highlighted that large research spin out income was only one aspect of the "entrepreneurial university" and did not meet the needs of the vast majority of students needing to develop "an entrepreneurial mindset" to compete in the global economy.

After reviewing existing practice the author who was appointed to lead Entrepreneurship education at Queens University Belfast in 2002 decided to design and implement his own cross curricular model. He hoped to reach students on a cross campus basis and to help them develop entrepreneurial competencies and develop an entrepreneurial ecosystem. This would allow students to develop enterprise competencies, have a new venture experience and they would be given the opportunity to be involved with co-curricular activity to develop their innovations and capabilities further.

It was also important to measure the number of students who undertook curricular activity and the impact of the education with regard to its educational value and any direct results such as the number of business and social enterprises started up by the students. The author designed a new Entrepreneurship education model based on ten year's research with entrepreneurs which had highlighted eight competencies which all entrepreneurs need to survive in the global economy and in particular were required in the constantly changing working environment of the entrepreneur. The model was called the "E-Factor" competency model (Gibson 2006) and it became the basis of curriculum design and pedagogical development of a number of cross campus curricular initiatives to be embedded within the curriculum. Although it was relatively straightforward to measure the impact in terms of the funders' requirements, it was felt for long term impact and learning that the longitudinal impact should be measured over a ten year period to provide meaningful rigorous data for policy purposes.

A research questionnaire based on the "E-Factor" model was administered to all students undertaking the curricular Entrepreneurship both before and after the course and on a large sample of the participants (3000) over the ten year period and to a control group of 500 students who did not undertake the curricular Entrepreneurship Education. A random sample of thirty students formed a focus group to provide detailed qualitative data over the ten year period.

This paper focuses on the results of meetings with the group of thirty over the ten year period although it is important to state that the quantitative data from the 3500 sample provided impact evidence in line with the results highlighted in this paper.

Before reviewing the literature and the research results, it is important to explain the details of the "Elvis. Model" which incorporates the "E-Factor" competency teaching model but was designed specifically in an attempt to enhance the effectiveness of the Entrepreneurship education project on a longitudinal basis.

2. THE ELVIS MODEL

As mentioned above "ELVIS" was an attempt to create a working Entrepreneurship Education model which would not only help students develop the competencies and mindset to become more entrepreneurial but produce measurable results both on a short term but also on a long term sustainable basis.

The author and Queens University Belfast have won many awards for the model and the short term impact it achieved. This included the University being named " Times Higher Entrepreneurial University of the Year UK 2009" and the author winning fifteen awards including the first UK National Teaching Fellowship in 2007 from the Higher Education Academy, "The Most Innovative Teacher in the UK" 2011, the World Number One Enterprise Educator Award in 2011 and the first OBE ever awarded by the UK Government for Enterprise Education in 2012. However does the longitudinal research evidence highlight that the participants have achieved long term results directly as a result of having experienced the curricular model?

"ELVIS" is an acronym of the key components of the Entrepreneurship Education Curricular Education system designed and implemented at Queens University Belfast in 2002.

E stands for **the embedding of entrepreneurial competencies within the curriculum.**

The Eight Competencies embedded into the teaching and learning were as follows

1. Creativity.
2. Resilience

3. Personal Influence
4. Financial Mastery
5. Leadership and Team work
6. Negotiation and Assertion Skills
7. Personal Branding
8. Strategic Action

Every student in every degree pathway had to undertake at least one compulsory module during their degree where they would be assessed on their development of the competencies and the reflection on their learning. It was felt that as the model was innovative and represented a significant change both in curricular content and in pedagogy that educators would need to use the very competencies they were teaching. Students who graduated having completed a module with these competencies embedded graduated with the "Queens Certificate in Entrepreneurship Studies". By 2009 over 85 percent of all Undergraduates were achieving this on graduation which is a measure of the amount of students who were involved in the programme. It provided a large dataset to research over a period of time.

L stands for **linking up the Entrepreneurship education model with the rest of the Entrepreneurial Ecosystem both within and outside the University**. This includes further co-curricular activity with student societies and enterprise projects within the University and also linking with all relevant agencies and a large sample of entrepreneurs within the region and internationally.

V stands for **verifying the outcome of all enterprise activity in the curriculum both short term and long term** as educational activity, the teaching learning and assessment would have to be measured as Higher Education best practice and educators would need to review the feedback from students. Numbers participating and any short term results would need to be fed back to funders and other university stakeholders. Public Sector policy developers, funders and other stakeholders also need research based evidence that the model works on a sustainable basis.

Without evidence the likelihood is that most funders and universities will only invest in Enterprise Education models on a short term basis limiting the potential impact of any Enterprise Education carried out. Educators despite the practical nature of the project had to work together to research and publish findings as this is critical in providing verifiable evidence to University Senior Management and the Funders of the University. Longitudinal research data is considered the most rigorous evidence of success by all stakeholders.

I stands for **institutional support and innovative pedagogy**. Without institutional support from a senior level any curricular project is unlikely to have a long term future. Most innovative Entrepreneurship education projects are funded on a short term basis externally with the need for the institution to fund the next stage of the project on a permanent basis. Does the curricular project fit

in with the strategic plans of the University? If not, this is also likely to impact on its long term impact and indeed existence.

Innovative pedagogy and assessment are vital to ensure that students acquire not only knowledge but also the entrepreneurial competencies and attitudes needed. University module leaders are under pressure to ensure research is embedded in the curriculum and that the module and its teaching and assessment have rigour. However it was felt in the design of the ELVIS project that students need to be inspired and to learn by doing. Ocinneide et Al (1994) confirmed in their study of Irish Higher education that it was possible to develop creativity and a belief amongst students that they could make things happen. There were very few modular examples that met up with this within the UK Higher Education system in 2003 but fortunately there are now a few case studies with guidance from the QAA (2012) who have recognised the need for appropriate pedagogy and assessment in teaching in this area. The emphasis of the “Elvis” teaching model was getting engagement with the students, providing experiential experience and a chance to reflect on experience rather than simply reviewing literature on its own.

S stands for **student and stakeholder marketing**. The objective of the new cross campus Entrepreneurship education was not for students to learn about Entrepreneurship but to complete entrepreneurial projects within their own disciplinary areas and to develop the competencies and self-efficacy to create and implement projects. It was felt that the curricular modules were vital to ensure that all students got the chance to develop these competencies and also to find out about further projects and opportunities outside the curriculum. This led to the deliberate inclusion of meeting with outside stakeholders and to at least a limited amount of co-curricular activity. Traditionally most of the student base is not reached outside the curriculum and it was vital to provide relevant and inspirational teaching and an opportunity for independent learning within the curriculum as all students at all levels were registered on the Certificate in Entrepreneurship Studies. There was a need to build the profile of the modules and the success stories and ensure they were highlighted both within internal communications and also with all the stakeholders both within and outside the University Ecosystem. A commitment was made to constantly develop the programme based on student and alumni feedback, student feedback on the module and alumni who were now working were encouraged to provide feedback on the benefit of the curriculum and the pedagogy on their career and constructive feedback for module development.

The outline of the ELVIS project highlights the features of the project and the plan for its strategic development. One of the problems was there were very few exemplars of working cross campus enterprise projects and very little research evidence. It was necessary to create a project that had clear objectives, best educational practice and that could be measured both on a short or long term basis.

The standard reporting systems to university management and external funders provided short term evaluation. Long term longitudinal data measurement provided a more structured and rigorous measurement of sustainable impact with practical and policy considerations.

3. LITERATURE REVIEW

One of the challenges in learning from the literature was that there is a lack of applied studies in this area, in particular regarding developing a compulsory campus wide curricular project because educators have been unable to make these projects happen and there is also a dearth of published research in Enterprise Education, particularly on curricular non business school interventions. The work of Gibb (2005) does provide excellent guidelines of best practice on cross curricular Enterprise Education without any evidence or evidence based strategy on making it happen on a Campus wide basis. Hannon (2007) also highlighted the fragility of UK Higher education Enterprise Education provision. Pittaway, L and Hannon, P (2008) reviewed potential institutional strategies despite the lack of proven successful models that can be rolled out particularly within the UK context.

Indeed ten years ago Henry et Al posed the significant question can Entrepreneurship be taught? which remains a perennial issue as it is still unclear whether this is indeed a challenge or simply more difficult to achieve for academics who have excellent knowledge about the literature on Entrepreneurship but neither the practical experience or pedagogical skills to create a high impact entrepreneurial experience or indeed the capacity to learn to deliver it. Certainly the work of Jones (2011) and Thompson, Scott and Gibson (2010) highlighted the importance of Entrepreneurship education being grounded on a student learning model, whilst the challenges that the enterprise educator faces was discussed by Carey and Matlay (2011) without any evidential data on how specifically to address these issues. Lewis (2011) and Blenker P et al (2011) both concurred in the view that the development of an entrepreneurial mindset needs to be the core objective of university Entrepreneurship education. Lewis (2011) also reviewed the challenges of developing Entrepreneurship education for all students whilst there is a lack of high level research in this area.

Broadly the literature highlights the challenges that Enterprise Education faces and provides examples of potential models and what universities should do. What is needed are well researched longitudinal examples which prove what institutional and pedagogical strategies can work in practice and are transferable to other institutions. This paper will provide longitudinal qualitative evidence and will be used in conjunction with further quantitative evidence to provide a model which will increase the likelihood of any educator with appropriate professional and academic training being able to produce excellent student focused campus wide curricular Enterprise Education in all universities.

Wilson (2012) whilst accepting the need for the measurement of Enterprise Education gave the following proviso "if enterprise culture which is the essence of successful Enterprise Education is to be measured, It cannot be a simple process; it requires a rigorous and comprehensive study, engaging with students and universities during the process." What is clear is that major Policy makers need research evidence to inform policy and to create a long term plan to keep Enterprise Education at the core of learning and development in all activities.

4. THE RESEARCH METHODOLOGY

The author recognised an outstanding opportunity at Queens University Belfast to design a unique curricular model as when he arrived in 2002 the University had a small cohort of students studying traditional Entrepreneurship and the University was coming under pressure to justify its results based on the High level Investment form OFSTED four years earlier to promote Entrepreneurship Education. There was a need to design and implement a Campus wide curricular system as soon as possible. The opportunity to work with many thousands of students in the curriculum from all types of disciplines provided an outstanding longitudinal opportunity to measure impact and learning and provide rigorous results for policy to share with future international educators.

A research questionnaire was designed based on the E-Factor model outlined above and it was issued to every student undertaking an Enterprise Education based module before the first session and after the last session. The author picked two samples to follow over a ten year period and selected thirty students who were undertaking the modules, and we planned to re-administer the questionnaire at the end of the module; two years, five years and ten years afterwards. He created a random focus group who would meet at each juncture for an afternoon at each stage of the research project to produce learnings and results not only to shape existing curriculum but a ten year longitudinal study that would provide significant data and clear outcomes good and bad for each participant. In addition a group of three thousand students would complete the questionnaire over the same time period. Their results would be compared with a group of five hundred students who did not do the curricular enterprise modules

This paper focuses on the results of the qualitative sample. The thirty students were picked randomly with ten from the Engineering Faculty, ten from the Science Faculty and ten from the Faculty of Humanities. They were all final year students as in the early years of the project a university committee that the author reported to only allowed modules to be designed and embedded for final year students. It was relatively straightforward to keep in touch with the group as they were enrolled on the Curricular Certificate in Entrepreneurship Studies.

5. DETAILED RESEARCH METHOD

There was no attempt for the author to lead the group other than to ask them to complete the questionnaires and to provide an opportunity to share experiences and opinions with the clear proviso that they were encouraged to reflect on the impact of the curricular module on their working life throughout the ten year period. The results were very significant and provide excellent learning to share with educators and policy makers. The results are arranged into a number of areas to provide maximum learning.

The sample all increased their overall scores over the ten year period. The most significant increase was before and immediately after the programme and two years afterwards although there was still increases after ten years to show that with this limited random sample that the entrepreneurial results not only improved immediately after the enterprise education but also on a sustainable basis leading to the conclusion that the sample had been changed by the intervention.

The four areas where the sample showed significant weakness before the module was in their creativity, resilience, personal branding and financial acumen. There was almost a 30 percent average increase in all these areas immediately after the module was completed. This increased by a further 10 percent after two years and by a further eight percent by the end of the ten year study. There were also significant increases in developing strategic action but an average eight percent increase for leadership, negotiation and personal influence.

Although the questionnaires were administered at each stage this was to provide additional evidence to the Qualitative data provided by the focus group. The competency development increase outlines have a strong correlation with the large Quantitative sample to be reviewed in a different publication.

6. THE MAIN BENEFITS OF THE PROGRAMME

The group felt that the programme had developed their belief that they could start up a business as and when they wanted to. They were much more resilient and ready to tolerate ambiguity in the work place. They all felt they had developed both their creative skills but also understood their own personal strategy of being creative. They were prepared to promote both themselves and their companies and put themselves forward for opportunity. They were more relaxed and aware of strategies pertaining to raising funding and to understand the importance of money in most business situations. They had found it a shock in their modules to be more than passive recipients of the research knowledge of lecturers but all felt that their action orientation had increased as a result of the module. They also felt that that the entrepreneurial learning methodology made them capable of making much more impact in whatever work situation they were

in. They all felt they had a significant advantage in developing innovative projects in their career.

THE PEDAGOGY

Initially they had found the pedagogy very unusual and not in line with what they had experienced not only through their university degree but also in secondary education. They found the style of learning inspirational and responded well but worried if this was proper education if they were doing things and having fun. They also learned that they would continue to learn post university and were willing to create ideas, implement and in many cases learn from failure. This was not something they had experienced before. Two of the comments of the group highlighted the focus of the group:

*"The best teaching I have had in my three years in Queens.
Unbelievable!!!!"*

Third year Nursing Student

*"The most impactful teaching session in my life"
Pharmacy graduate five years after the teaching experience*

*"The entrepreneurship teaching strategies inspired me to set up my
multimillion tourist business within three years of Graduation"*

Computer Science Student

SELF EFFICACY

This was perhaps the key variable in that all focus group students felt that this had increased for them immediately and continued to grow over the ten year period As one History student indicated:

*"I feel the programme and the method of learning increased my capacity
and my belief that I was an enterprising graduate and that I could make impact
within the workplace almost immediately."*

LINKING MODULES TO CO-CURRICULAR ACTIVITY

The focus group found it strange that part of their assessment for their module was linked to finding out about student enterprise projects and making a contribution to their success. 86 percent of them found this unique method very useful.

*"It enabled me to link law, enterprise theory and human rights. I got
involved with Enactus. And became an elected member of the Student Union
Management Centre"*

Third year Law student

"I found the "come outside" message fascinating. I learned about Social Enterprise Projects and ultimately became Head of Student Enterprise and am now a Senior Manager for Innocent Foods running their entrepreneurial investments Not a likely " destination for an Engineering student"

Third Year Mechanical Engineering student

The consensus was that they recognised the benefit of this linked approach and were initially driven by the fact that they were being assessed on this area and thus paid attention and the engagement developed further in many cases.

STARTING BUSINESSES

The Focus group indicated that they got the message that Enterprise Education went way beyond start up.

"What I liked was that I became streetwise about starting a business and had the skills to create and start a new venture either within a company or as a small business".

However 42 percent of the focus group had started their own business by the end of the ten year period and one had created a millionaire spin out business. The other 58 percent were in Senior Management jobs for which they attributed their Entrepreneurial training within the curriculum as a significant factor. The one exception was a Business student who was now completing a PhD and was determined to become an "Entrepreneurial Researcher"!!!

ANY OTHER FINDINGS

Almost a tenth of the focus group wanted at some stage to become a full or part time enterprise educator .They all felt that students should have curricular enterprise education from year one to ensure they made the most of the opportunities that the University experience provided.

Over 90 percent indicated that they felt that all Universities must have educators who had practical experience with clear expertise in entrepreneurial learning. They indicated that they had picked up the view that the enterprise educators seemed to be treated as second class citizens to pure researchers within the university system and felt they wanted more transparency about this. They felt that parents and careers advisers should have access to this research evidence in their choice of universities.

7. FUTURE DIRECTIONS

The results from the focus group show clear longitudinal benefit from this type of project. There is now a need to provide detailed statistical analysis from the Quantitative data and test it for correlation with the Focus group evidence.

When the results from this longitudinal study highlight the benefits, it is hard to understand that why after over twenty years there are limited curricular interventions and research data to help educators and universities to create campus wide interventions for maximum impact. There is no doubt that the conclusions of Penaluna, Gibson et Al (2008) remain valid "Entrepreneurial Education needs Entrepreneurial Educators." Perhaps in addition to researching further applied interventions there is a need for much more than the present training and support system for educators because their success is not only predicated by their teaching and their curricular design but by having training and mentoring for a longer period to negotiate the obstacles that a university as a large bureaucratic organisation will present them if they are to achieve the sustainable impact clearly needed.

This research has indicated that good curricular education has significant longitudinal validity and it is likely that the next stage of the research project will offer both related and further findings. Policy makers must listen to enterprise educators who have had significant experience in creating cross campus curricular education for the vast majority of a University population and develop a new approach otherwise it is unlikely they will produce an adequate number of innovative graduates to compete in the global economy. Universities have to respond to funding and the needs of key stakeholders. If Policyholders accept that enterprise education has significant role to play, they must ensure that this policy is turned into practice.

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RESULTS OF APPLIED COLLECTION MANAGEMENT MODEL – SERBIAN CASE

JEL classification: G 21

Abstract

The main aim of establishing collection management model (CMM) is to minimize non-performing loans (NPL) in credit portfolio. Furthermore, efficiently organized collection management has direct impact on profit of the bank, via the level of provisions. The subjects of the analysis are the results of applied CMM on corporate credit portfolio of Erste bank and Banca Intesa Serbia in the second quarter of 2010. Consequently, the focus of this paper will be the period within 2011 and 2013. Elements of implemented CMM in both banks are the same, i.e. Aim, Architecture and Instruments in both models are similar. However, Organization, Control and Monitoring within the model are different due to the different risk management policies and organization in accordance with business needs. The authors focus on the following indicators: NPL, CAR (Capital Adequacy Ratio), ROE (Return on Equity) and quality of corporate credit portfolio. Finally, these results will be compared with the performance of the whole group to which Serbian banks belong, i.e. Italy and Austria.

Key words: NPL, collection management, credit risk

1. INTRODUCTION

The basic banking risk, immanent to specific of money management is credit risk i.e. the probability that the bank will not be able to collect the overall level of credit receivables from customers (principal amount or/and related interest rates or/and fees) (Barjaktarovic, 2013).

Crucial part of the whole process related to managing credit risk is collection management. Thus, collection management has direct impact on bank's profitability, level of provisions and quality of credit portfolio. It means that the key effect related to collection management is the decrease of provisions (in Income Statement or Equity in Balance Sheet) which consequently leads to the increase of profitability or reduction of the equity (Barjaktarovic, 2013; Barjaktarovic et al., 2011).

Accordingly, the bank may achieve successful results in case it follows the next criteria (1) volume of new approved loans and increase of the credit portfolio in accordance with the defined targets, (2) profitability of the bank, and (3) the level of non-performing loans (NPL). Consequently, the conclusion may be that efficient collection management is one of the most important issues for the bank and one of the preconditions for bank's lucrative and prosperous performance.

However, it is important to stress out that this paper represents further analysis which relies on the previous research (Barjaktarovic et al., 2015). The previous research focused on the results related to the applied collection management model (CMM in the text) on corporate credit portfolio (in the second half of 2010 as group strategy) of Erste bank a.d. Novi Sad (EB in the text) and Banca Intesa a.d. Belgrade (BI in the text), within the period from 2010 to 2013. Additionally, those results will be compared with the performance of the whole group, to which Serbian banks belong, i.e. Italy (Intesa San Paolo Group/ IG) and Austria (Erste group / EG) in the period from 2007 to 2013. This part of the analysis represents the deepening of the previous research and the main aim is to see whether there are some crucial differences between local and global performance of both banks including the comparison of performance indicators related to profitability, level of provisions and quality of credit portfolio.

Both IG and EG are present in Central and Eastern European (CEE) countries. They are active leading players in mergers and acquisitions of CEE region, so risk management procedures are crucial for establishing business in acquired banks. The aim of the research is to determine the impact of implemented CMM on banks' business comparing to the market where they perform activities.

The main hypothesis of the paper is that good CMM provides satisfied quality level related to credit portfolio and profitability of the bank. The value added of the paper is the comparison of this implementation on both levels: global and local. The main indicators used for confirming of the hypothesis are NPL (Non-performing Loans), CAR (Capital Adequacy Ratio) and ROE (Return on Equity). Consequently, these indicators should be more successful in comparison to

overall indicators related to banking sectors in Serbia, Austria and Italy. This paper consists of four chapters. The first chapter is introduction. Within the second chapter, the methodology is presented. Results and discussion are in the third chapter. Conclusion presents the last chapter of the research.

2. METHODOLOGY

Both banking groups introduced CMM in 2010 in accordance with their organization and type of customers. Elements of CMM model are the same: Aims, Organization, Architecture, Instruments, Control and Monitoring within the model (Barjaktarovic et al., 2011; Barjaktarovic, et al., 2015; BI, 2012). It is important to stress out that this exact model was used in previous relevant researches related to local banks; however it will be implemented on global level as well within this paper. The aim is to see whether there are any differences and discrepancies between local and global performance of the banks and its comparison to overall country banking indicators. This is the main contribution to the previous research. All the components of the model are presented on Table 1 for both banks globally (EG and IG).

Table 1

The components of CMM model – EG and IG

Elements	EG	IG
Aims	1) Regular and successful servicing of the credit commitments of the customers, 2) Minimizing the delay in servicing the credit commitments toward the bank, 3) Decreasing the overall number of NPL in credit portfolio.	
Organization 1) Classification of the debtors 2) Participants	Rating of the customer and delay basket; Corporate division, Risk management division (Corporate credit risk management, Collateral management and Collection management), Credit committee, Legal division and Back office (credit administration).	Segmentation of the customer and delay basket (cluster data); Corporate division, Risk management division (Corporate credit risk management, Collateral management and Collection management), Work out, Legal division;
	PL and NPL clients are the main subjects of control and monitoring within the collection management model. The model consists of two analyses: quantitative analysis and qualitative analysis. Quantitative analysis represents changes, which have already appeared in customer's business and may affect the regular	

	<p>repayment of the loan and core business of the customer. All early warning signals can be categorized in the following ways (significant changes in customer's behavior, market data, problems in daily business and signs of fraud).</p> <p>Qualitative analysis represents a portfolio analysis using historical data. Historical data can be internal (internal database) and external (market data available to all relevant stakeholders). Internal indicators are days of delay, rating, industry and t/o through the account within the bank. External indicators are: blockade of the account, financial data (t/o, gross profit margin, EBIT, net profit, total assets, equity, short term loans, long term loans, receivables, payables, inventories).</p>	
Architecture	<p>Creditors and debtors; Collection management process for PL portfolio and NPL portfolio</p>	
Instruments	<p>Source of repayment can be cash flow from regular (core) business, i.e. primary source of repayment (CF1) and collateral of the loan i.e. secondary source of repayment (CF2).</p>	
Control and monitoring	<p>All credit customers of the bank are divided in 3 zones in accordance with the risk level:</p> <ol style="list-style-type: none"> 1) Red zone – the most risky customers of the portfolio, 2) Yellow zone – the zone of medium risk, 3) Green zone – zone of the low risk. 	<p>Basic principle: Continuous improvement; Review credit collection process; Key initiatives for Corporate: 1-90 days - Early due payment day management (PL) 90-180 days - Soft collection (NPL) 90-180 days - Rescheduling & agreed sale of client non-core asset (NPL) 180 + days - Distressed restructuring (NPL) 180 + days - Legal execution (NPL); Campaign consist of: target group of PL or NPL; campaign parameters and expected key drives;</p>

Source: Bank's Internet site (2015) Annual reports and Disclosure of data and information (3rd Pillar of Basel II) for the period of 2007 to 2013.

As it can be seen in the previous table, **the aims** are the same in case of both banks. Furthermore, if we analyze **the organization**, within the model classification of debtors and participants is covered. Both banking groups use days of delay for explaining this component of the model. However, it is important to stress out that there are certain discrepancies related to prime classification of the customer if we analyze the banks globally: (1) EG is using customer rating and for the final classification of the customer in the portfolio, expert opinion is relevant (built on individual assessment of risk management division of the bank);(2) IG is using classification influenced by the type of the customer (turn over, ownership structure and geographical presence are taken as the most important criteria). We may add that results are similar to the findings and differences we have found out in the banks operating locally.

Furthermore, component **participants** are similar within the model in both banks. However, main difference is related to the effects of internal organization. The most important thing is that all involved departments should cooperate successfully and have efficiently developed information flow among each other.

The model consists of both qualitative and quantitative analyses using both current changes in customers' performance and historical data related to customers' business behavior. Thus, the role of risk management division is immense. Risk management division is the main unit in charge of individual credit risk assessment in the following segments: initial crediting, collection management and collateral management. Consequently, one of the main task of risk management division are: (1) restructuring, which includes business renewal or refinancing, monitoring of the problematic loans, watch lists, stress renewal or refinancing, (2) liquidation, involving the following crucial steps: collection from the bankruptcy, collection from the collateral, sale of business, sale of receivables, (3) reporting and analysis involving delay reports, work-out reports, provisioning management, and assistance in budgeting process.

As it can also easily be seen on the table, both the architecture and instruments are the same in the case of both models.

The results also indicate that the control and monitoring within the model are similar within both groups. EG divides credit customers in 3 zones depending on the risk level: red, yellow and green zone. Furthermore, red zone relates to the most risky customers of the portfolio, yellow zone indicates the zone of medium risk and green zone represents the zone of the low risk. Having classified client in the appropriate zone, the corporate credit risk manager immediately sends information to the responsible account manager in order to organize the meeting with potentially problematic customers and prepare adequate strategy for the customers i.e. collection of the receivables in order to diminish the chances of default. In other words, it means preparing of review application. Generally, the main task of the risk management division is monitoring of credit portfolio on permanent basis. However, if problem occurs, they can track the credit risk related to specific customer i.e. loan. Finally, the results do not differ from the previous results acquired locally.

Furthermore, IG is organizing permanent campaigns for targeting group of customers - PL or NPL, and the same goes both on local and regional level. Furthermore, the campaigns' key parameters are: Gross Exposure included and Current Provisions. Expected and key drivers of campaigns are: (1) Provisions realized, (2) Provisions avoided and (3) NPL back to performing (consequently, action plan for NPL customer is part of this phase). It is important to stress out that the same thing is done locally.

All banks that are the main subject of analysis use internal rating for credit risk. Furthermore, banks in Serbia and IG use Basel II rules, while EG Austria uses Basel 2.5. It is important to emphasize that the main criteria for choosing those banks was the fact that the authors were involved in introducing CMM in the banks in Serbia. Moreover, both banking groups are present in same countries in Europe (IG has more speeded network all over the world – five continents) and have similar number of customers. Nevertheless, average number of customers related to EG is 17 million customers, while IG has approximately 19 million customers, in accordance with the data available in Annual reports of both groups. However, the same sources indicate that the approach to insurance business is different – IG keeps it as part of own business, while EG sold their insurance house (Wiener Staditsche).

The key indicators analyzed within the paper are NPL (%), CAR (Capital Adequacy Ratio), ROE (Return on Equity) and quality of credit portfolio. NPL, CAR and ROE will be compared with an average number related to Austrian, Italian and Serbian banking sector. Having in mind applied risk management regulation in those countries it is important to emphasize that in Serbia banks calculate CAR, however in Austria and Italy banks calculate Core Tier 1 ratio. Thus, this indicator in Austria and Italy will be considered as CAR for the purpose of the analysis.

Quality of credit portfolio has following baskets in Serbian banking regulation: performing loans (PL), past due loans, substandard loans, restructured loans and doubtful loans (prescribed by official regulation). According to the official data of Serbian banks, performing loans, past due and substandard loans belong to healthy part of the portfolio, which is collected up to 90 days. Consequently, the focus of analysis will be Serbian banks, having in mind the fact that relevant information regarding group level have not be found.

The main source for acquiring the relevant information were the official financial and annual reports of EB, BI and their groups, disclosure requirements for Pillar 3 of Basel II (BI and EB), supervisory report of National bank of Serbia and reports of International Monetary Fund (IMF) available on their sites. The relevant period of analysis is within 2007 to 2013.

However, there is the difference in the quality of information announced in official reports regarding analyzed banks. For example, regarding Serbian banks we have discovered that EB has better and more transparent risk management report comparing to BI in terms of available data related to accepted risks. Furthermore, analyzing Group (European) level, different regulation is applied. For instance, banks present in annual reports wider range of profitability and risk indicators (such as Net

Interest Margin, Cost to Income Ratio, Loan to Deposit Ratio, Core Tier 1 ratio, Tier 1 ratio, Total Capital Ratio, Risk Weighted Assets) comparing to the reporting of daughter banks in Serbia. IG gives more information about the quality of credit portfolio in comparison to EG. Finally, there is a difference in the segmentation of customers in terms of criteria which are used for it.

At the same time this is limitation of the analysis. Finally, indicators used in the analysis are common for both banks, all acquired in annual reports of banks.

3. RESULTS

The results revealed the fact that both Serbian banks have accomplished better results in managing credit risk in comparison to overall Serbian banking sector, since 2011. Furthermore, the credit portfolio has been increased in both banks (for example IB had five times bigger volume of loans in use comparing to EB), where corporate customers have the biggest percentage of the overall portfolio (for instance IB had four times bigger volume of approved loans to corporate customers in comparison to EB). Nevertheless, results regarding NPL and ROE level are satisfactory. The results involving CAR indicators of both banks show that the acquired level is similar to overall level in the Serbian banking sector. Finally, the research unanimously points out that BI introduced better CMM, thus achieving lower level related to NPLs in comparison to both EB and the Serbian banking sector (Barjaktarovic et.al, 2015). The previously said can be seen on the following graph:

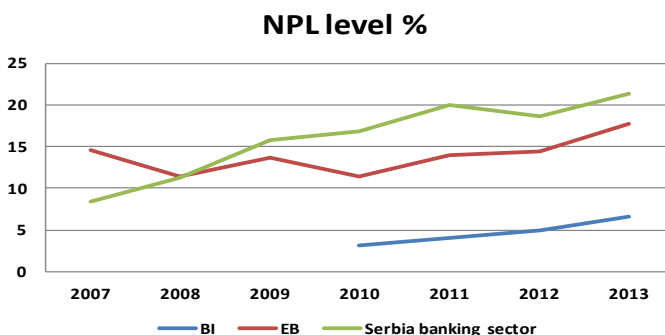


Figure 1: NPL level in% related to BI, EB and the overall Serbian banking sector

Source: Bank's Internet site (2015) *Annual reports and Disclosure of data and information (3rd Pillar of Basel II) for the period of 2007 to 2013.*, National Central Bank (2015). *Quarterly reports on Performance of Serbian banking sector in the period of 2007 to 2013.*

If the analysis is applied on the group level, we can conclude that NPL on group level is proportionally lower in comparison to the level related to daughter banks in Serbia. However, there are differences in results of applied CMM. IG implemented better CMM model, because the NPL level was lower. Furthermore, IG had NPL level lower than overall Italian banking sector had (while EG had NPL above the overall Austrian banking sector level). Finally, BI has achieved lower NPL comparing to IG since 2010.

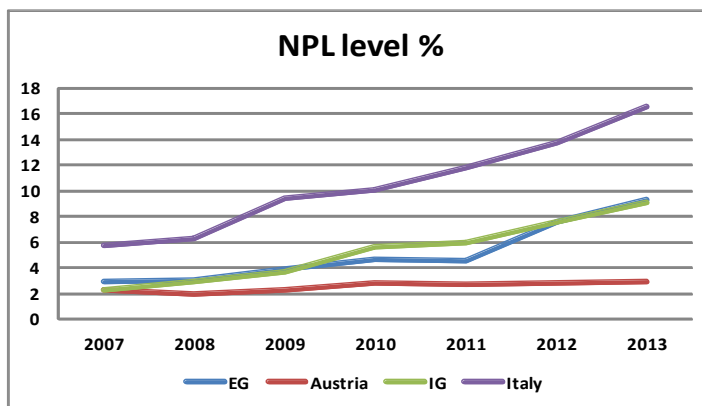


Figure 2: NPL level in% related to EG, IGB and the overall Italian and Austrian banking sector

Source: Bank's Internet site (2015) *Annual reports and Disclosure of data and information (3rd Pillar of Basel II) for the period of 2007 to 2013.*

Furthermore, ROE indicator values had decreasing trend on the group level, while it had increasing trend values for Serbian banks. Reasons are connected to the appliance of different risk management regulation and current country risk where groups perform their business activities. However, if we compare banks performance on both local and group level, we can see that financial institutions are more successful in comparison to average country indicators, which can be seen on the following graphs. Moreover, ROE level related to BI increased to 8.7%, while EB had ROE of 10.42%, which present better results in comparison to the general level of the Serbian banking sector (3.81%) in 2013. Undoubtedly, the conclusion can be made that the implementation of CMM influenced banks performance on both level, resulting in better results related to overall profitability indicators in all three countries: Serbia, Italy, and Austria.

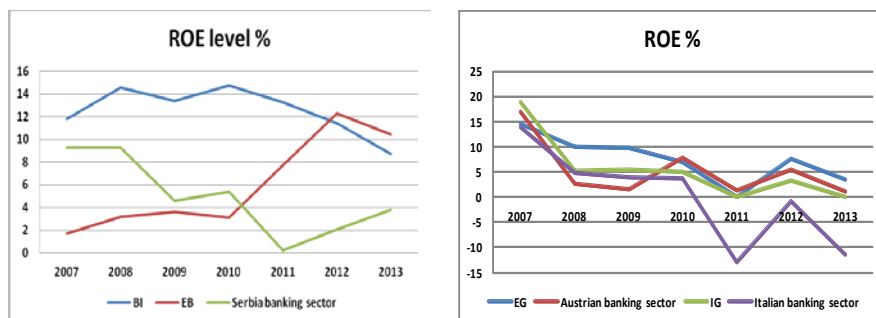


Figure 3: ROE level in% related to BI, EB, EG, IG and the overall Italian Austrian and Serbian banking sector

Source: Bank's Internet site (2015) *Annual reports and Disclosure of data and information (3rd Pillar of Basel II) for the period of 2007 to 2013.*, International Monetary Fund (2015), *Financial Soundness Indicators*.

If we take into consideration CAR indicator, the result show that it has higher values in the case of Serbian banks (20% average), in comparison to the group level (11% average). The main reasons are connected to the appliance of different risk management regulation and different possibilities for investing money.

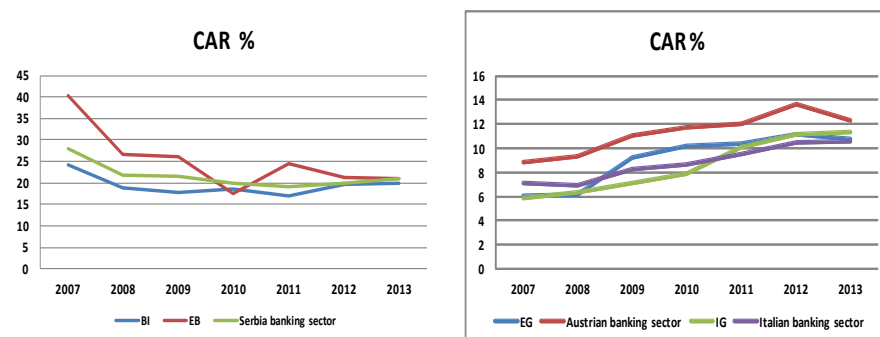


Figure 4: CAR level in% related to BI, EB, EG, IG and the overall Italian Austrian and Serbian banking sector

Source: Bank's Internet site (2015) *Annual reports and Disclosure of data and information (3rd Pillar of Basel II) for the period of 2007 to 2013.*, International Monetary Fund (2015), *Financial Soundness Indicators*.

Furthermore, the results point out the fact that the quality of credit portfolio of both Serbian banks is quite satisfactory (shown on graph 5). The majority of loans are in the category of healthy loans which are collected in the period up to 90 days from due date of instalment. As a result, the implementation of the CMM model in both banks is influencing the quality of portfolio in 2011, where BI achieved higher volume related to restructured loans in comparison to EB.

However, EB had higher volume related to doubtful loans since 2010. Consequently, this may be used as the main reason why BI had lower NPL in comparison to EB in the period of analysis (Barjaktarovic et al., 2015; BI, 2007-2013; EB, 2007-2013).

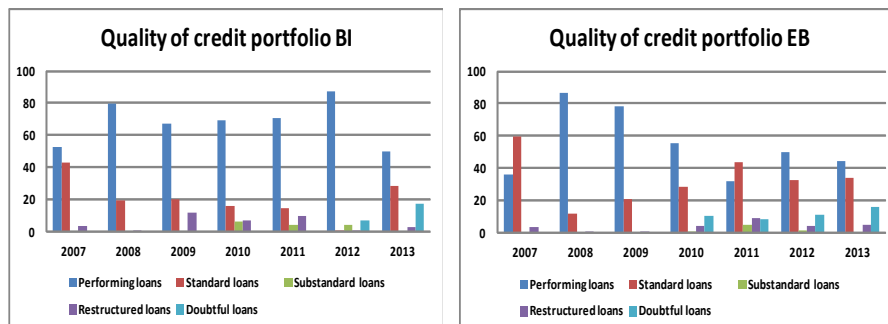


Figure 5 Quality of corporate credit portfolio in % related to BI and EB in the period of 2007 to 2013 (%)

Source: Bank's Internet site (2015) *Annual reports and Disclosure of data and information (3rd Pillar of Basel II) for the period of 2007 to 2013.*, International Monetary Fund (2015), *Financial Soundness Indicators*.

Consequently, the main hypothesis of the research is confirmed, pointing out that efficiently applied CMM provides credit portfolio of good quality and satisfactory level of profitability of the bank. As we can see on the graph the performing loans, standard loans and substandard loans make the biggest part of the overall portfolio, indicating a good quality of the banks' portfolio. However, doubtful loans have increasing trend, correlating with the general issue related to illiquidity of the companies in Serbia, however this trend is below the country average. Furthermore, NPL level related to BI was 6.67%, while EB had NPL of 17.67% which was lower in comparison to overall level related to the Serbian banking sector (21.4%) in 2013. Finally, it is essential to emphasize that both implemented CMM assisted banks in developing an appropriate and well-established corporate credit portfolio structure.

In the end, the results unanimously revealed that on the group level, IG implemented CMM more successfully. Thus, NPL of IG is on lower level in comparison to the Italian banking sector. However, BI had lower NPL than IG, indicating a good portfolio management on local level, which can be a positive and reassuring signal to other banks operating locally for developing and implementing similar concept.

4. CONCLUSION

Within the conditions of economic turmoil, both Intesa San Paolo Group and Austria Erste group, as leaders on CEE market, implemented CMM in 2010. They introduced tailor made models, in accordance with their organization and type of customers. The purpose was clear and unambiguous: the main aim of the model introduction was to decrease NPL level and to increase profitability. Furthermore, the organization of the model is different, considering the fact that there is different group policy regarding risk management and organization of the business. Moreover, architecture (creditors and debtors) and instruments (source of repayment) are the same in both banks. However, control and monitoring within the system consistently follow internal procedures and policies, consequently indicating slightly different results in both banks.

Finally, the main hypothesis is confirmed i.e. the results regarding both applied CMM are good, due to the fact that they provide satisfactory level of NPL and profitability of banks. However the slight differences may be observed. For instance, IG implemented better CMM, considering the fact that NPL level is lower in comparison to EG. Serbian banks, BI and EB had better results in managing credit risk than Serbian banking sector in the period of 2010 to 2013, in terms of NPL, quality of credit portfolio and ROE. Finally, the results show that IG had better results in comparison to Italian banking sector in terms of NPL comparing to EG (whose NPL was above the average level of the Austrian banking sector). In the end, it is important to stress out that BI had lower NPL and higher ROE than IG (while EB had higher NPL and higher ROE than EG).

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REASONS FOR THE INCAPABILITY OF BANKS IN BOSNIA AND HERZEGOVINA TO COLLECT PAST DUE RECEIVABLES

JEL classification: G21

Abstract

The basic idea of research is order to answer questions about the number and characteristics of problems with claims collection and risk management of claims collection. Research was done at thirty-two commercial banks in B&H (twenty-three having head office in FB&H and nine in RS). The current economic crisis and recession are affecting most countries and their economies; they wish to overcome it as soon as possible and with the fewest consequences. Problems with uncollected claims arise at the beginnings of a crisis; they announce the crisis and deepen it strongly. From this point of view, it can be said that uncollected claims are, at the same time, the cause and the consequence of economic crisis and stagnation. Uncollected claims issues exist in every country, in all economic systems and at any given time. The only variable is their extent and intensity. In Bosnia and Herzegovina, these problems are more visible than in other countries for many reasons and circumstances because there are no appropriate mechanisms for their removal. Moreover, the government authorities are not making an effort to implement certain measures to change and improve the present situation. The most obvious example of this are companies that exist, function and do business although they have not paid notes payable for months (or

years); they are illiquid and because of them creditors cannot collect their claims. In this way, banking is also threatened. In some cases even instruments for ensuring collection of claims are of no use, and what is more, the legal system does not function properly so uncollected claims cannot even be collected by court proceedings. The reasons why banks in B&H cannot collect past due receivables are not only the consequence of economic crisis but are also caused by other reasons and different circumstances. The basic problem is that uncollected claims are not managed efficiently, that the legal state does not function, that the laws are not enforced, that legal regulations are not appropriate and that there are illiquid companies on the market as well as those which otherwise would not operate in a developed economy.

Key words: *risks of claims collection, instruments for collection of claims and instruments for ensuring collection of claims, risk management of claims collection.*

1. INTRODUCTION

Concerning the number of companies that have been forced into liquidation and the ones liquidated, it could be concluded that the illiquidity problem in B&H is not a great issue as it might seem, especially if one takes into account the data on outstanding liabilities and uncollected claims. Such conditions in companies affect the state of the banking system so the inability to collect accounts receivables also puts banks into a difficult situation, their liquidity and successful business activities are threatened.

This unveils the inefficiency of the legal system and market economy because there are illiquid companies among business entities which would not exist or operate on a market in countries with a developed market economy. The problem lies in illiquid, but also liquid companies (and government bodies) that tolerate this situation, which could lead to the conclusion that they are not aware of the magnitude of the illiquidity problem that can cause an overall financial, economic and social collapse.

It is obvious that illiquid subjects are trying to survive in any possible way, while it is also understandable that they are sometimes helped by liquid companies which offer them goods on credit or deferred payment with the goal of overcoming the crisis, or because liquid companies cannot otherwise sell their products and services to those who are capable of paying for them. However, it is not unreasonable that banks and other creditors, or even government bodies, act in the same way in order to meet trade unions' demands, to deal with unemployment issues and for other reasons.

It is not praiseworthy that this is done massively and unselectively, even for companies that are illiquid on the long run and those that experience liquidity issues from time to time, and those illiquid for a short period of time. This is what is wrong and not reasonable and what needs to worry the government authorities because, in this way, they only show the lack of authority and competence.

The problem will not be easily solved because private sector and private ownership are still not dominant in B&H, and what is more, this predominance is still held by the state, public and not private ownership, which is a relatively great direct and indirect influence the state has in the economy. Furthermore, the issue becomes more serious because the combination of public and private ownership creates objective circumstances for financing illegal activities or transferring public capital into private within the “grey economy”.

Only in this way one can understand the behaviour of managers in companies that are not privately owned; their lack of interest and irresponsibility for their company’s success,¹ their ignorance, unsatisfactory awareness and education about the importance of risk management of claims collection, and the possibility of reduction of collection risk if these risks are handled efficiently.

The situation is completely different in private companies because their managers are mostly owners or are directly supervised by the owner, so they are more interested in the company’s well-being, its assets and resources, and they concern themselves with claims collection more than managers in public and state-owned companies.

Research on professional qualifications of managers shows a lower level of education in private companies, which might imply poor education on managing payment risks, while the situation with uncollected claims in private and state-owned companies reveals the opposite, uncollected claims being fewer in private than in public and state-owned companies.

Relatively large and uncollected claims also exist in private companies, and some managers even approve goods delivery to buyers even when they are not entirely sure the goods will be paid on time, and sometimes they do this without payment or instruments for ensuring collection of claims.

In most cases those are their long-term buyers who they want to help, buyers that are already in debt with them so the managers hope these deliveries will help them overcome the crisis and they will collect claims later. In other cases, they are urged to do this because they cannot find a satisfactory number of buyers who want to pay for goods in cash or by a secure payment instrument.

¹ They only have the moral responsibility towards the supervisory board, that is, towards government bodies that name the members of supervisory boards

2. BANKS AND BANKING OPERATIONS

Banks are financial intermediaries between clients who have surplus financial assets and those who lack financial assets, operating in a way that they take money from the ones with surplus assets and approve loans to those having fewer financial assets. Banks pay interests to clients from whom they take the money and collect interests from approved loans, and collect the difference in the rates as profit. Besides these basic functions, banks provide other financial services, including payment transactions. For a bank to be successful, security, liquidity and profitability are of great importance, and these three segments are interrelated, mutually conditioned and interdependent.

Security is based on a bank's stability, its liquidity consistence, and its insurance that people who invest in it will not lose the investment and that they will profit with accrued interest. This can be achieved only by banks that do business successfully, which are liquid and profitable. The security of savings deposits in banks is increased by states directly or through competent authorities and agencies, which furthermore guarantees payment of a certain amount of savings deposit in cases of liquidation.²

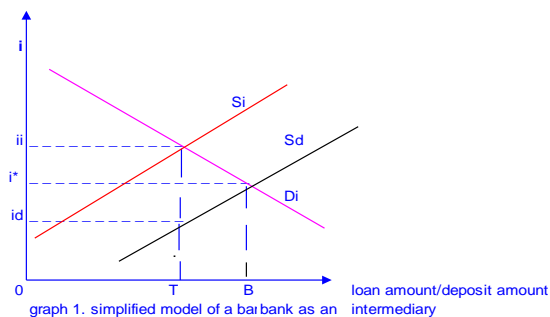
Liquidity implies that banks can meet their own and their clients' liabilities. As an authorised organization for handling payment transactions, a bank carries out its clients' payment transactions, which includes meeting clients' liabilities and their claims collection.

A bank does this by using assets on clients' accounts, and in some cases a bank will be urged to meet its client's liabilities even when the client does not have enough resources as it is the case with bank guarantees, which are issued as claims collection insurance, or with irrevocable credit payments, and other payment and instruments for ensuring collection of claims. This means that, in some cases, a bank will meet its client's liabilities when the client has no available resources on their account, while problems may arise when the client has the necessary resources but the bank cannot meet the client's liabilities because it is illiquid. That is why liquidity of banks is essential, and it is connected with security of savings, deposits and investments, meeting the bank's and client's liabilities and ensuring claims collection, and with the bank's profitability. Banks cannot be successful and profitable if they are not secure and liquid, security and liquidity depend on the quality of banking, economic and social system. In an unstable environment, unreliable economic and social systems, banks and other companies are not secure.

Taking into account the importance of banks for a monetary system of a state, for economy and payment transactions, banking operations are controlled by legal regulations. Moreover, banks are supervised, regulated and directed by a central bank or an independent banking agency, and in some cases they are monitored by both institutions. The main role of banks is to intermediate, and this model of

² In Bosnia and Herzegovina, savings deposits are secured by the Agency for deposit insurance

intermediation between a client with surplus resources and a client with fewer assets can be illustrated by the following graph.



Si: credit offer curve

Sd: deposit offer curve

Di: credit demand curve

OT: credit amount demanded by client

OB: credit amount demanded by clients at an interest rate not including banking operations costs

i^* : interest rate not including banking operations costs

ii: credit interest rates

id: deposit interest rate

Bank interest (as an expense of banking intermediation) is the difference between credit interest rate (ii) and deposit interest rate (id). The graph shows that the credit offer curve and deposit offer curve are cost sensitive. If a bank is willing to pay greater price for deposited money (higher interest rate on deposits), it will be able to accumulate more deposits. If it is willing to offer credits at lower interest rate, the bank will be able to offer more credits. The model is simplified because interest rate is not the only factor that affects the amount of money banks can offer through credits.

Economic growth can also influence the amount of banking activities. In the conditions of economic growth, subjects have a greater need for financing sources which directly leads to the increase of credit activities of banks, while in conditions of stagnation or negative tendencies in the economy, credit activities of banks are reduced. Besides the simplified economic model, a bank as a business company can be described by a balance model:³

$$\text{assets} = \text{liabilities} + \text{equity}$$

³ Rose P.S. Menadžment komercijalnih banaka, Mate, Zagreb, 2005. op. cit. pp 117- 146

In its everyday operations, a bank pays deposits to those who invested their resources (depositors), offers credits to clients and meets their other immediate liabilities, so it is in constant need for a certain amount of liquid resources. Liquid resources in banks represent the money and assets that can be turned into money in a short period of time and with no value loss. For the purpose of their liquidity, banks form liquidity reserves which can be primary and secondary. Primary reserve includes cash, deposits in other banks and in a central bank, and every bank is obliged to have these. Banks do not have any yield on these reserves, or the yield is very limited, so the reserves are reduced as much as possible, but banks also keep a certain amount of reserves in order to have liquid assets that are needed to operate and meet legal regulations.

If for any reason a bank cannot provide liquid resources from its primary reserves, it supplies liquid resources by borrowing on the money market or taking resources from its secondary reserves, which include short-term debt securities (most often government bonds, bank bills and similar) and term deposits in banks that a bank can have in its assets.

Secondary reserves enable banks to gain profit, but less than the profit made by investing. The basic characteristic of secondary reserves is the fact they can easily be transferred into cash with no loss of value, and the amount of assets in secondary reserves mostly depends on the liquidity of the market where the bank does business and operates.

If the liquidity of the market is high and if the bank can buy sufficient amount of liquid resources on the money market at a reasonably low price, it will have a smaller amount of assets in its secondary reserves. On the contrary, it will have more assets in secondary reserves.

Commercial banks implement their business plans and achieve financial results by performing the following activities⁴:

- Accepting deposits and other money resources from the public with repayment – this is also a basic advantage banks have in comparison to non-bank financial institutions.
- Granting credits, including consumer and mortgage loans, factoring and forfaiting.
- Providing means of payment in the form of electronic money.
- Financial leasing
- Payment operations services
- Issuing and managing means of payment (credit cards, traveller's cheques, bank drafts)
- Issuing guarantees and other warranties
- Trading for themselves or for a client:
 - By instruments of money market (cheques, bills of exchange, deposit certificates, etc.)

⁴ Leko, V. , Financijske institucije i tržišta I, Ekonomski fakultet, Zagreb 2002. p 131.

- By foreign currencies
- By financial, futures and options contracts
- By foreign exchange and interest rate instruments
- By transferrable securities
- Participating in stock issuance and services related to the issuance
- Counselling in operations within capital structures, industrial strategies and related activities; counselling connected to mergers and acquisitions of companies
- Intermediation in money trade
- Managing portfolio and counselling
- Keeping and managing securities
- Credit services
- Keeping and managing services, and similar (or equal) to the above, it is regulated by the Law on banks of the Federation of B&H.⁵

Vital functions of contemporary banking institutions are shown in the following illustration:⁶

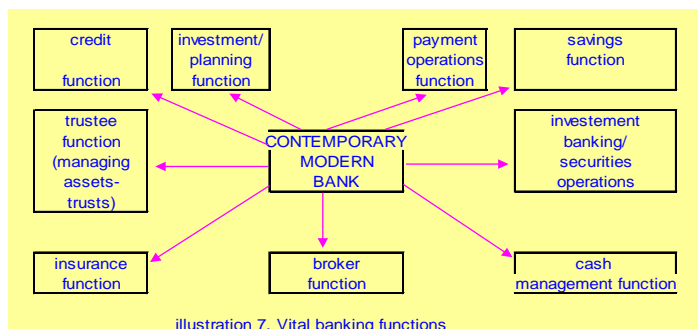


illustration 7. Vital banking functions

3. MANAGING ASSETS AND LIABILITIES OF A BANK

From the point of view of assets and liabilities management, the management is concerned with net interest income, that is, the bank's profit; stockholders are interested in capital's market value, that is, in the bank's stock price, and the supervisor's interest lies in the management of capital.⁷

Development of capital market and the rising number of non-bank financial institutions have influenced the redefining of the role of banks and the

⁵ Official Gazette of the Federation of BiH, number 39/98, 32/00

⁶ Rose P.S. Menadžment komercijalnih banaka, Mate, 200. p 7.

⁷ This is stated and ordered by the Basel III. Management of capital includes strict control over liquidity and adequacy of capital, and adequacy means that a bank's capital can cover potential losses which can arise as a consequence of risks in banking operations

way they do business, and securitization and derivatives operations are seen as innovations.⁸

New non-standard operations that have appeared in commercial banks have increased the number of off-balance sheet items and non-interest income.⁹

From the point of view of risk management it is important to state that banks whose clients have high quality risk management are exposed to risk to a lesser extent.¹⁰

Banking operations in the FB&H are regulated by the Law on Banks and by the decisions made by the Banking Agency of FB&H. In accordance with the decision on “Minimal standards for managing credit risk and classification of bank assets in FB&H”, a bank is obliged to classify assets that are exposed to credit risk into adequate categories, at least once in every three months:

Percentage of reduction of risky claims under BiH regulations		
Categories	Days of delay	% of reduction
A	0	2
B	to 90	5 to 15
C	90 to 180	16 to 40
D	180 to 270	41 to 60
E	more than 270	100

A bank determines procedures for practical implementation for each individual category. In category A the percentage of reduction is 2% (except those labeled as 100% secure), in category B this percentage is from 5% to 15% if the client delays payment up to 90 days. In the third category (C) the reduction of risky claims is from 16% to 40% (for the delay period from 90 to 180 days), and in the fourth category (D) the reduction is from 41% to 60%, from 180 to 270 days of delay. In category E the reduction is 100% (for delays longer than 270 days).

Evaluation of disputable claims, as well as their accounting treatment, is regulated by the revised International Accounting Standard (IAS 39. and 37.), which has been implemented since January 1st 2013. Under earlier legal regulations and adequate IAS standards, accounting treatment included an obligation of making provisions of the same amount as the disputable claim, as a counterpart to the amount treated as the provision expenditure. Also, there were reductions of claims from a less risky category and debits from riskier ones (the same amount of claims transferred from category A to category B).

⁸ In these activities the USA market is much more developed than the EU market

⁹ Sinkey J. F., Jr. Commercial Bank Financial Management in the Financial-Services Industry, sixth edition, University of Georgia, 2002. op.cit. 1 pp 467-508

¹⁰ Sinkey J. F., Jr. Commercial Bank Financial Management in the Financial-Services Industry, sixth edition, University of Georgia, 2002. op.cit. pp 467-508

By implementing the new regulations (IAS 39.) provisions are no longer recorded for the amount of risky (disputable) claims, instead, the regulation introduces a correction of value of risky claims and expenditure of the reduction of claims on a bank's assets.

This novelty in accounting treatment will result in the reduction of a bank's assets and liabilities for the amounts of earlier recorded provisions, which will contribute to a more realistic illustration of the extent of bank's assets.¹¹ The novelty (based on IAS 39) is also the fact that a bank's disputable claims remain in assets even after a write-off of 100%, as opposed to the former regulations under which such claims were recorded off-balance sheet.

The decision on capital adequacy leads to the structure of warranty capital being defined, as well as capital adequacy, which commercial banks must ensure to cover possible losses, losses that may arise as a consequence of business risk exposure. Capital adequacy ratio is a measure of the amount of a bank's liable capital expressed as a percentage of its risk-weighted asset, and the minimum amount is legally regulated.

When it comes to risk management methods, banks are ordered to implement the Basel Agreement on capital ("Basel II" or "EU Capital Requirement Directive"), which serves to enforce higher standards of bank protection and to develop greater sensitivity to risks in business, and also to establish a more adequate system of limitation of specific risk exposure, as well as a system of capital adequacy of commercial banks. In this way banks make their own models for evaluating risks, and for that they need to establish internal database and gather data on clients, past events and future plans.

4. RESEARCH ON UNCOLLECTED CLAIMS IN BANKS IN B&H

At the end of last year, there were thirty-two commercial banks in B&H, twenty-three having head office in FB&H and nine in RS¹². Among them, twenty-three banks are members of the insurance programme implemented by the Deposit Insurance Agency.

Research was done in order to answer questions about the number and characteristics of problems with claims collection and risk management of claims collection. It has been found that there are uncollected claims in all banks; that citizens who were granted loans did not meet their liabilities. Moreover, private and state-owned companies (public and non-privatized) did not meet their liabilities on time and the structure of uncollected claims is different across banks.

¹¹ The size of a bank is most commonly measured by the size of its assets

¹² One of the banks ("Bobar Banka") is in the process of insolvency and liquidation

Uncollected claims from private companies amount from 11% to 34% of the total number of uncollected claims; among non-privatized companies uncollected claims range from 16% to 40%, while among the public the percentage is from 14% to 54%.

Because the respondents in banks were not authorized (were not allowed or did not want) to reveal exact information on the amount of past due receivables, the questions were adjusted for the answers they could provide. Consequently, 70% of respondents stated that the amount of uncollected claims in their banks was “large/unbearable”, and only 30% of respondents stated that the number of uncollected claims was “small/bearable”.

It has also been established that there are significant differences in certain banks in the maturity of past due receivables. The greatest number of total claims are past due up to 30 days (38%); 16% of uncollected claims are past due up to 60 days; 14% are past due up to 90 days; 20% are past due up to 180 days, and 12 % are past due a year or more.

Of the total number of uncollected claims (on December 31st 2014) the greatest number of those were not taken to court (63%), and only 11% were written off. The largest number of past due receivables from the public was collected from debtors (67% as an average for all banks), 18% from guarantors, 9% by collection and insurance instruments, and 7% were not collected at all.

The greatest percentage of collected claims after maturity date were collected by compensation (27% on average), and the smallest number of them were settled by court proceedings (only 4% on average). Some banks collected only 9% of past due receivables by compensation, while in the same way others collected 43% of the total number of claims after maturity date.

Sixteen percent (16%) of claims were collected by cession and assumption of debt after maturity date, 11% of claims were collected by assignment and assumption of contractual liability, 14% of claims were collected by collateral promise, and 7% of claims were not collected at all after maturity date.

Considering the structure of uncollected claims, it can be concluded that non-privatized companies owe 36% of past due receivables, private companies owe 44% and the public owe 11% of past due receivables.

As far as collection instruments and instruments for ensuring collection of claims are concerned, banks used drafts, mortgages, warranties, term deposits, and in some cases more than one instrument.

In all banks a draft was used as collection instrument and instruments for ensuring collection of claims in 17% of cases; mortgage was used in 32% cases; warranty in 15% and term deposits in 11% of cases, while in 15% of cases more instruments were used.

When it comes to grading the quality of collection instruments and instruments for ensuring collection of claims, none of the respondents graded the draft with a “five” or “four”; one respondent gave the instrument a “three”, two respondents graded the draft with a “two”, and nine respondents with the grade “one” (16 points).

Mortgage was graded a “five”, it was given two rates of “four”, six rates of “three”, two rates of “two” and one rate of “one” (36 points), while warranty was graded a “five”, five rates of “four”, one rate of “three” and two rates of “two” (36 points).

Term deposit was graded with the highest rate and all the respondents graded it a “five” (60 points) so it is undoubtedly the best rated instrument.

Reasonably good grades were given to the option “more than one instrument” which was graded with two rates of “five”, five rates of “four”, three rates of “three” and two rates of “two” (43 points).

It can be concluded from the structure of indebtedness that, on average, every fifth bank order was not settled on the maturity date (23%), that 19% of orders were paid after maturity date and that only 14% of cases were taken to court for past due receivables.

4.1. Reasons for uncollected claims are not only economic

The research has shown that banks granted credits to borrowers even in cases when they were not sure (or convinced) that the borrowers would be able to pay off regularly. This was especially the case in the period after privatization of banks, and it is possible that influential individuals purposely abused their power in such situations. This could not be confirmed nor denied by respondents, but almost all of them stated that there was a significant amount of uncollected claims from that period.

Banks granted almost a quarter of credits (24%) even in cases when those who approved the credits were aware that “there could be problems with collection” from debtors, and in 14% of cases credits were approved because there were no “more reliable borrowers”.

The functioning of legal state and judicial bodies can be rated on the basis of the amount of paid past due receivables by court proceedings. It was impossible to collect accurate data on the amount of money, so certain conclusions can be drawn from the following:

Only some of the banks collected 6% of claims by court proceedings, and some of them collected claims in this way in 28% of cases. Banks partially collected from 45% to 68% claims by court proceedings, while no claims were collected from 9% to 21% of cases.

The situation is almost identical with written-off claims so these data are only presented in a descriptive way and proportionally to the total number of claims.

According to respondents, 32% of written-off claims are “large/significant” and 69% are “small/insignificant”.

Banks, as authorized organizations for payment transactions, conduct payments for their clients via transaction accounts and have their clients’ bank accounts records.

These data are managed individually for each bank, and in a bank they are managed separately for each client and for each individual transaction account, and every company can have (and they do) more than one transaction account in different banks.

For this reason the research included the data related to active, blocked and closed accounts, from which one can draw conclusions about the state of the accounts. Furthermore, the accuracy of research results is supported by the data on the structure of transaction accounts provided by the official data of the Central Bank of B&H.

A proportionally large number of closed transaction accounts implies problems with companies’ business and the lack of resources, problems with bank failure, with work termination or liquidation, but it does not state to what extent uncollected claims and uncovered liabilities are a cause of this, or if the situation is a consequence of other circumstances. Companies whose accounts have been closed or blocked do not have to be in a bad financial situation and it does not mean that they do not have available money on transaction accounts in other banks.

5. CONCLUSION

Problems with uncollected claims in B&H are great, complicated and are not easily solvable. The basic problem is that uncollected claims are not managed efficiently, that the legal state does not function, that the laws are not enforced, that legal regulations are not appropriate and that there are illiquid companies on the market as well as those which otherwise would not operate in a developed economy, they would be excluded from the market, and would fail and reorganize or would be liquidated.

Another problem also arises because of the fact that there were no adequate models of instruments for ensuring collection of claims or that only one instrument was used prior to concluding sale contracts and establishing credit relations. Moreover, the greatest drawbacks definitely lie in a company’s environment, in the social and economic systems which are not functional or

sensitive to illiquid companies that cannot do business successfully, and these systems do not exclude such companies from the market.

It is not an insignificant issue that creditors neglect the function of risk management of claims collection and accept payment, or consider instruments for ensuring collection of claims as if they were completely safe and not risky, as if they were only a formality and have no value, as if they were a worthless piece of paper or a paper that gives rights but cannot be cashed.

Because of this it is extremely important to undertake reforms in this region and adopt practice from developed countries, use their experiences and develop economic and social systems which will help and stimulate successful entities and demotivate companies that are unsuccessful, and automatically (by law) open insolvency proceedings of entities that have been blocked longer than the prescribed period.

Research results have shown that banks granted credits even in cases when they were not sure debtors would be able to pay off, and this was especially done in the period right before and after the privatization of banks. So, it is not excluded that influential individuals purposely abused their power in such situations. According to research results, banks approved almost a fourth of credits (23%) even when those in charge of approving were aware “they could have problems” with the collection of claims from debtors, and in 12% of cases they did this because they had no “more reliable debtors”.

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BUSSINESS ETHICS

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BUSINESS ETHICS AND ECONOMIC GROWTH: AN EMPIRICAL ANALYSIS FOR TURKISH ECONOMY

JEL classification: O47

Abstract

The roots of the science of modern economics are originated from the ideas of Adam Smith who is not a pure economist but a moralist-philosopher. Basic concepts in the Wealth of Nations which is perceived as the hand book of economics depend on the arguments that Adam Smith suggests in his Theory of Moral Sentiments. In this theory, business ethics as a part of the Law of Sympathy appears as one of the factors that provide the invisible hand to operate properly. In light of this property, it is possible to assume business ethics as one of the components of the market mechanism. In this context, this study aims to analyze the link between business ethics and economic growth in the Turkish economy for the period 1988-2013. To this end, the study employs bounced cheques and protested bonds for representing the degradation of business ethics and tries to show how this degradation affects economic growth. Either illustrative or empirical results show that business ethics is an important determinant of economic growth in the Turkish economy and damaging it negatively effects the growth rate of the economy.

Key words: Business ethics, Economic growth, Turkish economy

1. INTRODUCTION

The roots of the science of modern economics are originated from the ideas of Adam Smith who is not a pure economist but a moralist-philosopher. Basic concepts in the *Wealth of Nations* which is perceived as the hand book of economics depend on the arguments that Smith suggests in his *Theory of Moral Sentiments*. In this theory, business ethics as a part of the Law of Sympathy appears as one of the factors that provide the invisible hand to operate properly. In light of this property, it is possible to assume business ethics as one of the components of the market mechanism.

When we come back to modern macroeconomics, it is seen that Max Weber (1904) is the pioneering study that systematically analyzes the relationship between business ethics and economic development. According to Weber's ideas, any kind of ethics is an important component of cultural heritage and religion. In this regards, he argues that cultural endowments which stem from strong religious beliefs could facilitate economic performance. He also suggests that the basic dynamic which constituted the capitalism in northern Europe, as transforming attitudes toward economic activity and wealth accumulation, is the Calvinist doctrine of predestination (i.e. Protestant Business Ethics).

In the present time, many of the people in business sector may assume that ethical behavior is out of the range. Businessmen or women are assumed as entrepreneurs who may dare anything for profit. Customers are seen as people who are ready for doing anything in order to buy goods and services at lower prices. However, Rea (2010) rejects this and gives some examples about how people in the business environment act in ethical ways:

- It is not uncommon to observe customers who have been undercharged for goods volunteering this information to shop assistants.
- Many individual and firms pay the expected amount of tax on their income, despite opportunities to use tax loopholes and avoidance mechanisms.
- Many people go beyond what is strictly required in their employment contracts because they want to do a good job.

Although it seems as a personal decision to act ethically, business ethics generally reflects an aggregate decision and it is all about the economy. In this sense, one may entitle business ethics as one of the drivers of the continuum of economic activities. Since economic activities are among the engines of economic growth, it may be concluded that business ethics may impact on the growth performances of economies. Given this learning, Naude (2008) put forwards two ethical guidelines for economic growth:

- Economic growth is desirable if the distributive effect increases the welfare of the poorest section in society in the medium term and creates a more egalitarian society in the longer term. If economic growth only

increases the welfare of the middle and upper classes and leaves the poorest people worse off, the social cost in the long run is too high. This is a controversial point. But—following the social contract tradition and notions of prioritarian justice—strong ethical arguments can be made in favor of growth that is measured not in general terms, but by whether the position of the worse-off has improved.

- Economic growth is desirable when it is sustainable in the holistic sense of the word. If economic growth is only conceptualized as empirical data and not also in terms of its social and ecological effects, we will fail the moral demands of inter-generational justice. In governance discourse one could say that economic growth should be embedded in triple bottom-line thinking. The business of business is unfortunately not business alone.

This study aims to analyze the link between business ethics and economic growth in the Turkish economy for the period 1988-2013. To this end, the study employs bounced cheques and tries to graphically illustrate the link between the degradation in business ethics and economic growth, and protested bonds and utilizes the Autoregressive Distributed Lag approach to cointegration by Pesaran et al. (2001) for the investigation of the long-run effects of the degradation in business ethics on economic growth.

2. A BRIEF NOTE ABOUT TURKISH ECONOMY

With her 800 billion dollars GDP in 2014, Turkey is one of the 20 biggest economies of the world today. Especially after experiencing fundamental political and economic transformations in 1980's and turning her face to the world as leaving inward-oriented understandings fully behind, the country has faced with a rapid improvement. Table 1 below illustrates some macroeconomic facts about the Turkish economy. Accordingly, GDP in 2014 is approximately five times bigger than that is in 1995. GDP per capita in 2014 is approximately 3.6 times bigger than that is in 1995. Turkey has a large and active population and thus has a large labor force. However, the unemployment is an important macroeconomic problem for the economy. It seems that Turkish policy makers have achieved to solve inflation problem. After the adoption of inflation targeting strategy, inflation rate has slightly fallen down. Turkish economy is an active trader. However, the country is a net-importer and this creates some disadvantages in terms of balance of payments.

Table 1

Some Macroeconomic Facts about Turkish Economy					
	1995	2000	2005	2010	2014
GDP (Bio)	169	266	483	731	800
GDPPC	2896	4219	7129	10135	10404
Population (Mio)	58.5	63.2	68	72.1	77.7
Labor Force (Mio)	20.8	21.3	22.3	25.6	28.7
Unemployment Rate	7,6	6,5	10,6	11,9	9,9
Inflation (Consumer Prices)	88,10	54,90	10,13	8,56	8,85
Exports (Bio)	33.7	53.5	105.5	155	157.7
Imports (Bio)	41.2	61.5	122.4	195.6	242.2

Source: World Bank, World Development Indicators.

Since Turkish economy has a large body, problems faced in it are also big. In parallel with the subject of the present study, there are some ethical issues that force markets not to operate properly. In these circumstances, channels of market mechanism may be broken down and the whole economy is affected.

Bounced cheques are one of the most common offences plaguing a market. They are among the failures that reduce the level of business ethics in that market. These failures are dangerous either for the improvement of the market or the whole economy. Figure 1 shows the relation between bounced cheques (per 1000 people) and GDP growth in Turkish economy for the periods 2000-2013. Statistics are in natural logarithms. It is clearly seen that there is a strong negative correlation between two indicators. Given this learning, we can simply suggest that bounced cheques in Turkish economy are among the factors that negatively affect the growth rate of the economy.

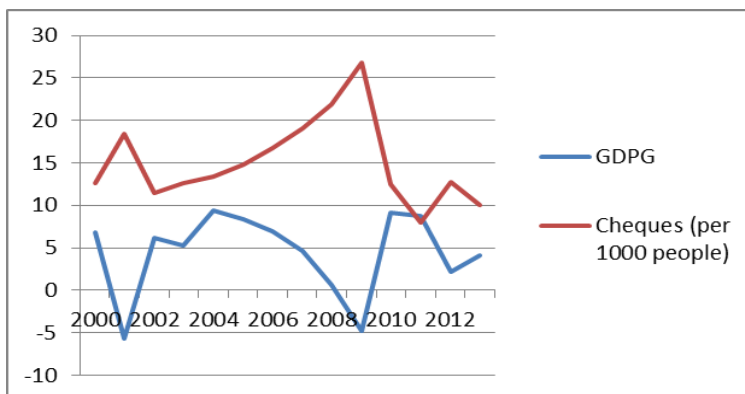


Figure 1 Bounced cheques and economic growth nexus in Turkish economy

Source: Author's own.

3. DATA, METHODOLOGY AND RESULTS

3.1. Data

The study is based on annual time series data covering the time period 1988-2013. Data set includes annual GDP growth (GDPG), gross fixed capital formation in current US dollars (GFCF), total employment (EMP) and the value of protested bonds (PB) in current Turkish Liras. Data related to GDPG, GFCF and EMP were obtained from World Bank, World Development Indicator database, whereas PB is sourced from Turkish Statistical Institute.

3.2. Methodology

For investigating the long-run relations (cointegration) among the time-series variables, several econometric approaches were developed over the last three decades. For instance, while Engle and Granger (1987) uses two-step residual-based procedure for testing the null of no-cointegration, Johansen and Juselius (1990) uses the system-based reduced rank regression approach. But all of these methods concentrate on the cases in which the underlying variables are integrated of order one. This situation inevitably involves a certain degree of pre-testing, thus introducing a further degree of uncertainty into the analysis of level relationships.

Pesaran et al. (2001) developed a novel cointegration method which is known as Autoregressive Distributed Lag (ARDL) approach (i.e. the bounds testing approach) to cointegration. Pesaran et al. (2001) pointed out the advantages of this approach over other cointegration tests (e.g. Engle and Granger (1987), Johansen and Juselius (1990)). While other cointegration methods concentrate on the cases in which the variables are integrated of order one, the bounds testing approach is applicable irrespective of whether the underlying variables are purely I(0), purely I(1) or mutually cointegrated. Finally, Pesaran and Shin (1999) indicate that the ARDL approach performs better in small sample size and yields consistent estimates of the long-run parameters asymptotically distributed as standard normal irrespective of the underlying variables are I(0) or I(1).

The bounds testing approach requires estimating the following ARDL representation of equation (1):

$$\Delta \ln GDPG_t = a_0 + \sum_{i=1}^p a_{1i} \Delta \ln GDPG_{t-i} + \sum_{i=0}^p a_{2i} \Delta \ln GFCF_{t-i} + \sum_{i=0}^p a_{3i} \Delta \ln EMP_{t-i} + \sum_{i=0}^p a_{5i} \Delta \ln PB_{t-i} \quad (1)$$

$$+ \theta_1 \ln GDPG_{t-1} + \theta_2 \ln GFCF_{t-1} + \theta_3 \ln EMP_{t-1} + \theta_4 \ln PB_{t-1} + u_t$$

where Δ is the difference operator, p is the lag length, and u is the serially uncorrelated error term. The ARDL procedure involves two stages. In the first stage, the null hypothesis of no-cointegration relationship in the long-run is tested against the alternative hypothesis of cointegration. Testing cointegration

relationship is based on the F-statistic. Since the asymptotic distribution of this F-statistic is non-standard irrespective of whether the variables are I(0) or I(1), Pesaran et al. (2001) therefore tabulated two sets of critical values. One set assumes that all variables are I(0) and other set assumes that all variables are I(1). This provides a bound covering all possible classifications of the variables. If the calculated F-statistic lies above the upper level of the bound, the H_0 is rejected, supporting cointegration relationship in the long-run. If the calculated F-statistic lies below the lower level of the bound, the H_0 cannot be rejected, indicating lack of cointegration. If the calculated F-statistic falls between the bounds, then the test becomes inconclusive and the error-correction term in this case is used to determine the existence of cointegration. If a negative and significant error-correction term is obtained, the variables are said to be cointegrated.

Once a long-run relationship is established, the second stage of the ARDL procedure is to estimate the error-correction model (ECM) from equation (2). The ECM can be written as follows:

$$\Delta \ln GDPG_t = \alpha + \sum_{i=1}^p \omega_k \Delta \ln GDPG_{t-i} + \sum_{i=0}^p \lambda_k \Delta \ln GFCE_{t-i} + \sum_{i=0}^p \phi_k \Delta \ln EMP_{t-i} + \sum_{i=0}^p \gamma_k \Delta \ln PB_{t-i} \quad (2)$$

$$+ \psi EC_{t-1} + u_t$$

where ψ is the error correction parameter and EC is the residual obtained from equation (1).

Since cointegration among the variables does not ensure the stability of the parameters, one should provide that the cointegration parameters are stable over the time. In this regard, cumulative sum (CUSUM) and cumulative sum of squares (CUSUMSQ) tests for parameter stability developed by Brown et al. (1975) are widely utilized with the ARDL modeling framework. These tests are based on the recursive regression residuals. The CUSUM and CUSUMSQ statistics are updated recursively and plotted against the break points of the model. If the plot of these statistics falls inside the critical bounds, one decides that the coefficients from the estimated model are stable over the time.

3.3. Results

ARDL estimation results presented in Table 2 show that protested bonds are cointegrated to the growth rate of GDP and all coefficients are stable over the time. Analysis has no failure in terms of serial correlation, heteroscedasticity, normality and functional misspecification. The long-run coefficients take place under Panel B indicate that a percent increase in the value of protested bonds decreases the growth rate of GDP by 2.41 percent. The coefficient of PB is statistically significant even at 1 percent level of significance. Finally, negative and statistically significant error-correction parameter reveals that the model has stable equilibrium in the long-run.

Table 2

Results of Empirical Analysis (Dependent variable: lnGDPG)

<i>Panel A: Cointegration</i>	
F-stat	25.98
Error-correction Parameter	-1.28 [0.000]
<i>Panel B: Long-run Coefficients</i>	
Constant	-578.35 [0.090]
lnGFCF	16.85 [0.001]
lnEMP	13.96 [0.427]
lnPB	-2.41 [0.006]
<i>Panel C: Diagnostic Checking</i>	
Adjusted-R ²	0.42
Serial Correlation ^a	3.453 [0.063]
Heteroscedasticity ^b	1.683 [0.195]
Normality ^c	0.124 [0.940]
Functional Form ^d	1.704 [0.192]
<i>Panel D: Stability Checking</i>	
CUSUM	Stable
CUSUMQ	Stable

The critical values for F-statistic are (2.72-3.77) for 10 percent, (3.23-4.35) for 5 percent, and (4.29-5.61) for 1 percent level of significance, obtained from Table CI(iii) Case III in Pesaran *et al.* (2001: 300).

a: The Breusch–Godfrey LM test statistic for no serial correlation.

b: The White's test statistic for homoscedasticity.

c: The Jarque–Bera statistic for normality.

d: The Ramsey's Reset test statistic for regression specification error.

Numbers in brackets are p-values.

4. CONCLUSION

In this study, the link between business ethics and economic growth was investigated in terms of the illustrative link between bounced cheques and the growth rate of GDP by using time series data covering the time period 2000-2013, and cointegration relationship between protested bonds and growth rate of GDP by using time series data covering the time period 1988-2013. For the latter purpose, the study has utilized the ARDL approach to cointegration.

Either illustrative or empirical results showed that providing business ethics positively affects the growth rate of the Turkish economy. Proxies that corrupt business ethics (i.e. bounced cheques and protested bonds) are among the factors that decrease the growth rate of GDP. For instance, there exists a very

strong negative correlation between bounced cheques and the growth rate of GDP, and the long-run relation between protested bonds and the growth rate of GDP is statistically significant and negative. These results imply a policy that is capable of limiting those failures may boost the economy up.

One of the most restrictive things conducting the present empirical analysis is the lack of various and longer data sets. Using different indicators in terms of business ethics with longer time span will definitely increase the reliability of the study. Thus, if this problem is solved, it would be a good opportunity for the future researches.

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BUSINESS AND ENGINEERING ETHICS – SIMILARITIES, DIFFERENCES AND CHALLENGES

JEL classification: M19

Abstract

Issues of applied ethics and its influence on the behaviour of people in the wider social context have been investigated from many different aspects. The aim of this paper is to clarify the fundamental differences and similarities between business and engineering ethics, determine the areas which represent potential source of conflict and explore specific ethical dilemmas that occur with individuals who are engaged in the engineering profession in the business surroundings. Previous research lacks agreement. Practice has proved that the ethical dilemmas are integral part of engineering work due to various challenges such as: relationship between quality and safety, quality and costs, safety and costs; intellectual property issues, etc. Considering that in most cases engineers are employed by business subjects who adopt economic principles, engineering and business aspects of engineering decisions are inseparable. The empirical part of the paper will consist of research of the engineer's attitudes referring to: different domains of engineering in which ethical issues arise, conditions at work associated with ethical issues; common difficulties encountered and the level of support ensured by firm in dealing with ethical dilemmas, and the attitude toward engineering ethics as professional ethics. Theoretical and empirical research are expected to give an evaluation of key areas that determine the ethical challenges faced by engineers and open questions about

guidelines that will assist in solving specific engineering ethical dilemmas.

Key words: *business ethics, engineering ethics, ethical dilemma*

1. INTRODUCTION

Ethical requirements in the modern business environment are getting more pronounced. Good ethical practice and professional behaviour are expected in all forms of business activities. With this in mind, we could pose the question: "What are the key influences on the professionals to perform their work in accordance with ethical standards?" There is no simple answer to this question. Norms of ethical or socially responsible behaviour are a part of an individual and included in the organization; his attitudes, norms and beliefs, his own ethical standards, ethical decision-making framework and moral development greatly affects ethical behaviour (Aleksić, 2007, p. 423). The field of business and professional ethics are intertwined to clarify ethically acceptable behaviour in the workplace. The focus of this paper is a specific area of engineering ethics and ethical dilemmas that engineers face in their work.

In the theoretical part of this paper we will attempt to clarify the main differences and similarities between business and engineering ethics, determine the areas which represent potential source of conflict and explore specific ethical dilemmas that occur with individuals who are engaged in the engineering profession in the business surroundings.

The results of the research of ethics in engineering practice of Croatian engineers to determine the key ethical challenges they face and which affect business decision making are presented in the empirical part.

2. THEORETICAL OVERVIEW

Ethics is the philosophical discipline that examines the meaning and objectives of moral aspirations, fundamental criteria for moral evaluation, as well as the general foundation and the source of morality. Ethics can be defined as a system of principles, values and standards of conduct, viewed from the perspective of some basic values and criteria of a correct or incorrect, right or wrong. It provides the basis for the value judgment validity and desirability of certain forms of behaviour. It is the branch of philosophy that attempts to logically and systematically develop a series of principles that define ethical behaviour (Bahtijarević-Šiber, Sikavica, Pološki Vokić, 2007, p. 533). Scandals which more often appear in many economies affect the public questioning of desirable business principles. The public seeks responsibility for ethically questionable practices in the business context, especially with modern

information and communication technologies enabling a very rapid flow of information and more difficult cover-up of unethical practices.

Until relatively recently, it was thought that business and ethics should not be mixed (Velasquez, 1998, p. 35-38). Indeed, the more term „business ethics“ has been called as an *oxymoron* (Vee, Skatmore, 2003, p. 2, cited Ferguson, 1994, p. 1). However, it eventually became clear that the general concepts of ethics are necessarily applicable in business. Managing a business is not a function only of satisfying individual goals, it is a part of the social processes which should serve the interests of the entire environment (Vee, Skatmore, 2003, p. 3).

Business ethics can be defined as a system of core values and rules of individual, organizational and social behaviour associated with the business and achieving its objectives and with assessing the consequences of business conduct and decision-making for other participants in the business environment. Managerial ethics is often identified with business ethics because it is assumed that the manager significantly affects the application of ethical principles in the business context in which it operates. *Managerial ethics* is defined as a system of core values, rules and criteria applied by managers in decision-making, in evaluating the correctness of procedures and decisions, and in assessing the wider effects of those decisions and their impact on the other participants in the business and social environment (Bahtijarević-Šiber, Sikavica, Pološki Vokić, 2007, p. 534).

The scope of business and managerial ethics is closely linked to the question of professional ethics. But there is no general agreement about what actually makes professional ethics and how it is separated from business ethics. Sikavica et al. (Bahtijarević-Šiber, Sikavica, Pološki Vokić, 2007, p. 534) define professional ethics as a set of standards that define the members of a profession, and they pertain to the way they should behave in performing activities associated with their job. Generally known professions related with the use of ethical principles are, for example, medicine, law, journalism, finance, engineering. The area of this study is the relationship between business ethics and engineering ethics.

Engineering has been regarded profession in the West since the nineteenth century. The major engineering societies issue codes of professional ethics and certify many engineers. At a time when engineers enter the business, ethical issues become even more challenging (Hooker, 2000, p. 1). Engineering ethics is defined as: (1) the study of moral issues and decisions confronting individuals and organizations involved in engineering and (2) the study of related questions about moral conduct, character, ideals and relationships of peoples and organizations involved in technological development (Martin, Schinzinger, 2005). According to Božićević (2012, p. 83) the engineering's ethics is a common notion for values respected by engineers who face moral problems in solving

various technical tasks. These values are connected to cultural norms, life experience and practice, thus creating an awareness of responsible acting.

Many view engineers as professionals and business persons as nonprofessionals. The professional duties of business managers are less clear, and there is no certification. It is debated whether management is a profession at all. To date, there is no complete agreement about the definition of the profession. According to Hooker (2000, p. 2) professionals can be defined by three characteristics: they are experts, they use their expertise responsibly, and they mark themselves as professionals. Professional obligations are usually summed up in a professional code of ethics. The task of code of ethics is not to derive obligations, but *to spell out what the public expects from the profession*. There is no standard code of ethics for business, although at the websites of some corporations their ethical codes can be found. Frederick Taylor tried to establish management profession in the United States a century ago, using the example of engineering, his own profession. He argued that business management has its own domain of expertise and encouraged the development of a science to support it. In early research, the duty of business managers was quite narrowly determined as maximizing the wealth of the owner, by any legal means. Kenneth Goodpaster (1991) suggested that managers and directors are beholden only to the owners, but with a key proviso: they must assume responsibility for both the financial interests and the business-related ethical obligations of the owners. The business-related obligations of the owners become professional obligations of their fiduciaries (Hooker, 2000, p. 3).

Bowie (1985) contends there are no important differences between problems in business ethics and problems in engineering ethics. *Professionalism* best refers to a set of attitudes rather than to a specific job. Attitudes that differ the professional from the nonprofessional are: (1) the professional does not see the job as simply a means for making money, (2) the professional emphasizes the moral obligations that attend the job, (3) the professional emphasizes competence, (4) the nonprofessional is more concerned about himself than about competence, (5) the unprofessional job is the incompetent one, (6) the professional is more concerned about the quality of his/her work than about personal advancement, (7) the professional sees his/her work job as providing a useful service to society, (8) the professional is always seeking ways to do his/her job better, (9) the professional seeks to develop a set of professional virtues (Bowie, 1985, p. 44).

The study conducted by Al-Kahtani (2007) yielded some interesting research results. Focus of his study was the difference in perceptual ethical values of students majoring in business and engineering in three selected Saudi Universities. The results confirmed significant difference in perceptual ethical values between major business students and engineering students as well as within each major based on students' level of education. Level of education of business and engineering students showed a significant difference in their perceptual ethical values. Contrary to the expectations business students scored a higher level of perceptual ethical values than engineering students on all

statements. These results can be explained by the usual inclusion of business ethics in the regular curriculum of this field of study. This suggests the importance and potential of the education system to promote ethical values in decision-making in the workplace. Accordingly, O'Clock and Okleshen (1993) assert that engineering major students need to take courses in business ethics to prepare themselves for real world after they graduate and join the workforce. Likewise, Kienzler and David (2003) think that honest and ethical business practices must be integrated into the entire curriculum because engineering major students as well are faced with the same business environment challenges. Therefore, they need to apply ethics in their work (O'Clock, Okleshen, 1993).

Regardless of whether it is believed that the business, managerial and engineering ethics are different areas of applied ethics or one is inclined to the attitude which ethical principles considers not a part of the specifics of someone's job, but his personal views, it is clear that the ethical challenges in today's business context are notably highlighted. Engineering has always been related to business, but now more than ever. Engineers are increasingly involved in start-up companies in which they make business decisions as well as engineering decisions. Often, at the same time they are entrepreneurs, managers and engineers. Even in large firms engineers are often directly involved in the business processes and decisions. The project management which is often associated with the engineering profession in fact brings together management skills and engineering competence with the purpose of producing successful project results. It is evident that engineers must now think about ethical issues that were once the provenience of business managers (Hooker, 2000, p. 1).

In continuance some of the most recognizable ethical issues in engineering work will be elaborated.

Engineering ethical dilemmas

Engineers face many ethical dilemmas in a business context. An ethical dilemma occurs when all alternative choices or behaviours are considered undesirable because of possible negative effects, therefore it is difficult to distinguish between right and wrong or good and bad (Daft, 2006, p. 157). An issue of great concern to engineers is how to balance quality and safety against cost. Engineers want to design high-quality product, but business managers want to keep the cost down. The business issue centers around what firms *must* do to compete in marketplace. The legal and ethical issues concern what they *should* do (Hooker, 2000, p. 3). Further, different views and situations in the context of the ethical dilemmas resulting from the relation between the quality and safety will be described.

The Business View – The task of business managers is to make sure the firm survives and prospers in a competitive environment. The business environment has become steadily more competitive. To be competitive, a firm must generate new products as quickly and responsively as possible. Some of

these factors, such as small lot sizes and inventory levels, enhance quality and safety. But others, such as international competition, rapid product development and general cost cutting, can force compromise. Ideally, customers know at the time of purchase how much quality and safety they are buying. They can decide for themselves how much they want to pay for them and the market works. However, the very characteristic of engineering that calls for professionalism can undermine market mechanisms: the defects may not appear until long after purchase (Hooker, 2000).

The Legal View – Engineers who are asked to cut corners should first understand the company's legal obligations to its customers. According to common law, a product must be fit for the purpose for which it is sold. The firm also has a legal obligation to provide a safe product. The standard of care is defined by generally accepted norms in the engineering profession. Professional associations often publish manuals that specify constraints, such as minimum tolerances, in order to ensure safety (Hooker, 2000, p. 4). The legal framework will not always solve the engineering dilemma. It may leave unclear what the engineer should do when the firm acts illegally or when it acts legally but concurrently it creates an ethical dilemma for an engineer.

Public expectations – The public has different expectations in terms of safety products and services. What is somewhere acceptable or expected, elsewhere will not meet the requirements of users. For example, The U.S. public expects a product to be absolutely safe in normal use. The European public expects the product to meet specifications. This expectation varies across cultures (Hooker, 2000, p. 5). The question is whether it is ethical to balance between safety and costs due to the expectations of the public?

In addition to safety issues engineers are often faced with ethical dilemmas in the field of *intellectual property rights*. Engineers should be very familiar with this domain to be able to assess the decisions that they will have to make. Often they do not have enough knowledge about it and sometimes perhaps they do not really recognize their actions as unethical. On the other hand, knowledge of the subject can help them to recognize and ensure the rights of intellectual property of their solutions which meet the criteria for protection.

International Business Ethics is a field of applied ethics, which in practice often has an impact on the engineering decisions. In global economy, engineering projects are often international. They bring together people from different traditions who have different values and do business in different ways. Considering that ethical issues are directly related to some core values, but also personal moral assessment, it is clear that different traditions resulted in somewhat different fundamental values and moral issues. People who work globally should be aware of these differences in order to be able to adapt to the specifics of other traditions and their value beliefs.

There are many different areas where potential engineering and ethical challenges can be found. Some of the practical situations in which an engineer

might find himself are: sharing or selling confidential information, cover-up of errors, avoiding presenting unwanted results, performing a less than complete analysis, failing to properly test, failing to properly inspect, charging for work not done, charging for unnecessary work, not treating others fairly etc. Their personal way of conduct will be influenced by the ethical principles which derive from the business environment of their operations, but it is also largely influenced by personal moral attitudes and ethical principles. There is no universal solution for situations considered unethical by engineers. Whistle-Blowing described as the act of an employee of informing the public or higher management of unethical or illegal behaviour by an employer or supervisor (Johnson 1991., p. 32). If an engineer decides that current practice is unethical, there are at least three basic responses: „blow the whistle“, either internally or publicly, resign, or keep quiet and do what the company wants. But, it will ultimately be his personal decision.

Following, the results of the empirical research conducted among engineers in Croatia will be presented.

3. RESEARCH METHODOLOGY AND RESULTS

The aim of this research is to explore the ethics in engineering practice of Croatian engineers.¹ This survey was intended to engineers working in engineering companies or in companies that employ a significant number of engineers. The purpose of the study is to gauge level of awareness of the ethical issues relevant to engineers and the level of support available for engineering professionals in industry when they are faced with ethical issues.

One part of the survey was performed among part-time students at specialist professional graduate studies of transport and occupational safety at the Polytechnic of Rijeka, who are employed as engineers. The second part of the research was carried out using an e-mail as the communication channel on randomly selected companies in the County of Primorje and Gorski Kotar. Due to the sensitivity of research, respondents were ensured absolute anonymity, there was no question marked as mandatory, very little personal information was required; name of the firm was not required. The final research sample consisted of 63 engineers from various fields of engineering, of which 13.4% were employed in micro enterprises (up to 9 employees), 32.7% in small enterprises (10-50 employees), 21.1% in medium-sized enterprises (51-250 employees) and 32.7% in large enterprises.

Research results

At the first question *As an engineer, do you feel that ethical issues arise in the course of work?* 54 (85.7%) of respondents answered positively, 4 (6.3%) answered negatively, and 5 (7.9%) of respondents did not know whether they encountered with ethical issues in the course of their work.

¹ The questionnaire is adapted from the study carried out by Royal Academy of Engineering and UK Engineering Council's Statement of Ethical Principles, <http://www.raeng.org.uk/policy/ethics/principles.htm>. (10.03.2013.)

The following table shows the responses to the question which respondents marked as the ethical issues relevant to their work.

Table 1

Selected ethical issues relevant to work of respondents (engineers)

Ethical issues	Frequency response	%
1. Avoiding bribery, corruption and facilitation payments	32	50,1
2. Preventing discrimination, harassment or bullying	29	46
3. Health and safety of workers and the public	38	60,3
4. Dealing with conflicts of interests	25	39,7
5. Fair and honest quotes and costing	38	60,3
6. Preventing or controlling pollution	16	25,4
7. Security of information	33	52,4
8. Appropriate handling of intellectual property	14	22,2
9. Addressing human rights issues	23	36,5
10. Ensuring ethical standards through the supply chain	8	12,7
11. Cross-cultural issues	13	20,6
12. Working within competencies	8	12,7

Source: research

According to the results listed in the table above the highest number of engineers marked *health and safety of workers and the public* (60.3%), *fair and honest quotes and costing* (60.3%), *security of information* (52.4%) and *avoiding bribery, corruption and facilitation payments* (50.1%) as most present ethical issues in performing their work. *Ensuring ethical standards through the supply chain and working within competencies* the smallest number of engineers considers relevant from the ethical aspect in performing their work (12.7%).

In assessing the highest importance of the above ethical issues respondents rated most important ethical issue *health and safety of workers and the public* (27 or 42.8%), in second place they put *fair and honest quotes and costing* (12 or 19%) and third place was given to *avoiding takes bribery, corruption and facilitation payments* (9 or 14%).

The following table contains answers to the question whether circumstances within their company make it easy for them to work in certain ways which are considered ethical.

Table 2

Do circumstances within your company make it easy for you to work in the following ways?

	Always %	Usually %	Some of the time %	Often not %
Work within competencies	20,0	41,7	18,3	20,0
Give realistic cost estimates	17,2	27,6	37,9	17,2
Minimise health and safety risk	25,0	35,0	30,0	10,0
Communicate information of public interest	17,5	26,3	35,1	21,1
Avoid bribery	67,2	19,7	4,9	8,2
Keep within planning and building regulations	25,0	65,0	6,7	3,3
Keep within environmental regulations	20,0	41,7	18,3	20,0

Source: research

Results in the table show that a large number of respondents said that circumstances within their company allowed them to *always* (67.2%) and *usually* (19.7%) *avoid bribery* while 8.2% of them assessed that *often* are not able to *avoid bribery*. Closely to 20% of respondents hold that their company *often* does not allow them to *work within competencies*, *communicate information of public interest* and *keep within environmental regulations*. Companies whose employees are respondents *sometimes* prevent them to *give realistic cost estimates*, marked by 37.9% of respondents. Also, *sometimes* they make it impossible to *communicate information of public interest* rated by 35.1% of respondents. Respondents predominantly evaluated that *always* or *usually* in their companies operate in circumstances described as *keep within planning and building regulations* and *keep within environmental regulations*.

The following table presents the evaluation of the pressures that make it difficult for respondents to act ethically in the workplace.

Table 3

In your experience, do any of the following pressures make it difficult to behave ethically?

	Always %	Usually %	Some of the time %	Often not %	Never %
Cutting costs	10,0	31,7	40,0	5,0	13,3
Cutting timescales	5,1	32,2	42,4	11,9	8,5
Winning contracts	11,9	18,6	42,4	11,9	15,3
Meeting client's demands	13,3	21,7	41,7	13,3	10,0

Source: research

In assessing the pressures to which they are exposed when carrying out their work 31.7% of respondents marked that they are *usually* exposed to *cutting costs*, while 40% responded *some of the time*. Similarly they assessed *cutting timescales*: 32.2% are *usually* exposed to that pressure, and 42.4% *some of the time*. Concerning *winning contracts* respondents expressed somewhat smaller pressure so 18.6% of respondents selected that they *usually* feel the pressure and 42.4 of them said that *some of the time* experience pressure in obtaining contracts. While *meeting client's demands*, 41.7% of respondents stated that *some of the time* are under pressure in the workplace. It is evident that they feel more pressure in the ethical context in the domain of cost reduction and shortening deadlines than in satisfying customer requests.

Other pressures to which they are exposed and make it difficult for them to operate in an ethical manner indicated 18 (28.5%) of respondents. They specified: employee relations, poor working atmosphere, prohibition of commenting current issues concerning work tasks, lack of time, employees' salaries, loopholes in the law, constant sanctioning, rarely rewarding, forcing the working methods that are not in accordance with the regulations, administrative procedures at border crossings, pressure due to deadlines, forcing people, too much stress, wishes of the superiors, performing work without adequate protective clothing and footwear which can threaten safety, compensations for the effort getting smaller while employees are existential threatened, fulfilment of norms, too low salaries, orders of the boss who is "always" right, withholding information about actual state to the client, the financial pressure in every aspect of the business, too much work etc.

To the question *have you ever been in a situation in the course of your work where you felt you were faced with an ethical dilemma?* 48 (76.1%) persons responded positively, 7 (11.1%) negatively and 8 (12.7%) does not know.

Those who responded positively to the previous question had to state whether they feel that their company gives them guidance or support in dealing with the problem. 16 of them (33.3%) reported that they have great support, 16 (33.3%) of them have support, but it is not adequate, 10 (20.8%) have no support, and 6 (12.5%) do not need support or advice when evaluating ethical dilemmas.

In appraising engineering relative to other professions concerning the attitude towards ethical issues 23 (36.5%) of respondents assessed that the engineering is at least equal, if not a leader in a way they deal with ethical issues, 22 (24.9%) rated medicine as a leading profession in the area of ethical conduct, followed by finance and accounting, law and journalism. At the back with support from only 5 (7.9%) of the respondents was business as an ethical profession.

When asked about the need to support professional organizations 52 (82.5%) of respondents indicated that engineering professional organizations could do more to promote engineering ethics and support engineers; 5 (7.9%) of

respondents believe that sufficiently is being done, and 3 (4.7%) think that it is not such an important issue.

Based on the study it can be concluded that the ethical issues appear in everyday work of Croatian engineers. A large number of different ethical issues delineate the areas encountered in their work. When assessing the circumstances in which they operate in the workplace it is encouraging that they highly evaluated the conditions in which they can always or usually “avoid bribe”; relatively highly was rated “minimizing health and safety risks and acting in accordance with the rules and regulations”. They evaluated less favourably “realistic cost estimates and communicating information of public interest”. In the domain of ethical pressures large number of respondents (over 40%) stated that sometimes they feel pressure in “cutting costs”, “cutting timescales”, “winning contracts” and “meeting client's demands”. It is interesting that the respondents who declared that they were faced with an ethical dilemma, relatively highly rated support of companies in such situations (66% of them), with half of them stated that this support is inadequate. In assessing various professions engineering and medicine are rated as ethical profession, while business received the least support of respondents. The majority of respondents (82.5%) claimed that professional organizations could do more in promoting engineering ethics and supporting engineers. On the one hand it indicates the awareness of the respondents of the importance of use of ethical principles in engineering decisions, and on the other hand it points out the commitment of respondents to specific engineering ethics.

4. CONCLUSION

The basic goal of applied ethics is to establish the desirable principles of conduct in specific areas to which it relates. Business ethics deals with the desirable principles of business while professional ethics is engaged in determining specific values that characterize a particular profession. It is difficult to make a clear distinction between the ethical principles that apply in general to business decision-making as opposed to the principles that describe the professional decision-making. The focus of this paper was specificity of ethical problems faced by engineers in the business context. The theoretical examination of this area indicates the inconsistency in attitudes towards similarities and differences between business and engineering ethics. Analysis of the most common ethical dilemmas in engineering points to some specifics eg. ratio between safety and costs, or quality of engineering solutions. Identified engineering ethical dilemmas in the domain of intellectual property, international business ethics or specific ethically questionable situations in practice such as sharing or selling confidential information, cover-up of errors, avoiding presenting unwanted results, performing a less than complete analysis etc., raise the question would those same ethical dilemmas appear in any profession, or in performing any kind work?

There is general agreement around the growing demand for good ethical practice and professional behaviour in all forms of business activities, including the engineering profession. In order to have a positive impact on these processes, it is necessary to explore ethics in the specific work practices and then through the available mechanisms raise awareness of the importance of the application of ethical principles in work related decisions.

Empirical part of this paper contains the analysis of the study of ethics in engineering practice of Croatian engineers. Research results indicate that Croatian engineers show a high level of awareness of the presence of ethical challenges in their daily work. They stated that they are in their work exposed to a variety of ethical issues with the greatest emphasis given to the ethical issue *health and safety of workers and the public* considering it to be the most often encountered ethical issue. This ethical issue can be classified in a specific area of engineering ethics. They also noted a number of personal examples of ethically questionable situation. In assessing the pressures that could affect the ethics of their actions most of them expressed that they feel different intensity of pressure in cutting costs, cutting timescales, winning contracts and meeting client's demands. Most of them stated that they have support of their organizations in situations when they are faced with an ethical dilemma, although the half suggests that this support is not adequate. Most respondents expect greater help from professional organizations, which means that they should be more involved in raising ethical awareness in the engineering profession. It can be concluded that Croatian engineers are exposed to a variety of ethical challenges in performing the engineering work and that greater effort should be made in further raising ethical awareness on individual, organizational and social level. Organizations are required to promote corporate social responsibility that is based on the fundamental ethical principles (Aleksić, 2007, p. 428), but apart from them professional organizations and society at large also have a responsibility to promote ethical values and thus affect our individual actions.

Research findings are limited by the small survey sample (63 respondents) and a relatively small number of questions in the questionnaire. In the future a possible research stream could be an analysis of professional and engineering ethics in detail. Some of the features to be studied in the future are the attitudes of engineers with regard to: the desirable characteristics of engineers in terms of work ethic, moral standards, technical competence, relationships with people (...), responsibilities of engineers in terms of safety and social responsibility; criteria determining professional engineers in terms of personal qualities, external recognition and tangible standards and detailed analysis of the key sources of ethical problems in the workplace of engineers.

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BUSINESS ETHICS - CHALLENGE FOR MANAGEMENT AND EDUCATION

JEL classification: A230

Abstract

In today's globalization process and economic crisis, the realisation of ethical principles is of utmost importance, since ethics may appear as the crucial factor in terms of comparative advantages. Paper will show changes in long-term period by comparing results from researches conducted in 1996, 2007 and 2015. Survey is conducted among students of Faculty of Business and Economics at University at Zagreb, as future active participants in Croatian economy. Research results could indicate changes in business behaviour ethics with respect to possible business situation under consideration among students. We must not neglect ethical principles in specific areas where it would be desirable even to exceed the existing formal standards (like, for instance, in the area of environmental protection), thinking of life conditions for future generations. On long term basis, results could influence treatment of ethical issues through the process of management education.

Key words: business ethics, management, education

1. INTRODUCTION

Purpose of studying the ethics can be to indicate certain patterns of behaviour that can either be characterised as socially acceptable, ethical, or as socially unacceptable, unethical. Realizing “who”, “when” and “how” estimates what is ethical and what is not is the basic weft of studying the ethics and therefore it can be stated that the main goal of ethics is to “define the interrelationship between moral and other fields of social life...” (Pulišelić, 1980, 379.). So, one of the reasons for studying attitudes on ethical behaviour is the attempt to grasp ethical standards and prevailing ethical principles. This may

reveal as follow: a) what is considered as ethical behaviour and b) the possible deviations, deflections and trials towards unethical behaviour before they occur in real life.

More than third of decision makers at the level of corporate management constantly encounter occasions to make ethical compromises in order to achieve company's or their own gains (Maltby, 1988). Business ethics is foremost matter of trust and relations between individuals and/or companies. That leads us to the necessity of observing ethical standards in different cultures, social structures, different countries dependant on different levels of growth and therefore economic development. Especially it must be noted that "in every society (social community, author's remark) ethical standards are connected with (precisely, a.r.) defined ideals or models" (Supek, 1972, 167.) of behaviour which may be of importance for all who want to have active role in globalized world.

2. CONCEPTUAL FRAMEWORK

Business ethics was the subject of studying and theoretical and empirical researches for a long time. Theoretical model of making ethical decision in business usually emphasizes personal traits or influence of a company in defining ethical decision and ethical behaviour in doing business (Ferrel & Gresham, 1985.). Simultaneously, empirical researches uncover positive linkage between making ethical decision and personal traits (i.e. gender) but as well working experience (Posner, 1986.), personal ethical choices and attitudes (Forsyth & Pope, 1984.), management style (Fritscher & Becker, 1984.), working environment/atmosphere (Gartner, 1991) ... but also ethical training (Arlow & Urlich, 1985.; Penn & Collier, 1985.).

Ethical behaviour is taught in the family, in contacts with friends, associates and acquaintances, in church, in sport clubs, at school... Each of these groups has their own, usually unwritten, rules of behaviour, value system and prevailing attitudes. It might be said: its "standards". The more time an individual spends in certain value system in regards with ethical behaviour in certain group the greater the likelihood that this value system he/she will take on this value system and apply it in his/hers future contacts only with that but other groups, too. Thus, it can be stated that always one group imposes itself as dominant and that dominance is a result of time spent socializing with that group. In same way a parallel can be drawn with ethical business-making – the image of employees in respect to ethical traits of their co-workers, colleagues and supervisors often has more predictive character of their behaviour than their own moral and ethical value system (Ferrell & Gresham, 1985.)

Not all people have the inclination towards ethical behaviour – so-called: social "sociopaths" are those that in unethical way use the relations and organization (company, corporate subjects) for their own interest and of which the highlight is creation of own personal "social" network that results in social

role and power at the expense of everybody else. This is sometimes hard to recognize as unethical behaviour because that kind of behaviour is hidden primarily by socially beneficial goals or is presented as a consequence of one's own abilities and ambitions but since it occurs via unethical behaviour it is subject to disapproval. Because of that but also in general educational institutions and companies need to teach people ethics and guide and motivate them to behave ethically; because - although individuals might have good intentions - solely good intentions (to ethically behave) are not enough (Trevino & Nelson, 2010, 19.). Of course, intentions can be a great predictor but in the end behaviour is thing that matters and that differs from intentions. Needed knowledge and skills for making ethical decision in certain activities and complex corporate subjects can be a consequence of many personal ethical dilemmas and there needs to be a possibility that knowledge and skills be acquired during formal educational process but also continuously enhanced during whole working age.

3. PURPOSE OF RESEARCH

The intention of research is to facilitate the knowledge of ethical considerations and that primarily through monitoring the basic postulates and predicting the future framework of business ethics in Croatia. The main goal is to uncover and keep track of differences in ethical considerations and possible future ethical behaviour in business among diverse student groups as observed by some certain characteristics and their thoughts on the need for and way of studying the ethics. Some researchers have shown that female students have greater ethical standards in comparison with male students (Arlow, 1991.; Peterson et al., 1991.; Poorsoltan et al., 1991.; Lane, 1995.; Keith et al., 2009.). At the same time other researches have shown there are no difference in respect to gender (Davis & Welton, 1991.; Stanga & Tupen 1991.). Furthermore, it is interesting to see if there are any differences in respect to whether students consider themselves leaders or not.

In more detail, research was designed as to find out the attitudes of students in order to: a) predict their future behaviour in diverse (possible) common real-life business situations that can cause ethical dilemmas and also to predict possible future unethical behaviour in business-making; b) unravel the linkage between intended behaviour and traits of students (with special stress on gender of respondents and their own self-perception as leaders) and c) uncover the students' attitudes in regards to ethics and importance of studying the ethics. This is all observed during time-frame of nineteen years on three occasions (1996, 2007, 2015.) with comparable researches (same situations, same instruments, comparable sample of respondents, and comparable ways of contacting the examinees...). The results of research made in 1996 and theoretical part on the matter were published (Vranešević et al., 1998; Vranešević & Frajlić, 2003) and those students nowadays have over 40 years and already some 15 years of working experience.

4. METHODOLOGY

Instrument of research was high-structured questionnaire.

Questionnaire was developed on the basis of studying literature where presented are result of research (Ferrell & Skinner, 1988, Lane, 1995.; Pizzolato & Bevill, 1996.) as well as on the basis of own judgment of frequency and importance of diverse business dilemmas. In the questionnaire, 20 business situations are presented and related decisions to be made on which respondents needed to express how much they agree or disagree on the scale from 1 to 5 where 1 means "I totally agree" and 5 means "I totally disagree." The idea was try to present real and not-too-complex business situations. Almost all claims represent unethical business decisions and/or behaviour (except for claims for situation 1 and 2 that were after the gathering of the answers and before analysis "transferred" into unethical decision/situations). Decisions/situations are shown in tables 2, 3 and 4. Differing opinions on the relevance of the situations are accepted and can only serve as cause for further research. After the student expressed the level of their (dis)agreement on presented situations, behaviour or decisions they were also asked to express their agreement on questions related to ethics in educational systems and to respond to questions on socio-demographic characteristics and on the questions related to their preferences for team work, do they consider themselves leaders and so on.

Sample and sampling. Sample in all three researches was purposely selected, apposite sample of students from Faculty of Business and Economics, University of Zagreb, Croatia (Ekonomski fakultet Sveučilišta u Zagrebu, Hrvatska) that were on lectures or seminar during the surveying by which it means they were given questionnaires in paper form at the beginning of the class, that is lecture which they then filled in. In the last research in 2015 one part of sample was contacted via on-line questionnaire (this represents in total 186 respondents; 38% of total sample). Through on-line sampling contacted were 677 students and response rate was 27.5%.

There wasn't any overlap between students that were contacted with on-line survey and students that filled questionnaires in paper form. The survey was anonymous; respondents were chosen in respect to years of study (undergraduate study of business at Faculty of Business and Economics, University of Zagreb lasts 4 years, master is taught at 5th year of study). First survey (research) was in November 1996, the sample consisted of 397 students. Second was in April 2007 and the sample consisted of 425 students. Finally, third survey (research) was done in March 2015 and the sample consist 485 students. Each of these three years (1996, 2007 and 2015) was in certain way significant: first post-war year, year in longer period of intensive economic growth and 7th year in period of economic crisis.

Analysis was done on the level of each research in respect to gender of students (respondents) and in respect if they consider themselves as leaders or not. Given preliminary steps were made before the analysis – answers to questions whether the examinees consider themselves a) leaders, b) followers, or c) something in-between were classified simply into two categories: leaders or not-leaders. Furthermore, almost all of the situations (18 out of 20) represented unethical behaviour and two that represented ethical behaviour were replaced with unethical situations – thus situations 1 and 2 were made, in this way, into situations where examinee “would not” report the boss... and “would not” offer clients... General questions related to ethics and importance of studying ethics during educational process were analysed to find out the frequency of answers, shown with certain indicators (%) so it would be easier to notice eventual differences in responses over time.

Characteristics of the sample. Sample in each year of research was observed as to its basic characteristics through which observed were other results and that are gender of respondents and their –self-perception whether they are leaders or not. Basic characteristics of the sample are shown in table 1.

Table 1

Characteristics of the sample

Year	Total	Male	Female	Leaders	Not-leaders
1996	397 (100%)	112 (28%)	285 (72%)	91 (23%)	308 (77%)
2007	425 (100%)	107 (25%)	318 (75%)	147 (35%)	278 (65%)
2015	486 (100%)	145 (30%)	341 (70%)	196 (40%)	290 (60%)

Source: author

Based on gender of examinees samples in certain researches are similar and more present are female students than male students. There is pronounced tendency towards number of students who proclaim, see themselves as leaders and that might indicate changes in educational system and/or society in general.

5. RESULTS

Average grades for all three researches conducted at the level of collective samples are shown in table 2.

Table 2

Average grades of agreement with business situations/claims

<i>I</i>	<i>1996</i>	<i>2007</i>	<i>2015</i>
01. wouldn't report the boss that cheats on travel expenses or expenses of representation	3,40	3,01	3,28
02. wouldn't offer my clients entirely true view of business that I do for them, on their demand	4,15	4,03	4,13
03. would show female and male models in underwear for promoting motorcycles	3,19	2,97	3,12
04. would show only some data because I know the total end result wouldn't please my client	3,41	3,41	3,37
05. wouldn't consider ecological problems in order to achieve gain for my company	4,34	4,09	3,85
06. would try to employ handsome looking person for my associate	3,16	3,33	3,42
07. would launch „false“ research in order to gather data about my clients	3,96	4,04	4,05
08. wouldn't tell the complete truth to my clients about certain things in order to protect my company	2,51	3,02	3,10
09. would somewhat alter facts, data in intent to achieve better personal business goals	3,46	3,43	3,49
10. would gather prices of competitors by way of pretending I am a customer	2,16	2,42	2,40
11. would spend more time than needed to get the job done	3,15	2,64	2,59
12. would present achievements of others as mine own	4,64	4,45	4,36
13. wouldn't tell the whole truth to my clients about certain things in order to protect my interest	3,17	3,40	3,47
14. would sell the third party results of market research	4,27	4,09	4,14
15. would use services of the company for my own purposes	3,57	3,27	3,47
16. would made business deal with a company that is well known for not caring about environment issues	4,12	3,79	3,55
17. would secretly take company's equipment/material and small inventory	4,24	3,64	3,77
18. would continue with a project although I've made a serious mistake that however no one can notice	3,74	3,44	3,50
19. would make an alteration/compromise in respect to reliability of study (data) in order to finish the project	3,29	3,11	3,14
20. would pursue personal business during the company's working hours	3,57	3,11	3,31

Note: shown are average grades on scale 1 do 5 where 1 represents total agreement and 5 total disagreement.

Source: author

On the collective level there are no great differences except that it can be noted that examinees were somewhat more inclined toward unethical behaviour in 2007 and toward ethical behaviour in 1996 and this can be observed by looking

at the sum of all average grades across years: 71.5 in 1996; 68.7 in 2007; 69.5 in 2015.

In the tables 3 and 4 shown are average grades in certain researches according to year of their launch and in respect to basic characteristics through which observed are average grades: by gender, by self-perception of students (do they see themselves as leaders or not) and through observation if there are any statistically significant differences in average grades that represent answers on the level of collective on scale 1 to 5.

Table 3

Average grades of agreement with business situations/claims according to gender of respondents

<i>I</i>	1996		2007		2015	
	Male	Female	Male	Female	Male	Female
01. wouldn't report the boss that cheats on travel expenses or expenses of representation	3,27	3,45	2,90	3,05	3,30	3,27
02. wouldn't offer my clients entirely true view of business that I do for them, on their demand	3,98	4,22	3,78	4,12	4,02	4,18
03. would show female and male models in underwear for promoting motorcycles	2,10	3,62	2,15	3,24	2,50	3,39
04. would show only some data because I know the total end result wouldn't please my client	3,31	3,45	3,22	3,47	3,13	3,47
05. wouldn't consider ecological problems in order to achieve gain for my company	3,97	4,49	3,81	4,19	3,44	4,02
06. would try to employ handsome looking person for my associate	2,59	3,39	2,74	3,53	2,96	3,62
07. would launch „false“ research in order to gather data about my clients	3,73	4,05	3,59	4,19	3,86	4,13
08. wouldn't tell the complete truth to my clients about certain things in order to protect my company	2,48	2,63	2,78	3,11	2,70	3,27
09. would somewhat alter facts, data in intent to achieve better personal business goals	3,04	3,63	2,98	3,58	3,13	3,65
10. would gather prices of competitors by way of pretending I am a customer	1,80	2,30	2,03	2,56	2,15	2,50
11. would spend more time than needed to get the job done	3,11	3,16	2,55	2,67	2,51	2,62
12. would present achievements of others as mine own	4,45	4,72	4,15	4,55	4,30	4,38
13. wouldn't tell the whole truth to my clients about certain things in order to protect my interest	2,90	3,28	3,11	3,50	3,19	3,59
14. would sell the third party results of market research	3,93	4,41	3,69	4,22	3,93	4,22

15. would use services of the company for my own purposes	3,30	3,68	2,83	3,42	3,21	3,58
16. would made business deal with a company that is well known for not caring about environment issues	3,65	4,30	3,40	3,92	3,21	3,70
17. would secretly take company's equipment/material and small inventory	4,10	4,29	3,41	3,72	3,76	3,78
18. would continue with a project although I've made a serious mistake that however no one can notice	3,45	3,85	3,08	3,57	3,17	3,63
19. would make an alteration/compromise in respect to reliability of study (data) in order to finish the project	3,12	3,35	2,93	3,18	2,99	3,20
20. would pursue personal business during the company's working hours	3,35	3,65	2,73	3,23	3,01	3,44

Note: shown are average grades of answers corresponding to scale 1 to 5 where 1 represents full agreement and 5 full disagreement; shaded – statistically significant differences among average grades as obtained by taking the t-test on independent samples with $p < 0.05$

Source: author

In general, female students show greater inclination toward ethical behaviour than their male colleagues as observed through average grades of their answers. Statistically significant differences of average grades are evident in 14 situations in 1996, 18 situations in 2007 and 15 situations in 2015

Table 4

Average grades of agreement with business situations/claims according to self-perception as a leader of respondents

I	1996		2007		2015	
	Leaders	Not-leaders	Leaders	Not-leaders	Leaders	Not-leaders
01. wouldn't report the boss that cheats on travel expenses or expenses of representation	3,33	3,42	3,07	2,99	3,25	3,29
02. wouldn't offer my clients entirely true view of business that I do for them, on their demand	4,14	4,15	4,02	4,04	4,11	4,15
03. would show female and male models in underwear for promoting motorcycles	2,91	3,30	2,76	3,08	2,86	3,30
04. would show only some data because I know the total end result wouldn't please my client	3,38	3,42	3,38	3,42	3,23	3,47

05. wouldn't consider ecological problems in order to achieve gain for my company	4,32	4,35	4,03	4,13	3,72	3,94
06. would try to employ handsome looking person for my associate	2,93	3,23	3,20	3,40	3,23	3,55
07. would launch „false“ research in order to gather data about my clients	3,83	4,00	3,97	4,08	3,84	4,19
08. wouldn't tell the complete truth to my clients about certain things in order to protect my company	2,69	2,56	2,96	3,06	2,96	3,19
09. would somewhat alter facts, data in intent to achieve better personal business goals	3,30	3,51	3,29	3,50	3,33	3,60
10. would gather prices of competitors by way of pretending I am a customer	2,04	2,19	2,24	2,52	2,31	2,46
11. would spend more time than needed to get the job done	3,03	3,18	2,45	2,74	2,62	2,57
12. would present achievements of others as mine own	4,58	4,65	4,45	4,45	4,37	4,35
13. wouldn't tell the whole truth to my clients about certain things in order to protect my interest	3,00	3,32	3,41	3,40	3,38	3,53
14. would sell the third party results of market research	4,14	4,31	4,18	4,04	4,19	4,10
15. would use services of the company for my own purposes	3,35	3,64	3,21	3,31	3,37	3,53
16. would made business deal with a company that is well known for not caring about environment issues	3,98	4,15	3,81	3,77	3,52	3,58
17. would secretly take company's equipment/material and small inventory	4,15	4,26	3,61	3,66	3,82	3,74
18. would continue with a project although I've made a serious mistake that however no one can notice	3,61	3,77	3,37	3,49	3,51	3,49
19. would make an alteration/compromise in respect to reliability of study (data) in order to finish the project	3,30	3,29	3,06	3,14	3,13	3,14
20. would pursue personal business during the company's working hours	3,34	3,64	2,97	3,18	3,25	3,36

Note: shown are average grades on the scale 1 to 5 where 1 presents full agreement and 5 full disagreement; shaded – statistically significant differences of average grades as obtained by taking t-test on independent samples with $p < 0.05$

Source: author

Student that perceive themselves as leaders show less inclination towards ethical behaviour than their colleagues that perceive themselves as not-leaders, as observed through average grades of their responses. Statistically significant differences of average grades are evident in 4 situations in 1996 and 2007 and in 5 situations in 2015. In one situation not-leaders show less inclination towards unethical behaviour (in 2007 and 2015 (situation n.14)) and in one situation (n.11) in 2015 but statistical significance of this differences with $p < 0.05$ is not recognized.

On claims “lecturers at undergraduate studies should teach ethics in lectures” and “ethical questions are stressed enough in my undergraduate study” obtained are answers shown in tables 5 and 6.

Table 5

(Dis)agreement with the claim “Lecturers at undergraduate studies should teach ethics in lectures” in all three researches; %

Response	1996	2007	2015
I fully agree	29,7	30,6	29,8
I agree	56,7	55,8	52,9
Don´t have an opinion	10,3	10,8	13,6
I disagree	2,0	2,6	2,5
I fully disagree	1,3	0,2	1,2

Source: author

It is easy to notice that students in majority (86.4% in 1996 and 2007 and 82.7% in 2015) agree or fully agree that lecturers should teach ethics at undergraduate studies in all three researches.

Table 6

(Dis)agreement with the claim “Ethical questions are stressed enough in my undergraduate studies” in all three researches; %

Response	1996	2007	2015
I fully agree	5,0	2,8	1,6
I agree	31,7	20,2	27,0
Don't have an opinion	26,7	28,9	34,6
I disagree	32,2	42,6	34,2
I fully disagree	3,8	5,4	2,7

Source: author

Small number of students agrees with the claim that ethical questions are stressed enough at undergraduate studies. The greatest disagreement was in 2007 and greatest agreement in 1996.

Responses how students in all three researches evaluate a) lessons on business ethics, b) if the undergraduate study prepared them for dealing with ethical dilemmas in practice and c) if their opinion on matter of business ethics changed during their studying are shown in table 7, 8 and 9.

Table 7

Responses on question: “In general, how do you evaluate lessons on business ethics?” %

Response	1996	2007	2015
Excellent	2,7	2,4	1,4
Very good	13,7	13,4	18,7
Neither good nor bad	54,3	57,4	59,1
Somewhat bad	15,2	14,6	12,1
Bad	14,1	12,2	8,6

Source: author

Only small number of students evaluates lessons on business ethics excellent or very good in all three researches wherein majority evaluate them as neither bad nor good.

Table 8

Response on the question “Do you think that lessons on business ethics at undergraduate studies prepared you well for dealing with ethical dilemmas in practice?”, %

Response	1996	2007	2015
Yes, significantly	0,7	3,5	0,8
Adequately enough	13,9	16,0	21,4
Somewhat	54,9	50,4	53,3
Not at all	30,5	30,1	24,5

Source: author

From 15% (1996), 20% (2007) to 22% (2015) students think that lessons taught on the matter of business ethics at undergraduate level has prepared them very well, that is significantly, or that it prepared them adequately enough for dealing with ethical dilemmas in real business world. Fact is that is very small number of student (only 1 out of 5 it can be said), however, some comfort provides slight increase in the number that thinks so.

Table 9

Responses to question “Did your opinion on the matter of business ethics changed since You began studying?”, %

Response	1996	2007	2015
Yes, significantly	10,1	9,6	10,9
Somewhat	52,8	50,1	49,4
Not at all	37,1	40,2	39,7

Source: author

The fact is that from 37% to 40% of examinees in all three researches express their opinion on the matter of business ethics didn't at all changed since the time they start studying which indicates that for majority it changed and that thus lessons on business ethics at undergraduate studies are important.

Responses in which in all three researches students express preferences for: a) team work or independent work, b) getting the job in public or private company are shown in tables 10 and 11.

Table 10

Responses to question “Do you prefer team work or working on your own?”, %

Response	1996	2007	2015
Team work	58,6	53,6	48,1
Independent work	27,5	26,6	25,3
No preference	13,9	19,8	26,5

Source: author

Over time it can be observed the increasing number of students that don't have preferences, independent work is stagnating and number of students who prefer team work is falling.

Table 11

Responses to question “Would you rather work in public or in private company”, %

Response	1996	2007	2015
Private	43,4	45,9	47,5
Public	31,2	29,4	22,4
No preference	25,4	24,7	30,0

Source: author

Over time the number of students that would like to work in private company is increasing (47.5% in 2015) as well as number of students who have no preference (30% in 2015)

6. LIMITATIONS

Limitations of research lie foremost in that it was conducted only at Faculty of Business and Economics, University of Zagreb, Croatia. Moreover, student population of business schools is relatively small in comparison to total working population. Sample is relatively small and sampling in 1996 and 2007. was convenient (convenience sample) and it consisted of available students in classes, and in 2015 the sample was combined of students in classes (62% of total sample) and students reached via on-line *survey* (38% of total sample).

Limitations can also be that the educational system has changed as Croatia adopted Bologna system of education and therefore in 2015. research participated also students at graduate studies. Due to all that the results can be considered as only indicative. In addition, despite that it is generally accepted that results of research conducted on students can project, apply to whole education

and thus also the study of students' attitudes towards business ethics (Peterson et al., 1991.) it still remains unanswered how would students really react in real business situations (Murphy, 2010.).

7. CONCLUSIONS

The results can be seen in respect to application of teaching business ethics at university level connected with business and economic fields. Observed in whole the results do indicate the trend of business ethics and its teaching over longer period of time (as according to prevailing conditions) in process of educating a manager.

Separately, the results of research indicate that:

- proportion of female students is significantly higher than proportion of male students: 72% in 1996, 75% in 2007 and 70% in 2015
- proportion of students who consider themselves as leaders are increasing: 23% in 1996, 35% in 2007 and 40% in 2015
- female students in greater amount show intention and tendency towards ethical behaviour than their male colleagues: 14/20 situation in 1996; 18/20 in 2007 and 15/20 in 2015 (statistically significant characteristics)
- students that consider themselves as not-leaders show more ethical behaviour than their colleagues that consider themselves as leaders: 4/20 situations in 1996 and 2007; 5/20 situations in 2015 (note: it can be assumed that greater number of female students neutralizes this greater number of "leaders" that is their intentions towards unethical behaviour)

Moreover, it is worth noting that according to opinion of students business ethics is not stressed, taught enough at undergraduate level of education (including graduate studies per research done in 2015). More than half of students over all three researches agree that "lecturers should stress more ethics in their lectures".

Over 60% of students stated that their opinion on the matter of business ethics did change (significantly and/or somewhat) from since they start studying which indicates that for majority it changes during study.

Ethics is directed to that right is what society think right is, while moral is dependent on individual and his/hers belief on what is right or wrong. Society governs and defines ethics, and ethics can be observed through time and place, in contrast to personal moral which is not limited neither by time, place nor society. That even more indicates the importance of systematically designed teaching of ethics in business at undergraduate and graduate level of education and even at the level of life-learning process.

Obtained results can serve as indicators and providers of guidelines for teaching of business ethics. In teaching business ethics stress should be on prevailing ethical principles over common (in) formal standards in business since

in that way responsible practices of companies can be achieved and which is connected with sustainable development and the living conditions of future generations.

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CORPORATE SOCIAL RESPONSIBILITY

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ONLINE REPORTING OF CORPORATE SOCIAL RESPONSIBILITY OF THE HOTELS IN BULGARIA: CURRENT SITUATION AND MARKETING IMPLICATIONS

JEL classification: M3

Abstract

Social responsibility of hotel and tourism industries becomes a significant issue during the last decade. Observations within the hospitality sector during the last 10 years confirm that hoteliers have already started to incorporate CSR and the online reporting in their businesses. The international hotel chains with strong brands like Marriott, Hilton, Radisson, Hyatt etc. have special CSR sections on their websites where they report all activities and initiatives related to their policy in this area. But how are the hotels in Bulgaria situated with regard to this important issue? The objectives of the paper are: 1. To conduct a review of the studies about CSR reporting in the hotel sector; 2.To analyse the differences in the online reporting policies with regard to their star category and city- or resort profile; 3.To draw conclusions and suggestions for better use of CSR online reporting as an instrument for Internet marketing and hotel brand strengthening; After literature review a websites' content analysis of the hotels in Bulgaria was conducted based on a check list of 6 indicators for CSR reporting. The random sample of hotels includes 130 properties of various profiles. The analysis of the visualized CSR reporting is conducted on a comparative basic depending on the profile characteristics. The paper contains conclusions about the differences in the online reporting of the hotels in Bulgaria and some marketing implications of better usage of CSR online reporting as a marketing tool.

Key words: CSR, online reporting, marketing implications

INTRODUCTION

Social responsibility of hotel and tourism industries becomes a significant issue during the last decade. In the hotel sector, guests are becoming more conscious with ecology and other environment and community matters. As a consequence, observations within the hospitality sector during the last 10 years confirm that hoteliers have already started to incorporate CSR and the reporting practice including corporate social responsibility online reporting in their businesses. Academic researchers, practitioners and consultants have recently increased research and studies regarding CSR in hotel and tourism industries (Kalisch, 2002; Roner;2006; Kasim, A. 2006, Stoll, 2007; Erdogan & Barisb, 2007; García-Rodríguez & Armas-Cruz, 2007; Henderson, 2007; Lee & Park, 2009). While CSR is a set of business principles that has been adopted globally, implementation of social responsibility politics differs by industry, country and even by organisation where it becomes a specific feature of its organisational behaviour. According to Sharma and Kiran (2013, p.25) organizations interested in implementing social responsibility practices should, therefore, be cognizant of the diversity of skills of their leaders and may need to encourage different and new styles in order to be successful. Concerning the CSR online reporting the international hotel chains with strong brands like Marriott, Hilton, Radisson, Hyatt etc. have special CSR sections on their websites where they report all activities and initiatives related to their socially responsible policy in this area.

But how are the hotels in Bulgaria situated with regard to this important issue? The research objectives of the current study were:

- To conduct a review of the studies about CSR online reporting in the hotel sector and to propose a set of indicators for web site analysis about CSR online reporting;
- To analyse the differences in the online reporting policy with regard to their star category and location profile- city or resort hotel and to identify the most often reported types of activities and actions of the hotels.
- To draw conclusions and suggestions about improvement of the CSR online reporting of the hotels in Bulgaria in order to use it as an instrument for Internet marketing and hotel brand strengthening;

THE CSR CONCEPT: BASICS AND STUDIES IN THE HOTEL SECTOR

The corporate social responsibility concept is a relatively new theory and practice and according to Kotler and Lee (Kotler & Lee, 2005, p.8-9) it has developed into a more mutually favourable activity which not only benefits society but also the organisation. There are various definitions and opinions for CSR. According to Argandoña (Argandoña, 2010, p.14) , “CSR is a joint and

shared responsibility within the organization". Robbins (Robbins & Coulter, 2012) defines the corporate social responsibility as "a business's intention, beyond legal and economic obligations, to do the right things and act in ways that are good for society". The European Commission (2001) defines CSR as "a concept whereby companies decide voluntarily to contribute to a better society and cleaner environment and as a process by which companies manage their relationship with stakeholders". The European approach provides a potentially useful benchmark for understanding how companies are strengthening their reputations by converging on international norms of CSR. But one of the most comprehensive explanations is this of the President and Fellows of Harvard University which states: "Corporate social responsibility encompasses not only what companies do with their profits, but also how they make them. It goes beyond philanthropy and compliance and addresses how companies manage their economic, social and environmental impacts, as well as their relationships in all key spheres of influence: the workplace, the marketplace, the supply chain, the community, and the public policy realm" (the President and Fellows of Harvard University, 2008:online). According to Nik Ahmad and Sulaiman (2004) corporate image has been discussed as one of the leading motives of corporate social reporting. Voluntary reporting certainly is one way in which corporations attempt to enhance this public image. There are many benefits of social responsibility to an organization and namely: it can provide economies due to increased productivity and resource efficiency, decrease of waste, lower energy and water consumption; it can prevent or reduce potential conflicts with consumers about products or services and it enhances employee loyalty, involvement, participation and morale.

The hotel like every other company is a community of persons who is serving different segments of customers but the important issue is that the activities performed by the hotel when delivering the service should be responsible to the society's interests for sustainable development. Due to the diverse and multidimensional nature of the hotel industry, SR is particularly relevant for the company policy and strategy. Hotel chains have multiple stakeholders such as employees, customers, suppliers, government. They have environmental impact such as water usage, energy consumption, climate change etc. Hotels affect the communities in which they operate and need to be leaders in the areas of health and safety. At the same time in the hotel sector, guests are becoming more conscious with ecology and the respect for various environment matters, consequently increasing the demand for such important characteristics in the hospitality business. The social responsible behaviour of the tourism and hotel companies is important "not only for the good of the physical and social environments, but also for the sustainability of the industry itself" (Kasim, 2006, p. 19). Hotel stakeholders are nowadays demanding not only for sustainable products and/or services, but also require the corporations/the brands to offer greater transparency and to reveal their accountability with regards to the way they carry out business (Krambia- Kapardis & Neophytidou, 2014). Authors and studies reached the conclusion that sustainability reporting within the hotel sector

will gain more momentum in the near future as it will become a valuable tool for gaining a competitive advantage. Carroll and Shabana (Carroll & Shabana, 2010) also argued that corporate social responsibility provides competitive advantage for all kind of businesses. Porter and Kramer (Porter & Kramer, 2006) suggested four prevailing justifications of CSR: moral obligation, sustainability as a form of enlightened self interest, license to operate, and reputation. According to Sacconi (2007) when firms fulfill their “fiduciary duties” to their stakeholders, they benefit from reputation which is maybe the reason why developed countries like USA and UK have long seen CSR as a practice that benefits both organizations and society (L’Etang, 1994). Some authors have focused on the impact of social responsibility on financial performance (Peloza, 2009; Kapoor & Sandhu, 2010; Aupperle, K.E. 1990; Iturrioz, Narbaiza & Ibañez, 2009) and other have pointed out the impact on the creation of stakeholders’ value (Wood & Raymond, 1995; Peloza and Shang, 2011). Study of Uhlaner, van Goor-Balk & Masurel (2004) investigated family businesses in relation to a wide variety of constituent or stakeholder groups and Galbreath (2010) investigates the indirect relationship between corporate social responsibility and firm performance. His research findings suggest that CSR is linked with firm performance. However, the effect is indirect: while corporate social responsibility is linked to both reputation and customer satisfaction, reputation alone mediates the CSR–FP relationship (Galbreath, 2010).

Despite of the conventional view that the practice of CSR is only applicable to large corporations Visser (2007, p. 123) states that ‘the concept of CSR applies to all sizes and shapes of businesses but the focus tends to be on larger organisations as they generally have more power and are more transparent’. Studies reveal that CSR is practised by a broad scope of properties from the largest hotel chains to independent small family hotels. Generally a large number of small- and medium-sized hotels in many countries have not seen the benefits of doing corporate socially responsible activities due to the short-term costs (Pryce, 2001). There are also other barriers for limited implementation of CSR in hotels. Kasim (Kasim, 2004) noted that customer demand for environmentally and socially responsible hotel is not strong; most tourists continue to prefer non-environmentally friendly hotels room amenities, such as fresh towels daily. Bhattacharya and Sen (Bhattacharya & Sen S, 2004) indicated in their study that any business behavior attempting to “sell” corporate social responsibility would backfire on the business. Companies engaging in CSR activities are, therefore, challenged to provide meaningful ways to generate direct and indirect benefits from their CSR activities (Yu, Day, Adler & Cai, 2012). According to Vollaster, Lindgreen and Maon (2012) “while the literature offers a range of approaches seeking insight to how to manage CSR-related issues, practitioners are left in a state of confusion when having to decide on how to tackle CSR in a way that benefits both the corporate brand and society at large. According to Vitola and Rubino (2013) studies of CSR include a gap in explaining the integration of CSR into strategic management: in CSR studies, motivations that lead companies to

integrate social responsibility into strategic management systems do not appear adequately explained.

Research and studies within the hospitality sector during the last decade confirm that hoteliers have already started to include CSR and the reporting practise in their business strategies and especially online reporting¹. Grosbois (2012) in its study evaluates corporate social responsibility (CSR) reporting practice among the largest hotel companies in the world and the research demonstrates that while a large number of companies report commitment to CSR goals, much smaller number of them provide details of specific initiatives undertaken to contribute to these goals and even less of them report actual performance achieved (De Grosbois, 2012, online). In fact, the online reporting fits to two of seven principles of the International standard ISO 26000 which gives guidance on implementing social responsibility by companies- accountability and transparency (Knopp, 2010, online).

There is not much evidence for research about the CSR strategy and practices of the hotels in Bulgaria and there is no study about the online reporting. According to the research findings of the Bulgarian-Swiss study “Attitudes of the Bulgarian hotels for socially responsible and ecological functioning” funded by UNIDO and the Schweizerische Eidgenossenschaft (2010, online) 70% of the hotels in Bulgaria do not implement politics of energy savings and renewable energy sources, waste management systems and do not have rules for avoiding abuse on the job and only 4-5% of the properties implement politics and programmes for water savings and other responsible behaviour practices².

METHODOLOGY

The sample includes 130 hotels selected by random choice from 2 hotel groups- resort and city hotels registered in the reservation system booking.com. The reason for this approach is one of the main research tasks: to identify the differences in the CSR- reporting model of the hotels in Bulgaria with regard to the star category and the location of the hotels. The research was a kind of panel research conducted in 2 phases: first phase “february-mart 2014” and second february-mart 2015”.

The method used for the research purposes is *content analysis* of websites in order to achieve detailed description of the hotel practices concerning their online reporting of corporate social responsibility. After dest research a checklist of various indicators for content analysis was prepared together with a “yes-no” scale: availability or not of activities belonging to the various indicators:

¹ <http://www.marriott.com/corporate-social-responsibility/corporate-responsibility.mi>;
<https://www.choicehotels.com/about/responsibility>;

² The research is conducted with partners DAT (State Agency for Tourism, The Bulgarian Hotel and Restaurant Association and the tour-operator KUONI-Appolo, www.serc.bg;

concern with ecological issues, concern with consumers (consumer protection, consumer care etc.), concern with local communities, human resources concern (employee well-being, employee support and development), mission and value. This checklist of 5 indicators used in research on corporate social responsibility by various authors (Holcomb, Upchurch and Okumus, 2007; Auperle, Carroll and Hatfield, 1985; Clarkson, 1995; Esrock and Leichty, 1998; Jenkins and Yakovelva, 2005) was extended by one more indicator called “*concern with the problems, education and development of young people*”. It was added to the indicators list separately from “concern with local community” due to the problem of the country with the growing rate of young people from marginal groups with insufficient literacy and lack of education. Additional study method for investigation if there are online unreported socially responsible actions was the unstructured telephone interview with managers from randomly chosen 30 small hotels in 3 Bulgarian cities: Plovdiv, Veliko Turnovo, Burgas and 1 resort-Sunny beach- all from the main sample.

Hypothesis 1: The expectations are for highest percentage of hotels with reported activities of “consumer concern”, “ecological concern” and “mission and values concern”. The highest growth rate for 2015 is expected in the group of hotels reporting consumer concern.

Hypothesis 2: The suggestions are that the hotels of higher star category in the sample have in both panels more visible/online reported CSR concerning all 6 indicators included in the web site content analysis. The bigger change in the online reporting is suggested in the group of 5 star hotels.

RESEARCH DATA AND DISCUSSION

The research data about the main sample point out that nearly half of the hotels are with 3star category- 49.2%, more than 1/3 are with 4 star- 41.6% and the rest-9.2% are 5 stars hotels. As far as the hotel location concerns, 83.1% of the investigated hotels are city hotels and 16.9% - resort hotels (in Sunny beach, Golden sands, Bansko and Pamporovo resort). The research findings point out that generally the percentage of the hotels reporting online various activities related to CSR has increased during the period between both panel research: the increase varies for different indicators between 0.8 and 8.6%.

Regarding the first hypothesis the research data confirm the researcher’s expectations but in fact the biggest growth rate is in the group of hotels reporting activities of “human resources concern”- by 8.6% followed by activities of “ecological/environmental concern”- by 6.4% and “consumer concern”- by 4.6% increase of the hotel web sites with online reported activities related to customer care and protection (see Table 1).

Table 1

Changes in the CSR online reporting of the hotels in Bulgaria

INDICATORS	2014 (%)	2015 (%)	Change (%)
Ecological problems concern	9.2	15.6	+ 6.4
Consumer concern	33.8	38.4	+ 4.6
Concern with local communities	7.7	10.1	+ 2.4
Human resources concern	14.5	23.1	+ 8.6
Mission and values of the hotel/hotel chain	35.4	36.2	+ 0.8
Concern with problems of young people from marginal groups	5.4	8.8	+ 3.4

Source: Author (2015)

Generally the hotel percentage which do not report their socially responsible activities decreased for last 12 months by 7% for the whole sample but the situation in this meaning is still not satisfying. The reason for the significant part of hotels with not reported social responsibility is complex but the main is the fact that the majority of the hotels in Bulgaria due to the specific structure of the Bulgarian economy are relatively small properties with staff under 50 people and not sufficient financial resources. In this meaning the fact of lack of online reporting of CSR is not surprising because the conventional view as mentioned before is that the practice of CSR is only applicable to large corporations. Most of the managers of small hotels in Bulgaria are not aware in detail of the CSR concept and the benefits from its implementation both for the hotel and the society. In addition they usually do not know about the international initiatives like UN Global Compact (2013, online) or the initiative of “Green Hotels Association” which puts focus on programmes for water and energy savings and waste management (Green Hotels Association, 2005, online).

The content analysis of the visual social responsible hotels’ policies points out the following indicated activities:

- *Ecological concern*: measures for water consumption and electricity use cut, use of renewable energy sources, waste management, actions for nature preservation;
- *Consumer protection/concern*: certification by quality management systems, special programmes for customer care etc.
- *Human resources concern*: well-being of the employees, big variety of opportunities for training and carriere development, safety and security

in labour, various incentives for different reasons- intrinsic and financial stimuli.

- *Local community concern*: there are v`ery small number of activities conducted and reported online by the companies from the sample: supporting some local organisations and initiatives.
- *Concern with young people's problems*: support for education and development opportunities for minority teenagers and young people;
- *Mission and values of the hotel/hotel chain*: concerning this indicator the most often case is just indicating what the mission of the hotel is like "providing excellent service", "satisfying customer desires" etc. and not so often values.

The research findings show that only the properties of the international hotel chains in Bulgaria-Radisson, Hilton, Best Western and Sheraton have on their corporate websites separate sections about their CSR strategies and policies or they announce different actions in the news section.

With regard to 2nd hypothesis the research data reveal that the author's expectations are confirmed: the higher category hotels are more socially responsible and they are more active as far as their CSR online reporting concerns: the quota of the hotels in the 4- and 5- star category group with online reported activities is much bigger in both panel data in comparison to the 3star hotels and the growth in these two groups for 2015 is significant - between 5 and 9% (see Table 2). The suggestion that the bigger changes for all indicators will be in the group of 5 star hotels was not confirmed and namely the increase in the "consumer concern" reporting is more significant in the 4star hotels group (see Table 2). At the same time the additional investigation via semi-structured interview indicates that nearly 1/3 of the small city hotels- 32.5% of the sample, have introduced some socially/environmentaly actions but they are unreported online due to the lack of such opportunity on the website.

Table 2

Changes in online reported activities of the various category hotels

INDICATORS	3 star hotels	4 star hotels	5 star hotels
	2014 2015	2014 2015	2014 2015
Ecology concern	9.0 12.5	13.3 19.8	23.9 28.6
Consumer concerns	36.1 41.8	38.9 47.6	42.5 49.8
Concern with local communities	7.5 28.3	26.6 35.0	41.5 49.8

Human resources concern	16.5	24.7	24.9
	20.1	29.3	33.2
Mission and values of the company	34.5	37.0	33.2
	36.7	43.8	41.5
Concern with young people from marginal groups	7.5	11.4	8.3
	8.6	13.5	16.6

Source: Author (2015)

Concerning the online reported activities depending on hotel category, the current research as a whole does not indicate significant differences between the 4- and -5 star hotels but the differences between 2014 and 2015 data generally are bigger in the higher star category groups. The differences between 3-star and 5-star hotels are smaller when it comes to the indicators “consumer concern”, “human resources concern” and “concern with problems of young marginal groups” (see Table 2).

CONCLUSION AND MARKETING IMPLICATIONS

Generally despite of the improved situation of the 2nd panel research data, the majority of the hotels in Bulgaria do not have sections on their websites for reporting of social responsible activities. This means that the majority of the hotel managers do not realize that the publicity of their socially responsible activities can contribute to the hotel image and especially can strengthen it. The research findings suggest that the higher category hotels are more active in socially responsible behavior and in online reporting. The research findings show that the most online reported activities belong to following 3 groups: human resources concern, ecological/environmental concern and consumer concern. In order to facilitate the online reporting, the hotels in Bulgaria must redesign their websites in order to introduce a special section about CSR actions and activities where they can inform the audiences about their socially and ecologically responsible behaviour.

The activation of the social responsibility of the hotels in Bulgaria and its online reporting is a good opportunity for repositioning to some extent in a different segment but for this purpose there is a need for training and qualification upgrading of the hotel managers. This will help them to realize that corporate social responsibility can add more value to their brands and products and can become an additional instrument for brand strengthening among the segment of ecologically and socially oriented consumers. Except that the CSR programme/plan should be incorporated in the hotel business strategy. The top management of the hotels needs to take responsibility for understanding, implementing and driving SR strategies throughout a hotel company or individual

property. This information must be cascaded to the lowest positions in order to motivate the human resources for company's success.

The bigger hotels in Bulgaria and the two Bulgarian hotel chains should think to introduce a socially responsible programme similar to international hotel chains' programs "Hotels Room for Responsibility program" which symbolizes the organization's engagement to the values of society's sustainable development. The positioning of the hotels in Bulgaria with respect to social issues is a way to differentiate the property and its services in ways that create value which could help the hotel to form a community of socially responsible and loyal clients.

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CORPORATE SOCIAL RESPONSIBILITY AND SPORT

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"One of the things I learned when I negotiated the termination of apartheid was that until the change itself will not be able to change other"

Nelson Mandela

"You cannot escape the responsibility of tomorrow by avoiding today"

Abraham Lincoln

Abstract

Strategic orientation of world famous companies to actively contribute to the development of society, supporting projects and initiatives of national importance that are consistent with the values for which it stands. Thus, the countries of the Balkan region, including Serbia, to accept corporate social responsibility as a system that makes their business more successful. Adhering to the principle that „there is something above profit,“ the company continuously support collectives, projects and talented individuals in the fields of science, technology, education, health, sports, culture and arts. Charity support to socially vulnerable groups and initiating socially responsible activities is an important factor in future investment and an integral part of the corporate culture of the company. In addition to pay great attention to the collective popular sports, such as football or basketball, significant support is directed towards stimulating development of sports associations related to sports which the state pays less attention, such as judo, wrestling, karate, biking, skiing, gymnastics and others, but also those that bring together young people with

disabilities. This paper is an attempt to review the development of Corporate Social Responsibility in companies and enterprises in Serbia, especially in the function of sport and comparative overview of the situation in the region.

Key words: corporate social responsibility, sports, humanitarian activities

1. INTRODUCTION

The concept of Corporate Social Responsibility – CSR, is relatively new in Serbia. Corporate social responsibility means the company's commitment to contribute to the sustainability of economic development to improve the lives of employees and their families, local communities and society in general (Drucker, 1984).

According to European Union Green Book (2001), being socially responsible means not only to fulfill legal obligations, but to go beyond mere compliance with laws and invest more in human capital, environment and relations with stakeholders.

Corporate social responsibility is a practical example of the strategic planning of sustainable development at the enterprise level. Sustainable business success must have at least three components: economic, environmental policy and social policy, as well as management or decision-makers with a vision. This is also demonstrated by representatives of the authorities, but it is a different kind of responsibility (Kotler & Lee, 2007). Application of the concept of CSR in practice shows that the social engagement of corporations and profit maximization and shareholder value are not exclude each other, but strengthen.

Corporate social responsibility is the concept of managing a company that maintains a balance between economic and social goals in order to "establish higher standards of living, while maintaining the company's profitability, for people in and outside the company" (Cadbury, 2000).

Serbia started the political and socio-economic transition much later, in comparison to neighboring countries, and the corporate social responsibility of late, both in theoretical and practical meaning. But in Serbia has always been present giving, in the form of an endowment or humanitarian funds that were established by wealthy noble people. The revival of the practice of socially responsible business in a way a continuation of the human contribution to those humanitarian workers who gave to organizations, associations, communities, individuals, groups and society for the benefit.

Mihajlo Pupin (1854-1835) founded the most humanitarian funds, including education for youth, for publishing material on the Serbian antiquities,

the Fund for the work in the National Hall and Pupin horticulture school in Idvor. Financial helped many companies, community associations, associations, families and individuals. Help of Pupin arrived to all parts of the former Yugoslavia. In the elementary school in Idvor, in the birthplace of Mihajlo Idvorski Pupin, has been open Memorial Museum, funded the National House restored building construction, built a post office with telephone switchboard that allowed all the inhabitants of this village to get a telephone connection with the world. (Kostic & Urosevic, 1993).

2. CSR - WHAT IS IT?

The concept of corporate social responsibility is very extensive. Understanding of corporate social responsibility is not unique, nor universal and there is no list of activities and areas that this term includes. Corporate social responsibility entails, generally looking at that company, the profits to be responsible not only to shareholders, but also to individuals and groups, and all the stakeholders to whom it in any way reflects (Ducker, 1984).

Many authors have written in different ways on corporate social responsibility during fifty of years. Their definitions of CSR have similarities, but also differences.

Social Responsibility is the obligation of businessmen to pursue those regulations, bringing those decisions and to take those steps that are desirable in terms of objectives and values are represented in our society. Social responsibility includes an important truth that the future must be the guiding principle in business (Carroll, 1999)

Social responsibility refers to the obligation of people to consider the consequences of their decisions and actions on the social system as a whole. Business people apply social responsibility when they take into account the needs and interests of those who may suffer the consequences of their business decisions. In doing so, bear in mind the interests that are much broader than those narrow, technical, interest of their companies. (Davis & Blomstrom, 1960).

Corporate social responsibility is a company's commitment to contribute to sustainable economic development, working with employees, their families, local communities and society, in general, in order to improve their quality of life (Holme & Watts, 2000).

Being socially responsible means not only to fulfill legal obligations, but to go beyond mere compliance with laws and invest more in human capital, environment and relations with stakeholders (European Commission, 2001).

What connects all these definitions of corporate social responsibility are also the basic principles of the system. These are community involvement,

accountability, sustainability, transparency, ethical behavior, fairness and inclusion.

These principles have several basic characteristics in common.

The universality - apply to all types of companies.

The voluntary - realization takes place on the basis of free will.

Cooperation - are directed to cooperate with stakeholders.

The contribution of quality - express obligation to contribute to the quality of life, not just quantity.

Development - highlights development and not just economic growth. (Jones et al., 1980).

The three pillars of sustainable development - the „Triple result“-socially responsible companies strive towards the goal of which includes a triple result - a business that has social, economic and environmental impact (Carroll, 1979).

3. SOCIAL RESPONSIBILITY – WAY TO HAPPIER SOCIETY

Increasingly confronted with the question of how can be a better and happier society. Research suggests a practice confirms that one of the ways could be - taking less and giving more. Isn't it, in fact, socially responsible action? There are more examples of social groups, individuals, businesses and companies, personal action affect the better living conditions in the region, supported by specific social projects. In this way become an integral part of quality of life and work in a common area and contribute to the betterment of society as a whole.

Three European Union countries - Sweden, Denmark and Finland, occupying the first three places among the top 20 countries in the world to develop the practice of corporate social responsibility. Since 2008, corporate social responsibility (CSR) is included in Denmark law. Consequently, the largest Danish companies must include certain information on corporate social responsibility in their annual financial reports.

One shining example corporative social responsibility is just out of this country, but well before the said law was enacted. Maersk Mc -Kinney Moller, shipping magnate, donated in 2005 by the people of Denmark the new building of the Opera, which is amazing of the architectural and cultural sensation. There are many other positive examples from the world.

Canada has adopted a national stance and develop standards of WHO and expects the Canadian company accordingly and behave, but it is not binding

legally. The European Union is actively working to identify the best legal framework for CSR. However, India is the first country in the world where the company on 1 April 2014. The legal obligation to allocate 2% of their net profits to social needs. Many companies did not have this obligation, but only those whose net worth 5 billion rupees (about 80 million US dollars) revenue of approximately \$ 160 million or if their net profits exceeding 50 million rupees. In this way, it is planned to annually collect about \$ 2 billion in socially responsible projects.

While as recently as 15 years ago, CSR did not play a significant role in sport (Kott, 2005; Robinson, 2005), professional sport organizations are now entering into socially responsible initiatives at a rapid pace. Despite this increase, there has been no empirical work examining the factors that motivate professional sport organizations to become involved in socially responsible activities (Babiak & Wolfe, 2009).

Professional sport leagues (e.g., National Hockey League (NHL), National Basketball Association (NBA)), corporations (e.g., Maple Leaf Sports and Entertainment, Palace Sport and Entertainment), teams (e.g., Toronto Maple Leafs, Toronto Rock, Detroit Pistons, and Detroit Shock), and athletes (e.g., Curtis Joseph, Chauncey Billups) are influential agents in our society when considered from both economic and cultural perspectives (Kern, 2000). Due to the importance of developing and maintaining good relations with the communities in which they operate, the above mentioned entities often turn to community outreach activities to build good-will among salient stakeholders (e.g., local businesses, public policy makers, members of the community). These activities take a multitude of forms, including programs where coaches and/or athletes contribute time to particular causes and/or financial donations to causes, often via the formation of charitable foundations (Irwin et al., 2003).

Virtually all organizations within the sport industry, broadly defined, have adopted CSR programs. From Nike and Reebok to the NBA and NASCAR, examples abound of activities undertaken to bring messages and resources to underprivileged and other members of society who may not otherwise be the targets of socially responsible initiatives (Babiak & Wolfe, 2009).

According to Babiak and Wolfe, (2009), the types and focus of community outreach initiatives vary considerably. Leagues have programs such as the NHL's „Hockey Fights Cancer“ wherein funds are raised to support cancer research and „NHL Diversity“ programs that provide support for youth hockey organizations committed to offering economically disadvantaged boys and girls opportunities to play hockey. The NBA's „Read to Achieve“ program is a community outreach initiative implemented by individual teams to encourage youth to read, and its „Basketball Without Borders“ initiative involves a summer camp for young people designed to promote friendship, goodwill, and education through sport. Major League Baseball (MLB) and the Boys and Girls Clubs of America have had a long term association. Leagues such as the National Football

League (NFL), MLB, and the NHL have also begun to address environmental concerns. Thus programs to offset carbon emissions, as well as recycling efforts during games and major events have been implemented (Major League Baseball Team Greening, 2008; National Hockey League Green, 2008). Charitable giving has been at the core of how the PGA Tour operates; in 2005 the PGA surpassed the \$1 billion mark in charitable donations and announced an ambitious goal of matching that total again within 10 years (Babiak & Wolfe, 2009).

And what is the situation in our environment?

While the concept of corporate social responsibility implemented for decades all successful companies in the world, in Serbia, but also in its surroundings, it is only beginning to develop. Help is usually directed at education, health, culture, sports, arts. While Serbia can be proud of its tradition of patronage and donations, (known as endowments from the late 19th and early 20th century – Mihajlo Idivorski Pupin, Ilija Milosavljevic Kolarac, Miša Anastasijevic, Nikola Spasić, Persa and Risto Milenković, Vladimir Kaleni', Luka Čelovic Trebinjac, and even earlier Sava Tekelija, Mary Trandafilović and even earlier, a constellation of benefactors from Nemanjić - corporate responsibility in the contemporary practice of recording only the first steps. It is wider application of the stops transition and economic crisis, rather than the incentive of development. Similarly, in countries of the region, which is similar fate. Awareness about the importance profits outweighed the philanthropic impulses. Most Serbian citizens, most of whom live barely assembling end with the end of fighting with poverty, coping with job loss or impossibility to employment do not take into account the CSR when buying something.

Fortunately, more and more large companies that the system of corporate social responsibility into their everyday practice. Employee care, living environment, brings mutual use it and adds a little more profit - esteem, respect, reputation, and more users or customers. Among them are „Hemofarm“, „Lafarge“, „Holcim“, „Telenor“, „Tiger“, „Cisco Systems“, „EFG Eurobank“, „Societe Generale Bank“, „Purezs bank“, „Credit Agricole Meridian“ „Gazprom Neft“ „Cisco Systems“, EFG Eurobank. „Societe Generale Bank“, Carlsberg ", „Banca Intesa, „Erste Bank“ „Efes“, „Philip Morris“ „Titan“, „British American Tabaco".

Some companies have been incorporated CSR in the business system and the results are expressed in business reports. Especially shining example of corporate social responsibility in the Banat region of the Company „Gomex“ in Zrenjanin, which contributes to the realization of significant projects in the field of culture and art, as well as sports.

Some of the companies already are winners and various awards for socially responsible behavior. That's Telenor won the VIRTUS Award, awarded by the BCIF, from the NGO sector, corporate philanthropy, in the category of special contribution at the national level in the field of corporate responsibility.

Awards „Virtus“ Corporate Philanthropy awarded to seven years in eight categories. For last year's award were registered 34 candidates, mostly for the local community. This year the competition for the award was conducted by Trace Foundation, with financial support from the European Union, the Government of Serbia Team for social inclusion and poverty reduction, and the Balkan Trust for Democracy.

According to Director General of NIS, Kirill Kravchenko, a company headed until now in philanthropy invested more than five billion dinars „Our Company has a Serbian origin, carries the name of Serbia, but has a European future“- said Kravchenko. NIS was nominated for the prize Association for Local Development Kamenica for the financial support of the communities in which NIS operates through a program of corporate social responsibility. Through this program, entitled „Cooperation for Development“ NIS was 2103. year supported 145 projects, including a number of sports.

NIS received the award for the program to support science and education „Power of Knowledge“ as well as the action of corporate philanthropy in which they are employed and companies together in maternity wards across Serbia bought 23 appliances „cardiotoography“ (CTG) as a diagnostic method for monitoring the fetus condition and delivery flow.

Acknowledgement for the local community has gained bank "Eurobank Beograd" for contribution to the action „Big Heart“ for the reconstruction of children's playgrounds in state kindergartens.

A media company „E-gate“ received an award for media contribution because it is through the section „philanthropist“ stood out socially responsible companies and their humanitarian actions.

Banca Intesa received an award for volunteering over the „Wrap gift - make us smile“ - At eight elementary schools and one kindergarten in Serbia.

„Bambi“ Company from Požarevac won the Prize for action „Juh! Playgrad“ - to improve conditions on the courts, won the award for the most innovative project.

Delta Holding has won awards for its contribution to social inclusion, while the award for long-term partnership received Telekom Serbia.

Director of Free Zone Pirot, which was awarded to small and medium-sized enterprises, Dragan Kostic called on the businessmen to join humanitarian activities because, he says more can contribute to a better society.

Head of the European Union Michael Davenport, who presented the award at a ceremony in Belgrade in early 2014, indicating the importance of contributing to the common good, addressing ethical issues and human rights. „Thank you, despite the challenges, we continue to expand the awareness of corporate engagement in Serbia. Corporate social responsibility is an important

factor for strengthening the competitiveness and sustainability of the economy“ - says Davenport.

Nevertheless, comprehensive and systemic solutions in the field of CSR no, but absent and higher domestic corporate ventures and stronger support from the state. Capitalism largely paving the area, but his creativity did not come to the fore.

The practice of companies in the world confirms that investment in the community benefits. This way of building bridges of trust with its customers and the positive image that stakeholders recognized as a recommendation for cooperation. Although advertising makes more profit, more useful in the long run becomes an investment in the development of the system of corporate social responsibility.

What managers of major international companies that operate or have operated until recently in Serbia say about that?

„This includes not only the treatment of employees in a company, but also the problems of local communities Participation in environmental projects and for companies it means a great success in the long run“ - said Douglas Matthews, from US Steel Serbia. Unfortunately, US Steel has not been operating in Serbia.

„If you ask me in what to invest more, I'll tell you definitely Corporate social responsibility“ - Says Stavros Ioannou, from Eurobank EFG.

„People are tired of commercials, sometimes they are completely insincere and are bombarded with advertisements from all sides, and with the social responsibility of investing in education and culture and community that recognizes that“ - Said Miodrag Stojadinovic from Philip Morris.

Solving the problems of the community the most, however, should help the state institutions. Government is the first that must be given to that concept.

„The process of privatization and new companies that are coming should bring with them a culture of corporate social responsibility“ - considers Radovan Jelacic, former Governor of the National Bank of Serbia.

The media have an important role in solving community problems. For example, the media coverage of the Women's Safe House provided a large number of donations for victims of domestic violence.

4. CORPORATE RESPONSIBILITY IN THE DEVELOPMENT OF SPORT

The Company „Siemens“ and Company „Universiade Belgrade 2009 d.o.o.“ were strategic partners in the preparation and organization of the Summer Universiade, which was held in the Serbian capital from 15th to 26th July 2009.

On behalf of the Universiade Belgrade 2009 doo agreement signed Sinisa Jasnica, General Director of the Universiade Belgrade 2009 and Alexander Šoštar, Director of Sports in the Ministry of Education and Sports of the Republic of Serbia and President of the Executive Committee of the Universiade Belgrade 2009, and on behalf of Siemens d.o.o. Belgrade, Obrad Spremić, CEO and Kurt Schwarzlmüller, commercial director.

Sinisa Janic says that strategic partnership with Siemens, on the occasion of the Universiade 2009, very important for our country and sports:

„Cooperation with Siemens as strategic partner for the Universiade Belgrade 2009, is an exceptional honor and a guarantee that in the preparation and organization of the Universiade will be used the most modern technologies, equipment and knowledge of the employees of this global giant. Siemens, together with us, and takes care of the entire organization of the event, which goes beyond the borders of sports. We are convinced that with Siemens to organize the best Universiade so far, and that the technical solutions, information technology, security system and professionalism to be a standard in the organization of future major sporting competitions. I believe this is the beginning of a long-term sports - business cooperation, whose results cannot be seen in a short time, because it will largely overcome local boundaries“.

Siemens d.o.o. Belgrade, as part of a large multinational company in Serbia, feels an obligation and a desire to contribute to the development of Serbia, as well as its successful affirmation in the world through sporting events, such as the Universiade 2009. Siemens, as a global company that has experience in supporting global events in the world such as the Olympics, World Cup, etc., is a natural and logical strategic partner of the Universiade 2009, our country and economy.

UniCredit's sponsorship of the UEFA Champions League added the note of social responsibility initiatives associated with dedicating the final match of humanitarian activities. „Make a kid smile" campaign is to encourage employees and the general public to support UniCredit Foundation whose resources are aimed to help local communities. This initiative is directed where it is most needed, in some of the countries in which UniCredit Group operates. Soccer is a game big emotion, full of ups and downs, just like real life. With a range of activities that follow the Champions League final of 2011, „UniCredit underlines commitment to the football community that goes beyond the sponsorship of the UEFA Champions League and reaches social inclusion projects, with the aim of making tangible benefits to local communities and those in need of assistance“ - said Maurizio Beretta, Director of Identity and Communication at UniCredit.

Under the slogan „The funniest kid“ UniCredit invited all to join in creating a unique football experience dedicated to children. For each participant actions which set smiling photo on the website <http://be-part-of-it.unicredit.eu/hr/>, UniCredit Foundation, the corporate humanitarian organizations operating within UniCredit, has donated 10 euros - up of the total amount of 200,000 EUR - the

Open Fun Football School"(Open Fun Football School), a project that promotes the values of fair play, team spirit and mutual respect among children in divided societies.

Open Fun Football Schools is a humanitarian initiative under the leadership of the international humanitarian organization that involves working with children from 7 to 12 years, who organize cheerful games and pedagogical concept „Fun Football“. This can help ensure peaceful coexistence, gender equality, tolerance and social cohesion in countries and societies to which they contributed to the war and ethnic conflicts.

Campaign support has arrived by uploading photos to the address <http://be-part-of-it.unicredit.eu/hr/>. Application „KIDSMILE-ME" redesigning photo smiling face and after registration becomes part of the gallery KidSmile Arena. As Official UniCredit Ambassador to the UEFA Champions League and generous donor, Luis Figo has provided strong support to this campaign and I gave her a picture of this gallery.

According to Maurizio Carrara, the head man of UniCredit Foundation, „this initiative demonstrates how sport and social commitment can go together“. "We hope that our many fans of football, sending his pictures to the gallery, encouraged to donate a substantial amount of this valuable and far reaching project" - were his expectations, that realized.

The example of CSR practice is Hellenic Coca Cola.

Eleventh Belgrade Coca-Cola Bicycle gathered thousands of cyclists who, through their participation once again send a message about the importance of recreation and active living. City event under the slogan „Bicikliraj Belgrade“ was organized by the Association „Sport for All“, sponsored by the City of Belgrade and with the Coca-Cola system, as a partner, who, like years back, and this time motivated and inspired participants to make their move for joy. Ride did not have competitive, but recreative. This year's Belgrade Coca-Cola cycling joined the youngest participants cycling with their parents, the older children, as well as members of various bicycle association in Serbia.

About this manifestation, Slavica Rakic, President of the Association „Sport for All“, Belgrade, said: „We are pleased that this year Belgrade Coca-Cola Bicycle reunited wide circle of those who regularly or occasionally riding a bike. Thousands of participants who are now driving to Ada gave full contribution to the development of recreational cycling and sport in general in our country, and I'm sure it will be so in the future“.

Recreational, safe and lightweight drive from the Republic Square to Ada participants of this year's sporting event promoted the bike and highlight the benefits of using this means of transport which avoid the crowds and do not pollute the environment. The specialty of Belgrade Coca-Cola Bicycle Race is in that the fans could bike completely undisturbed to enjoy driving the streets of Belgrade that are normally provided to motor vehicle traffic.

Another Hellenic Coca Cola event are „COCA - COLA Fun Run“ This year's Coca-Cola race satisfaction gathered thousands of citizens of all ages who are in a good atmosphere Belgrade streets walked or ran five kilometers. The race that is not a competitive event but brings together all those who want to enjoy on the go just aims to emphasize the importance of regular recreation. The marathon is run and promoted more than 100 employees of Coca-Cola system, as well as 150 graduates marathon that Coca-Cola system continuously supports A large number of people came because of fact that race had human character. The Coca-Cola system to donate funds the Department of Children and Youth, which will be invested in equipping and arranging houses in Čortanovci where residents of this institution spends weekends and summer in nature.

Milica Stefanovic, represent of the Coca-Cola system said: „Today, we once again confirm that this event is rightly called the Race of Pleasure. Proof of all people of good will who are with us today to enjoy on the go. This, and other events that support or partnership organized in the framework of our platform Movement for joy, we want to draw attention to the importance of recreation in everyday life. Even greater is the pleasure that we will use this opportunity to help the children from the Institute for Children and Adolescents, and to provide them settling corner where they will spend time just to recreation and play“.

During the race, significant attention was paid to the responsible treatment of the environment, and the partners Coca-Cola system from Sekopak sure that used packaging is collected and disposed of.

Celebrating 45 years since the beginning of production in Serbia, Coca-Cola system's citizens donated 45 outdoors gym. Citizens are chosen by voting in which cities and municipality gyms will be built. The project was launched in cooperation with the National Alliance for Local Economic Development (NALED) and with the support of the Ministry of Regional Development and Local Self-Government and the Ministry of Youth and Sports. Gyms were built in small, medium and large municipalities, 15 in each of them.

Small municipalities: Bela Palanka, Babušnica, Mali Zvornik, Dimitrovgrad, Niška Banja, Lapovo, Bosilegrad, Bački Petrovac, Opovo, Boljevac, Nova Varoš, Lajkovac, Osečina, Novi Kneževac i Batočina. Medium municipalities: Majdanpek, Svilajnac, Priboj, Odžaci, Tutin, Sjenica, Bajina Bašta, Negotin, Petrovac na Mlavi, Bogatić, Kovin, Raška, Kanjiža, Arilje i Šid. Large municipalities: Zaječar, Kikinda, Sombor, Lazarevac, Bačka Palanka, Pančevo, Loznica, Novi Pazar, Valjevo, Bor, Zrenjanin, Obrenovac, Užice, Pirot i Leskovac.

Projects „Free fitness for all" and „health programs“, in schools and fitness centers are results of cooperation between selected fitness centers and municipalities in Serbia. Projects are realized two times during each year science 2007. Project supported and financed by state and municipalities budget. The project is the result of cooperation of selected fitness clubs and centers, schools

and gyms, 4 months, 2 times during the year. On this way different fitness programs are presented and they are affordable and available to everybody.

They are bright example of good practice that should be followed by every city and regions in Serbia. This can be good way for raise conscience about health and adoption of health habits, including regular daily exercise. This project can contribute of raise awareness of fact that public health is important for health nation. It is also a good way of socialization, making friends, overcome obstacles, raise a quality of life and work of each individual, making progress of community and society, as well.

5. INSTEAD OF CONCLUSION

Corporate social responsibility is a real the need for companies. The concept of Corporate Social Responsibility has ten years ago, a relative unknown for a significant part of the company in Serbia, and even more for the domestic public. Companies which have decided to start doing business in a manner that is consistent with those standards generally cited good image as the main motive. Reputation remained an important driver for companies that want to present yourself as a good „social actors“ who, for example, do not pollute the environment, help the neighbors who live in difficult conditions and the welfare of its employees.

A very important segment in the system CRS's contribution to the development of sport, sports clubs and individuals.

Can we be happier and better society. The authors of this paper believe, and this is corroborated by the examples, it is possible, if we are more giving than taking. Countries, companies, enterprises, individuals. And they are sure that only in a healthy body, healthy mind. If sport is one of the ways that the body is healthy, then the contribution to the development of sports, mass and high performance, social responsibility in action.

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CORPORATE SOCIAL RESPONSIBILITY: THE ROLE OF CODES OF CONDUCT IN FOSTERING ENVIRONMENTAL SUSTAINABILITY IN LATIN AMERICA¹

JEL classification: K32, M14

Abstract

Spanish multinational enterprises (MNEs) are a prime example of how companies benefit from globalization and expand their activities worldwide through foreign direct investment. This paper has a legal perspective, focusing on the environmental performance of Spanish MNEs in Latin America and their corporate social responsibility (CSR) through the adoption of codes of conduct. As a result of a set of factors, Spanish MNEs have implemented voluntary CSR initiatives, strategies and standards in their day-to-day operations. This paper analyses the scope of codes of conduct that are aimed at achieving environmental sustainability in Latin America. The guiding question is whether these codes of conduct are able to influence the environmental performance of Spanish MNEs operating in the region.

Key words: codes of conduct, environment, sustainable development

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1. INTRODUCTION

In an era of globalization, multinational enterprises (hereinafter MNEs) play a leading economic and political role in the international economy (Kinley, Joseph, 2002; Abdul-Gafaru, 2009; Gatto, 2011). These enterprises tend to relocate their industrial activities, the most visible trend being from the Global North to the Global South (Weschka, 2006). Many Spanish MNEs, for instance, have entered Latin America during recent decades seeking efficiency, economic growth and resources (Casanova, 2003). They are attracted by the wide range of natural resources and raw materials (minerals, metals and hydrocarbons), cheaper labor, weaker competition between companies operating in the same sector, proximity to destination markets, and lax environmental, social and indigenous standards (Casanova, 2003; Guillén, 2006).

In the context of global environmental change, MNEs are part of the problem. Even though they may be central to the solution, their activities usually involve negative economic, political, social and environmental impacts. As regards the environmental effects, MNEs have abundant resources in terms of technologies and R&D capabilities for improving environmental conditions. However, the empirical evidence shows that they contribute greatly to environmental degradation (Muchlinski, 2007; Morgera, 2009; Yoke Ling, 2012).

The performance and behavior of MNEs is therefore important when it comes to fostering environmental sustainability. As Choucri points out, “their actions and strategies are crucial in determining the environmental landscape” (Choucri, 1991, p.52). Unfortunately there is no global regulatory regime to ensure that companies commit themselves to environmental sustainability. All efforts have so far relied on voluntary, non-binding initiatives from intergovernmental organizations, especially international and regional codes of conduct. Insofar as these initiatives are voluntary, MNEs maintain an advantage, so although most companies have adopted and/or adhered to codes of conduct, the environmental consequences of their activities are still mostly negative.

In this paper we discuss this background by looking at the operations of Spanish MNEs in Latin America, where these companies occupy an important economic and social position. The paper is based on theoretical research. The methodology used is a comprehensive, systematic, comparative and conclusive analysis of relevant peer-reviewed literature (mainly journal articles) and reports concerning Spanish companies’ environmental impacts and contributions to environmental sustainability in Latin America. In our hypothesis, the analyzed CSR initiatives do not fill the legal gaps concerning the environmental performance of MNEs and contribute minimally to foster environmental sustainability. In addition, their adoption has an adverse effect because they could legitimize the negative environmental impact of MNEs’ operations.

2. THE ENVIRONMENTAL PERFORMANCE OF SPANISH MNEs IN LATIN AMERICA

During the 1990s, the economic, financial, ideological and political adjustments deriving from the «Washington Consensus» created the ideal setting for MNEs. Many Latin American countries implemented these neoliberal adjustments within their national regimes. This meant opening up economies to foreign direct investment (FDI) and privatizations, reducing trade barriers and limiting state intervention in economic and commercial activities, thereby benefiting private agents and companies. These circumstances together with the subsequent coming into force of the Treaty of Maastricht on European Union (1993) brought the implementation of neoliberal economic policies in Europe too. Spanish companies reacted to the opening up of the Latin American economies and the threat of acquisitions by larger rivals by internationalizing their operations with the aim of becoming bigger and diversifying in order to meet the challenge of foreign competition (Paz et al., 2005; Álvarez, 2007; Pulido, Ramiro, 2009; Pérez, 2012; Iglesias Márquez, 2014).

Spain soon became the largest European investor in Latin America (Verger, 2003; Paz et al., 2005; Pérez, 2012).

Table 1 and Figure 1 show the increase in net Spanish FDI in several Latin American countries during the 1990s:

Table 1

		Net Spanish FDI (million US\$)								
Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Million US\$	7309	11563	13185	11860	25682	38157	38157	58500	58100	

Source: Own based on Durand, 2007

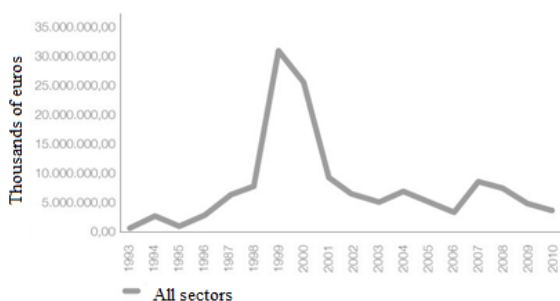


Figure 1: Spanish FDI in Latin America (1993–2012)

Source: OMAL, 2014

As can be seen in Table 2, Spanish MNEs are today leaders in several Latin American sectors including telecommunications, energy and banking (Verger, 2003; Guillén, 2006; Pulido, Ramiro, 2009):

Table 2
Fortune Global 500 (2014)

Company	Ranking position	Revenues (Millions)
Banco Santander	73	\$ 98,506
Telefónica	109	\$ 75,752
Repsol	126	\$ 69,148
ACS	202	\$ 50,941
BBVA	206	\$ 49,966
Iberdrola	244	\$ 43,554
Gas Natural Fenosa	360	\$ 33,147
Mapfre	415	\$ 29,864

Source: Own based on Fortune Global 500, 2014

Examples of economically successful Spanish MNEs in Latin America by sector include:

- Telecommunications: Telefónica leads this sector, maintaining a presence in 19 countries in the region (Álvarez, 2007; Carrión et al., 2013). Between 1990 and 2002 alone, Telefónica invested 30,500 million dollars in acquisitions in Chile and Argentina (1991) and Peru (1994) (Chislett, 2003; Illán, 2010). According to the Economic Commission for Latin America and the Caribbean (2012), in 2010 the company had revenues of 22,000 million dollars, 60% of which came from its operations in the region.
- Energy: the electricity sector is controlled by just a few large companies. Endesa became the largest private company in Latin America when it bought the Chilean company Enersis (Kucharz, 2007, Greenpeace, 2009). Iberdrola is the second most important private company in the region, operating in six countries. Meanwhile over 27% of Gas Natural Fenosa's total installed power capacity to produce electricity comes from countries in Latin America (Álvarez, 2007). As regards the income these companies obtain from their operations in Latin America, Iberdrola, Gas Natural Fenosa and Grupo Prisa obtained 32.22%, 25.23% and 23% of their revenues respectively from these countries, which accounts for nearly a third of their net revenues (Carrión et al., 2013). Finally, Repsol has become the largest transnational oil company in Latin America,

targeting 78% of its FDI in the region (Álvarez, 2007). Today Repsol maintains a presence in 12 countries in Latin America (Gavalda, 2003; Gavalda, Carrión, 2007; Pulido, Ramiro, 2007).

- Banking: Santander and BBVA are the largest banks in Latin America (Pulido, Ramiro, 2009). The Santander Group (hereinafter Santander) tops the list of Spanish companies in Latin America. The bank took advantage of financial liberalization (Chislett, 2003) and began operations in Chile, where it acquired several banks before moving on to other countries in the region. BBVA has also positioned itself as one of the largest banks in the region. In 2009, Santander recorded profits of 2,096 million euros from Latin America, mainly Brazil, Mexico and Chile, while BBVA recorded total profits of 1.38 billion euros, 588 million of which were from the region (Guillén, 2006). The operating revenues of Santander and BBVA contributed 30% and 49% of their global profits respectively (Observatorio de la RSC, 2010: 19).

Taken together, these companies are responsible for 95% of total Spanish investment in the region (ECLAC, 2012).

However, despite the huge importance of Latin America for the largest Spanish MNEs, the empirical evidence shows that there are countless examples where corporate involvement results in environmental degradation. These negative socio-environmental externalities are often borne by the society and not the enterprise (Martínez-Alier, 2004).

In this regard we can see clear examples of the environmental problems caused by Spanish MNEs by looking at Repsol's activities in Latin America, where the company has received various complaints about the environmental degradation caused by its operations. In Argentina it has been accused of causing oil spills and air pollution as well as lead poisoning due to the presence of abandoned and unsealed wells in Comodoro Rivadavia (Ramiro, Pulido 2007; Greenpeace, 2009). In Colombia, negative impacts include the environmental degradation and destruction of both the ecosystems and the livelihoods of thousands of families in Putumayo and Arauca (Ortega, 2005; Gavalda, Carrión, 2007; Greenpeace, 2009; Ramiro et al., 2007). In Bolivia it operates in the territory of the Guarani of Itika Guasu in Chaco, whose communities accuse the company of conducting its industrial activities without meeting the requirements for free, prior and informed consultation, affecting indigenous peoples in particular (Rodríguez-Carmona, 2008; CEDIB, 2008). In Ecuador numerous complaints have been made by environmental NGOs and indigenous groups regarding the damage caused by its operations in the Yasuni National Park (Ramiro et al., 2007; Greenpeace, 2009; CEAR, 2012; Uharte, 2012).

In the electricity sector, Spanish MNEs have also been accused of environmental damage and human rights violations. With investments in power generation projects based mainly on fossil sources, the greatest impacts are caused by carbon dioxide (CO₂) emissions, though companies are also

responsible for impacts caused by the construction of large-scale dams. Endesa has been involved in socio-environmental conflicts in various countries. In Chile the company is responsible for several projects with a high environmental impact (Kucharz, 2007; Ortega, 2005; Paz, 2006). In Colombia, Emgesa (a subsidiary of Endesa) is responsible for the highly contested El Quimbo dam, a hydroelectric project under development which will affect the most important river in the country, the Magdalena (Pulido, 2014).

Iberdrola has also been responsible for negative environmental impacts in the region, most significantly those caused by its thermal power plants in Mexico and Brazil. In Mexico, 96% of its total generation capacity comes from combined-cycle gas and cogeneration, which produces large amounts of CO₂ emissions. The company has also been accused of destroying natural habitats and impacting on biodiversity in the Brazilian Amazon rainforest, where it is part of a consortium operating the heavily contested Belo Monte project, which affects native biodiversity and the river volume flow rate (Uharte, 2012; Del Moral, Bermann, 2012).

Finally, Gas Natural Fenosa is also responsible for causing negative environmental impacts from the projects it runs. One repercussion of the La Joya hydraulic plant in Costa Rica is the drying-up of springs located in the vicinity of its infrastructures (Ortega, 2005). In Colombia its hydraulic plants have flooded areas of huge natural and cultural value and its operations have resulted in several spills (Ramiro et al. 2007; Ortega, 2005). The company has also impacted negatively on the environment in Panama, Guatemala and Nicaragua (Ortega, 2005).

Last but not least, financial entities such as Santander and BBVA have been indirectly responsible for environmental impacts through the financing of projects with potential environmental risks. Santander has financed at least three controversial hydroelectric dams, two in Brazil (the Jirau and Santo Antonio dams) and a third in Colombia (the Hidrosogamoso dam) (Avendaño, Duarte, 2012; Ejolt, 2014). BBVA financed Endesa-Chile's plans to construct five large-scale hydroelectric dams in Patagonia which are expected to flood nearly 6,000 hectares, including the farmlands of local communities in nine regions (Sáez et al., 2008).

3. CORPORATE SOCIAL RESPONSIBILITY, CODES OF CONDUCT AND ENVIRONMENTAL SUSTAINABILITY

Both academia and international society have called on companies to promote environmental sustainability in their activities. Morelli (2011, p.6) defines environmental sustainability as “a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological

diversity”. Indeed, some authors argue that MNEs play an important role in achieving environmental sustainability through their technologies and R&D capabilities (Morgera, 2009, Muchlinski, 2007) and their ability to implement better environmental standards. However, their current *modus operandi* contributes little to fostering environmental sustainability, as is clear from the above empirical evidence on the operations of Spanish MNEs in Latin America.

As a response to the socio-environmental challenges arising from industrial activities, corporate social responsibility (CSR) has become a key element for MNEs, although companies’ concerns for society can be traced back centuries (Carroll, 1999). In fact CSR is rooted in environmental responsibility initiatives within environmental management frameworks (Welford, 1998; Welford, Starkey, 2001). Today it is a very important subject in both professional and academic literature. It became a mainstream factor and gave rise to organizational changes due to the benefits and increasing competitive advantage it brings companies (Arjalies, Mundy, 2013).

There is a lack of consensus regarding the definition of CSR (Lindgreen, Swaen, 2010; Zaho et al., 2012). Broadly speaking it consists of voluntary initiatives, strategies and standards adopted by MNEs, including international instruments, national-based standards, certification schemes, mainstream financial indexes and tools, meetings and other initiatives that foster sustainable development through good business practices. Codes of conduct are just one of the instruments to be found among the above. In principle these CRS initiatives, strategies and standards are motivated by external pressure, mainly from society and socio-environmental NGOs, and are aimed at satisfying demands for better corporate behavior, transparency and disclosure in day-to-day company activities.

In this regard codes of conduct, which are essentially voluntary and non-binding, attempt to cover these issues in order to encourage more environmentally friendly behavior. These instruments have therefore gradually been integrated into day-to-day company operations, especially those supported by international organizations and international society such as the 1976 “OECD Guidelines for Multinational Enterprises” (OECD Guidelines), the 1999 “Global Compact”, the 2003 “UN Norms on the Responsibilities of Transnational Corporations and other Business Enterprises with Regard to Human Rights” (UN Norms) and the recent “Guiding Principles on Business and Human Rights: Implementing the United Nations ‘Protect, Respect and Remedy’ Framework” (Guiding Principles) adopted by the UN Human Rights Council in 2011.

The OECD Guidelines, which consist of non-binding principles and standards, include a chapter on the environment (Section VI). This provides general standards of environmental protection and a list of specific tools for corporate environmental accountability. These tools include environmental management systems (EMS), communication and stakeholder involvement, life-cycle assessment and environmental impact assessment (EIA), risk prevention and mitigation, continuous improvement of corporate environmental

performance, education and training of employees, and contribution to public policies. Companies are therefore expected to take environmental concerns into account in their business decision-making processes.

The Global Compact is considered to be the world's largest corporate citizenship initiative and is intended to promote good corporate practices through a variety of engagement mechanisms including learning, dialogue and projects. Three of its ten principles focus on the environment (Principles 7, 8 and 9). Global Compact Principle 7 is aimed at motivating companies to take a responsible, preventive and proactive stance as regards environmental challenges. Global Compact Principle 8 encourages MNEs to develop initiatives to promote and divulge socio-environmental responsibility. Global Compact Principle 9 inspires companies to develop and disseminate environmentally responsible technologies.

In 2003 the UN Norms constituted an advance in the sphere of international codes of conduct for business since they were the result of a formal UN consultation process that had already produced soft law in other fields. The Norms emphasized implementation and enforcement (Murphy, 2005). However, the lack of political endorsement by states forced them to be abandoned in 2005. "Most of the States expressed strong reservations, emphasizing their determination not to depart from the traditional framework of international law, which stresses the central and pivotal role of the state as a legal subject of public international law" (Miretski, Bachmann, 2012, p. 9). The UN Norms imposed obligations on MNEs in the area of environmental protection (Section G of the UN Norms). MNEs were expected to conduct their activities in accordance not only with the laws, practices and policies of the country in which they were operating but also with international agreements, principles and standards regarding environmental perseverance. They were also required to periodically assess the impact of their activities on the environment and human health, especially that of groups such as children, the elderly, women and indigenous peoples.

Finally, the Guiding Principles is a set of guidelines that operationalize the UN Framework (UNHRC, 2011) on the basis of three pillars: protect, respect and remedy. The first pillar involves the state's duty to protect against human rights abuses by third parties, including MNEs. The second involves corporate responsibility to respect human rights and implies a societal expectation that companies "do no harm" and exercise "due diligence" (Morgera, 2012). The third pillar involves access to remedy for victims of human rights abuses. The Guiding Principles make few references to the environment, although they acknowledge that environmental harm due to MNE activities impacts a significant number of human rights (UNHRC, 2008). However, under the Guiding Principles it should be understood that both states and companies must take proactive steps to prevent environmental damage (Carneiro et al., 2013). In this context, Pigrau and Jaria (2014) have defended the applicability of the Guiding Principles to activities that can adversely affect the environment. After analyzing several SRSG reports, they

concluded that environmental matters fall neutrally within the scope of the Guiding Principles.

4. CODES OF CONDUCT AND THEIR APPLICATION BY SPANISH MNEs

In line with all the above, Spanish MNEs have implemented voluntary CSR initiatives, strategies and standards so as to avoid negative effects in their commercial and economic relations and a negative public image caused by campaigns against the environmental impact of their activities in Latin America (Observatorio de RSC, 2010). Along with human capital, corporate reputation is a key factor in business because it generates many favorable consequences for the company (Hall, 1992). However, it is a fragile factor that takes time to create and can easily be damaged (Hall, 1993). Therefore companies have chosen to adopt and/or adhere to ethical codes, guidelines and principles such as codes of conduct that address environmental concerns and values. In this regard most companies have voluntarily adhered to and expressed their commitment to international codes of conduct such as the OECD Guidelines and Global Compact. At least 821 Spanish businesses from all sectors today participate in Global Compact, including the largest Spanish MNEs operating in Latin America.

These companies have also enacted their own internal codes of conduct expressing their commitment to environmental concerns. For example, Santander's "General Code of Conduct" stresses the company's responsibility to the preservation of the environment by respecting legal requirements. Regarding the financing of projects such as hydraulic and sanitation infrastructures, energy, forest resources and defence sectors, the General Code establishes that the company shall follow internal policies on social and environmental responsibility. Meanwhile Endesa's "Code of Ethics" states that the company undertakes to reduce its environmental footprint and the impact of its business activities on the landscape and to prevent risks to the population and the environment by upholding prevailing environmental regulations. In the same vein, Repsol's "Code of Ethics and Conduct for Employees" aims at minimizing any negative impact on the environment arising from the company activities. To achieve these goals, Repsol sponsors training in environmental protection for all its employees, especially those involved in the management and maintenance of the facilities and those who have direct contact with clients, stakeholders, suppliers and contractors. Telefonica's "Our Principles", Gas Natural Fenosa's "Code of Ethics", Iberdrola's "Code of Ethics" and BBVA's "Code of Ethics" follow the same line whereby the companies commit to reduce environmental impact by complying with standards established by environmental laws and regulations. Most internal codes of conduct point out that the scope of application for these instruments includes all corporate bodies, including subsidiaries in third countries.

MNEs can reap several potential benefits by adopting and adhering to codes of conduct. Firstly, it creates a public image of a socially and

environmentally responsible company. Secondly, codes have a positive effect on consumer purchasing habits (Öberseder et al., 2013) when they are used as a marketing strategy because a growing number of environmentally aware consumers are demanding more environmentally responsible products. A significant number of consumers buy green (environmentally friendly) products and services (Tinne, 2013), so if MNEs fully applied the environmental standards outlined in the codes of conduct, they could cover the now highly competitive green market. Thirdly, in terms of risk management, the costs incurred by being an environmentally friendly corporation are lower than those incurred by causing environmental damage, which can be extremely high if they impact on sales and/or investment or if the corporation is held liable for the damage caused (Perry-Kessaris, 2010).

Despite the existence of these codes of conduct, their impact on the behavior of Spanish MNEs in Latin America is insufficient. The cases mentioned above show that these instruments are weak and ineffective. Despite adopting these codes, large MNEs continue to have an impact on the environment. One of the main reasons for this is the lack of enforcement and monitoring mechanisms to ensure compliance (de Jonge 2011, pp. 26-27). Most of the codes do not go as far as to set up independent bodies to observe or monitor how they are applied. The effectiveness and benefits of these codes therefore rely on MNEs modifying their behavior in order to mitigate the negative impacts of their operations or their product on the population and/or the environment. Their ineffectiveness as regards the behavior of MNEs highlights the need for a more effective regulation of business activities both nationally and internationally in order to foster environmental sustainability.

5. CONCLUSIONS

Despite their ineffectiveness, codes of conduct may contribute to solving extreme situations. They could be the first step in the right direction toward promoting environmental sustainability insofar as they may improve the behavior of a company that previously had few or no standards at all. They may also be used to hold companies publicly to account if their practices contravene their principles and, if used inclusively and transparently, they may be seen as a basis for developing “best practice” and serve as platforms upon which binding regulations can later be developed (Abdul-Gafaru, 2009, p.61). However, the evidence shows that CSR in Latin America is a tool for Spanish MNEs to adapt effectively to the socioeconomic context of the region and thereby gain social legitimacy for their activities. The contribution of these companies to environmental sustainability in the area remains weak and insufficient. More effective, legally-binding regulations are required to achieve real environmental sustainability and prevent environmental abuses by MNEs in Latin America and the rest of the world.

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CONSUMER BEHAVIOUR AND ITS IMPACT ON THE COMPANY'S MARKET POSITION IN TERMS OF CORPORATE SOCIAL RESPONSIBILITY

JEL classification: M14, D1

Abstract

For many years in developing countries, including Poland, there was an argument that the economy is not mature enough to take the social and environmental issues into account, and companies must first of all fight for survival. However, economic situation stabilizing after the crisis (started in 2007) suggests that companies that want to gain a high position in the market should invest in innovative solutions and rethink the economic model to a more socially responsible one. In this situation, more common criticism of unethical behaviour, in particular criticism of destructive greed and short-sightedness of entrepreneurs should be considered as a positive phenomenon. An example of how far social norms lost their significance can be observed in the cases of Enron, Lehman Brothers, WorldCom and Arthur Andersen, and, in Poland, Amber Gold. These events led to a broad public discussion about moral issues, in particular about the qualifications of market actors' behaviour and consequences of these behaviours for consumers. Many entrepreneurs have recognized these principles, especially those embedded in consumer behaviour. This metamorphosis involves consumers considering other attributes of a product than just hedonistic ones. All benefits associated with the use of goods are no longer the main value for many consumers. Quite a few consumers are willing to pay more for goods, which are, for example, produced with respect for the environment. They pay more

attention to production which is harmless to the environment than to the one which creates a threat to human society. These avant-garde requirements combine the care for the environment with social sensitivity, and the lack of their respect may result in ostracism from consumers. These expectations caused that, over recent years, there has been an increased interest in the concept of socially responsible business. Therefore, effective communication is the key to overcoming a gap between openness of consumers to information on corporate social responsibility on the one hand, and their actual purchasing behaviour, on the other. The aim of this paper is to show that the future of any business depends on its customers who are increasingly interested in finding out how it behaves. This is a clear signal for conducting business activities that only socially responsible companies inspire consumer confidence. Therefore, it is vital to develop appropriate relations between consumers and business and to share the common values and norms which favour the formation of trust between them.

Key words: *corporate social responsibility, consumer, consumer behaviour*

1. INTRODUCTION

Consumption satisfies people's needs as well as serves important social functions. Its significance is emphasised by economics in particular. Defining consumption in terms of satisfying human needs, however, raises ethical and moral questions referring mainly to the evaluation of companies' behaviours and effects of the behaviours on consumers. The need for the analysis of these issues results from many reasons. One of the most important ones is modern environment which is characterized by large heterogeneity of social life patterns. At the same time, it should be assumed that all systems of values have the same right to exist provided that they do not have a harmful effect on other people. As a result, there is the necessity of searching for common domains and negotiating a collective position on such an important issue as the relationship between an enterprise and a consumer.

A consumer has not always been considered and treated by entrepreneurs as an equal business partner despite the fact that substantial potential and significance of consumers were already described by Adam Smith who claimed that "consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer" [Smith, 1956, p. 68]. While, against the Adam Smith's statement, a consumer in the 20th century was mainly perceived as a passive market participant playing the predetermined part of a recipient of goods and services [Maciejewski, 2012]. Coimbatore K. Prahaland

and Venkatram Ramaswamy even compared the 20th century consumer to an audience in a traditional theatre - an audience who buys a ticket for a show, sits on a particular seat at the auditorium and passively watches precisely defined roles played on stage by enterprises (suppliers, distributors, producers and sellers) [Prahaland, Ramaswamy, 2000, p. 79]. Not until the 1990s, did enterprises begin to perceive a consumer as an individual with whom mutual relations can be or even should be developed. The transformation of a consumer and their role are presented in Table 1.

Table 1

Evolution and transformation of a customer and a character of their interaction with an enterprise

	Customers as a passive audience			Customers as a active players
Time frame	1970s, early 1980s	Late 1980s and early 1990	1990s	Beyond 2000
Role of customer and nature of business exchange	Persuading predetermined groups of buyers.	Transacting with individual buyers.	Lifetime bonds with individual customers.	Customers as cocreators of value.
	Customers as seen as a passive buyers with a predetermined role of consumption.			Customers are part of the enhanced network; they cocreate and extract business value. They are collaborators, codevelopers and competitors.
Managerial mind-set	The customer is an average statistic; groups of buyers are predetermined by the company.	The customer is an individual statistic in a transaction.	The customer is a person; cultivate trust and relationships.	The customer is not only an individual but also part of an emergent social and cultural fabric.
Company's interaction with customers	Traditional market research and inquiries; products and services are created without much feedback.	Shift from selling to helping customers via help desks, call centers, and customers service programs; indentify	Providing for customers through observation of users; identify solutions from lead users, and reconfigure products and services based	Customers are codevelopers of personalized experiences. Companies and lead customers have joint rules in education, shaping expectation,

		problems from customers, then redesign products and services based on that feedback.	on deep understanding of customers.	and cocreating market acceptance for products and services.
Purpose and flow of communications	Gain access to and target predetermined groups of buyers. One-way communication.	Database marketing; two-way communication.	Relationship marketing; two-way communication and access.	Active dialogue with customers to shape expectations and create buzz. Multilevel access and communication.

Source: own work on the basis of C.K. Prahalad, V. Ramaswamy, Co-opting customer competence, Harvard Business Review, January-February 2000, p. 80.

The analysis of Table 1 shows that since the turn of the 20th and 21st centuries, a consumer began to be considered as an individual co-creating value, that is an individual who co-works, cooperates as well as - as Michael E. Porter [2006] observed - competes with an enterprise and demands a higher value, lower price or a wider range of service. A sign of this redefinition was that an enterprise started to perceive a customer as an important link in the management strategy included in CSR¹. The increased need for paying special attention to a consumer by entrepreneurs was also caused by increasing competition between business entities and broad access to information and communication thanks to which consumers have great possibilities of purchasing products practically all around the world. Therefore, bargaining power and awareness of a modern consumer increased. The awareness, on the other hand, caused consumers to demand an individual approach, flexibility, special treatment and a feeling of being the centre of attention. Access to education also had quite a large influence, what made consumers start to take ethical and moral issues related to running a business into account. It forced enterprises to engage considerably more in social issues. As it was emphasized, from consumers' point of view, these issues have become more essential and in many cases, they have a significant influence on customer buying decisions and loyalty.

In the article authors discuss consumers' role in the continued development of Corporate Social Responsibility (CSR) in Poland. To this, Polish consumers' attitudes about the various aspects of CSR are analyzed using both secondary sources of data and primary research with a representative random

¹ Corporate Social Responsibility (CSR).

sample of Polish adults (from Zachodniopomorskie Voivodeship and Wielkopolskie Voivodeship), which was conducted in March and April 2015.

2. RELATIONS BETWEEN ENTERPRISES AND CONSUMERS. EVALUATION FROM THE CSR POINT OF VIEW

Extensive transformations in enterprises' environment, which were signalled earlier, make them search for their own organizational structure and ethical management of relations with customers. The most important abilities are identifying changes in customer needs and responding to them quickly. The knowledge acquired this way gives an enterprise greater bargaining power and, above all, it is its important asset. This asset is mainly made up of useful information which others do not have.

Undoubtedly, a modern consumer is an individual who consciously and voluntarily participates in an act of trade. There is, however, some kind of paradox. On the one hand, a consumer has real power on the market and because of that they can dictate conditions. On the other hand, they are targets of business manipulation. The result of that is that despite an increasing significance of a consumer on the market, the relation between a consumer and business is still asymmetrical. The main reason for such a system is consumer dispersion which translates into the lack of informational, financial and organizational balance (between the sides). Not all consumers are also as competent as to understand technical details or legal aspects of transactions they make. It makes consumers economically weaker and usually less knowledgeable than enterprises. The issue has been addressed by the Polish Confederation Lewiatan which indicates that in order to prevent the lack of balance in relations between a consumer and an enterprise, good practices based on honest and transparent relations between these entities should be implemented [Lewiatan, 2010]. Enterprises, which, in particular, want to ensure that they achieve consumer loyalty and be seen as socially responsible, should focus on honest practices in product and service marketing, fair terms and conditions in agreements and objective and reliable information provided for consumers. Within the scope of these activities, it is also important to take up market education, engage in consumer health and safety, take care of service quality and deal with complaints fairly. Figure 1 presents the map of modern corporate responsibility towards consumers.

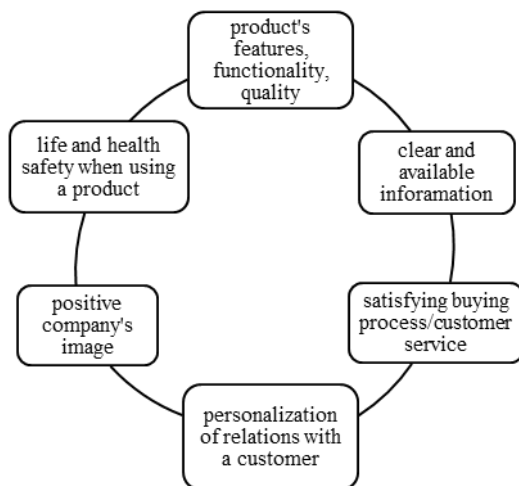


Figure 1 The map of corporate responsibility towards consumers in CSR.

Source: own work

Enterprises which follow corporate social responsibility and meet objectives specified in Figure 1 will, above all, increase trust, satisfaction and an extent to which consumers identify with them. The confirmation of this thesis is a statement by Stephen Young that the final success in business is, first of all, customer satisfaction [Young, 2005, p. 90]. The truth of the opinion is reflected in many research findings. For example, Xueming Luo and C.B. Bhattacharya measured an influence of socially responsible initiatives undertaken by enterprises on consumer reactions. After having analysed a large number of enterprises, the authors proved that corporate social and environmental responsibility together with innovation and quality make customers feel connected with an enterprise, their satisfaction increases and this, on the other hand, translates into an increase in market value of an enterprise (measured by Tobin's q ratio) and a profit margin [Luo, Bhattacharya, 2006, pp. 1-18]. However, when it comes to enterprises which are not innovative, the opposite relation was proved - CSR initiatives decrease customer satisfaction which in turn contributes to a decrease in market value of an enterprise. Thus, consumers expect enterprises to maintain high standards and introduce innovations which will contribute to an increase in attractiveness of an offer. Satisfying these expectations by an enterprise can then translate into achieving better financial results and maintaining competitive advantage on the market.

However, the research showing a positive consumer attitude towards the CSR idea and significance quite often refers mainly to attitudes, opinions and beliefs declared by customers and not to their actual behaviours [Karaszewski, Karwacka, Paluszek. (eds), 2011, p. 196]. Due to that, more and more often in their analyses, many researchers of the issue emphasize the difference between an

interest in enterprise activities in the sphere of CSR declared by consumers and their actual behaviour while shopping [Auger, Devinney, 2007, p. 361-383; Fliess, Hyung-Jong, Dubreuil, Agatiello, 2007, p. 55; D'Astous, Legendre, 2009, pp. 255-268]. The main reasons for a gap between consumer declarations and actual buying behaviour is presented in Table 2.

Table 2

Reasons determining low customer engagement in socially responsible consumption

Rational economically-based arguments	<ul style="list-style-type: none"> - consumers are not willing to or do not have financial means to pay more for 'socially responsible' products, - in their opinion, costs are higher than gained benefits, - moral and ethical aspirations are less important than economic development of their countries (e.g. since our textile industry also needs help, why should we help employees in China?);
No belief in effectiveness	<ul style="list-style-type: none"> - some consumers feel that there is no chance that their individual buying decisions may influence policies of enterprises and their business practices, - some of them believe that it is mainly governments, enterprises and media that should play a leading part in promoting socially responsible behaviours, thus they do not behave according to declared preferences expecting that someone else should handle and will handle this problem;
No information - no trust	<ul style="list-style-type: none"> - consumers have doubts about the quality of socially responsible products, evaluating them as worse, weaker and less cost-efficient than conventional products, - consumers do not have information necessary to make a buying decision based on the CSR criteria;
Other moral priorities	<ul style="list-style-type: none"> - some consumers are not interested in ethical problems, e.g. conditions in which goods they buy are produced, but, at the same time, they do not want to admit such indifference when taking part in research, - while shopping, other motives are important (quality/brand/price);
Low availability	<ul style="list-style-type: none"> - since socially responsible products are not yet widely available, consumers do not often have enough enthusiasm to buy them in specialized shops.

Source: own work on the basis of Karaszewski, Karwacka, Paluszek (eds), 2011, p. 196 – 197 and Fliess, Hyung-Jong, Dubreuil, Agatiello, 2007.

Analysing the motives for the consumer behaviour presented in Table 2, it can be observed that apart from these strictly economic ones, one of important reasons for the lack of relation between the declared and actual demand for goods and services of socially responsible enterprises is the lack of effective communication. Information about products and services is either insufficient or is not provided effectively enough as to enable consumers to take conscious

buying decisions, taking such criteria as socially responsible production into account.

To sum up, relations between enterprises and consumers and communication between these entities within CSR in particular, can be only effective when the following conditions are met:

- information will be adjusted to consumer needs,
- consumers will trust a source of information,
- consumers will not be confused due to a large amount of information,
- consumers will have a possibility of comparing companies' activities within CSR and, on the basis of that, take specific buying decisions [Karaszewski, Karwacka, Paluszek (eds.), 2011, p. 197].

3. CSR AND CONSUMER INTENTIONALTY IN TERMS OF THE EMPIRICAL RESEARCH IN THE SELECTED REGIONS OF THE WORLD AND IN POLAND

In terms of modern consumption, social reality is variously defined and described, and among others, a term of transactional society is used². Writing about a transactional society, George Soros states that it is anything but a community combined with accepted social values which would force to prefer its interests over egoistic interests of individuals. It is a society in which everyone has to look after one's own interests and the care of others is not a constraint on activities or constraint on mobility [Soros, 1999, p. 113].

According to many theoreticians and practitioners adopting George Soros' point of view, a market society was established and its organizational principle was competition forcing individuals and groups to compete constantly for their particular interests. As a result, the created reality, where the market has dominated society, culture and people, favours the development of hedonism and consumerism in society, thus weakening virtues that created it and, without which, it is endangered. It is difficult to not agree with these statements, especially in the context of the last global crisis which began at the end of 2007/beginning of 2008. Nevertheless, it can be observed that the necessity of increasing clarity of business activities and their consequences is more and more often verbalized, including the necessity of eliminating corruption and unethical conduct in business as well as using good practices in relations with consumers. The research findings presented in Table 3 and Table 4 exemplify these tendencies.

² Transactional analysis - a psychological concept of human relations created by Eric Berne and based on the idea to distinguish three Selves co-existing in behaviours and feelings.

Table 3

Consumers on CSR

Do you agree that:	Poland	USA	UK	France
	(percentage)			
over the last few months ,you have actively searched for information about reputation or ethical principles of any company	29	37	38	53
over the last few years, you have become more interested in rules of corporate conduct and brand images	50	64	53	51
as a consumer, you feel responsible for punishing unethical companies by not buying their products	73	80	69	81
enterprises bear the same responsibility for introducing positive social changes as countries governments	66	70	68	79
it is very important that a company should pursue something else than just a profit	77	86	81	89
corporations do not sufficiently share a profit with employees	36	59	52	75
corporations do not sufficiently respect rights and needs of their employees	27	48	39	68
over the last five years, corporations have raised their standards	70	39	48	58
over the last five years, corporations have worked more actively for charity	33	29	29	8
it is good for companies to make their socially responsible activities or charitable work public	84	73	70	76
in the future, the greatest success and profits will be gained by enterprises which use the theory of sustainable development in practice	75	60	73	79
ethics is an extremely important factor of the best interests of a company	91	91	76	91

Source: own work on the basis of *Przyszłość marki korporacyjnej – raport 2010*, IMAS. The research conducted in 2008 on a representative group of the Polish by IMAS International sp. z o.o., Instytut Badania Rynku i Opinii Społecznej in Wrocław, commissioned by EURO RSCG Sensors http://issuu.com/eurorscgsensors/docs/know_przysz_o_marki_korporacyjnej

Table 4

Customers willing to pay extra for products and services from companies committed to positive social and environmental impact in 2014 and 2011.

Region	2014	Percentage point change from 2011
Global average	55%	+ 10 (2011 - 45%)
Asia-Pacific	64%	+ 9 (2011 - 55%)
Latin America	63%	+ 13 (2011 - 50%)
Middle East, Africa	63%	+ 10 (2011 - 53%)
North America	42%	+ 7 (2011 - 35%)
Europe	40%	+ 8 (2011 - 32%)

Source: own work on the basis of *Doing well by doing good*, NIELSEN, June 2014.

The research findings presented in Table 3 and Table 4 indicate that consumers are conscious of social benefits resulting from adopting ideas of corporate social responsibility and expect their implementation by enterprises. Furthermore, the data in Table 4 implies that consumers in Poland as well as in the USA, UK and France more and more actively search for information about reputation and obedience to ethical principles by enterprises. In Poland, there is approximately 30% of such consumers. It should be also observed that in Poland as well as in the aforementioned countries, the percentage of people who for a few years have been intensely interested in rules of corporate conduct is very similar. 66% of the respondents in Poland think that enterprises bear the same responsibility for introducing positive social changes as the government. This opinion is shared by the majority of respondents in the UK, France and the USA. 80% of respondents in the USA and France, 69% in the UK and 73% in Poland are convinced that their duty is to stigmatize enterprises working in unethical way by boycotting their products. 8 out of 10 respondents think that enterprises should not take care of their financial results only. 36% of respondents in Poland (52% in the UK, 59% in the USA and as many as 75% in France) state that enterprises do not sufficiently share a profit with employees. Likewise, approximately 30% of the Polish, British and more than 68% of the French think that enterprises do not do a lot in terms of respecting rights and needs of their employees. 75% of the responding consumers from the analysed countries think that in the future, the greatest success and profits will be gained by enterprises which use the theory of sustainable development in practice. At the same time, more than 90% of the respondents from Poland as well as the USA and France think that ethics is an extremely important factor in enterprise functioning.

In Poland, quite a big part of the society does not still reflect on ethical and moral aspects in the relation between a business entity and a consumer. In particular, a lot of people of the older generation brought up in the socialist tradition do not especially think about these issues. Education of this part of the

society is quite difficult because most of them are retired and dispersed people, reluctant to any proposed ideas. Due to that, the authors decided that the research would be conducted among young consumers, that is a social group which knows the mechanisms of modern economy because it was brought up in democracy and liberal market economy, and which seems to be more certain about its position and consumer rights. The exploration was conducted by means of a questionnaire. It was carried out in March and April 2015 in Zachodniopomorskie Voivodeship and Wielkopolskie Voivodeship in Poland. The research involved 229 people aged 19-35. Among them, there were 56% of women (that is 128 people) and 44% of men (101 people). Figure 2 shows the structure of the responding consumers.

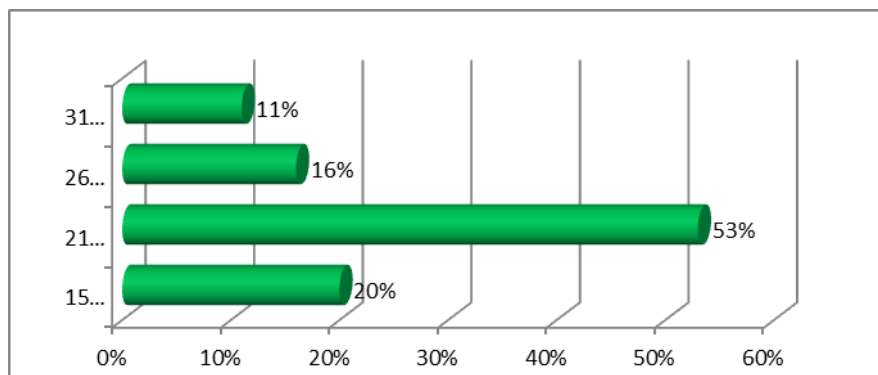


Figure 2 The structure of the responding consumers in Poland according to age in Zachodniopomorskie and Wielkopolskie Voivodeship in 2015

Source: own work on the basis of the questionnaire

From Figure 3, it appears that over a half of the respondents were people aged 21-25, whereas the youngest people constituted 20%.

The findings of the analyses on the basis of the respondents' answers are presented in Tables 5-10. The questions concerned a motive for choosing goods and services while shopping, including, in particular, such issues as: obeying ethical principles by an enterprise, honesty towards consumers, supporting local community and carrying out activities for environment protection.

Table 5

Is and how important is while buying a product or service meeting objectives of CSR by an enterprise?

very important	4%
important	52%
quite important	42%
not very important	1%
unimportant	1%

Source: own work on the basis of the questionnaire.

Table 6

Are products and services of enterprises, which take care of ethics, environment and undertake activities for society, of better quality than those of enterprises that do not obey these rules?

Definitely yes	3%
Rather yes	76%
Rather no	21%
Definitely no	0%

Source: own work on the basis of the questionnaire.

Table 7

Do you trust enterprises declaring that they implement CSR rules selflessly?

	Yes	No	I don't know
Do you check production conditions of products you buy?	84%	7%	9%
Are you willing to pay more for products of socially and environmentally responsible enterprises without checking the conditions?	62%	29%	9%
Do you trust all declarations made by enterprises about their activities for society and the natural environment?	65%	24%	11%

Source: own work on the basis of the questionnaire.

Table 8

What are reasons for enterprises to engage in activities of corporate social responsibility?

improving image	71%
building customer loyalty	62%
building employees' loyalty	34%
increasing profits	36%
encouraging people (often by using manipulation methods) to buy their goods and services	52%

Source: own work on the basis of the questionnaire.

Table 9

Assess objectively (express in percentage) your knowledge of activities undertaken by enterprises within CSR.

very big	0%
big	19%
small	57%
very small	21%
no	3%

Source: own work on the basis of the questionnaire.

Table 10

Have you and how often over the last 12 months:

	Always	Often	Sometimes	Rarely	Never	I don't know
actively searched for information on enterprises working ethically?	5%	7%	13%	56%	19%	0%
resigned from buying a product of an enterprise which activities are unethical, that is they harm the environment or exploit employees/break human rights?	4%	12%	47%	32%	7%	0%
recommended products of an enterprise to your friends/family because of its engagement in	5%	36%	27%	22%	10%	0%

environment protection or a local community and obedience to ethical principles?						
chosen a product because of the fact that it was produced ecologically, that is without negative impact on environment and health, as well as with respect for employees' rights?	6%	16%	41%	23%	14%	0%
bought products which were not tested on animals?	12%	51%	17%	5%	2%	13%
bought products made of recyclable waste?	4%	0%	47%	22%		27%
bought products which have the Fair Trade certification?	0%	0%	21%	11%	3%	65%
bought energy saving household appliances?	91%	6%	3%	0%	0%	0%
bought non-GMO products?	7%	6%	22%	41%	3%	21%
bought other, e.g. free-range eggs, meat without antibiotics or other chemical substances, etc.?	24%	16%	17%	34%	0%	9%

Source: own work on the basis of the questionnaire.

Implications of the research indicate that the ecological and ethical awareness of young Polish consumers increases. Acceptation and understanding of CSR ideas also increase. These trends are shown by the research findings which also prove that:

- More than three quarters of the responding young consumers observe a positive relation between a product quality and meeting objectives of corporate social responsibility by an enterprise.
- The majority of the responding young consumers is interested in production conditions of goods they buy, e.g. in materials used in production and their harmfulness, exploiting children in production, experiments not done on animals,
- Almost a half of the respondents declared that can resign from buying a product of an enterprise which works unethically, that is it exploits employees, breaks human rights and harms the natural environment.
- The majority of respondents chooses energy saving products.

However, it is alarming that although young consumers understand the importance of business entities activities within corporate social responsibility, more than a third of the respondents do not trust declarations made by enterprises

about their activities for society and the natural environment, or they do not know what to think about such declarations. According to the respondents, the main reasons for enterprises to engage in activities of CSR are, among others: improving image (71%) and building customer loyalty (62%). It should be also observed that more than a half of the respondents consider CSR to be a manipulation tool which aim is to use and provide true and false information regularly in order to achieve customers and the whole social groups.

4. CONCLUSIONS

The young Polish consumers' distrust of credibility of intentions to implement social responsibility of enterprises is not unjustified. In Poland, for years, large enterprises and international corporations have done a lot to be considered as socially responsible since they are the subject of a thorough observation and evaluation of both consumers and non-governmental organizations. Therefore, voluntary initiatives, which benefit, among others the natural environment, a local community and employees, are included in the management strategy of almost every large enterprise. Polish micro-, small and middle-sized enterprises do not properly value the significance of corporate social responsibility yet. They mainly focus on meeting short-term market objectives without the further strategic vision. The reason for being reluctant is very often not understanding the corporate social responsibility idea and identifying it with philanthropic activities. Nevertheless, every year, however slowly, it can be observed that awareness and understanding of the CSR concept among micro-, small and middle-sized enterprises increase. More and more entrepreneurs running a business realize that a moral or even axiological character of the relation between an enterprise and a consumer requires maintaining such a system which would not establish a dominant position of one of the sides. The idea is that in a system between an enterprise and a consumer, there is a balance of influence, credibility and honesty.

As it was emphasized at the beginning of the article, more and more enterprises observe changes in consumer attitudes, especially these resulting from considering by consumers other attributes of a product than just hedonistic ones. Thus, it is positive that enterprises take it as a clear signal that socially responsible enterprises inspire consumer trust and their competitiveness depends on developing and maintaining strong relations with consumers.

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CORPORATE SOCIAL RESPONSIBILITY IN POLAND – THEORY AND PRACTICE

JEL classification: M14

Abstract

In the last decade Corporate Social Responsibility (CSR) has become an idea playing an increasingly important role in the activity of various enterprises. To an extent the concept is a response to new requirements faced by the enterprises. They consist mostly of a close cooperation between the enterprise and its environment as well as complying with commonly accepted norms and rules. The aim of the article is to establish a multidirectional evaluation of various CSR solutions in Poland. The intention of the authors is to point out the importance of complying with the CSR premises as well as many benefits coming from non-particularistic and non-individualist approach to the issues of social responsibility. Along with necessary theoretical introduction indispensable in case of a research paper the text also presents these issues basing on economic practice.

Key words: business ethics, CSR, social economics

1. INTRODUCTION

The purpose of this article is to propose an omnidirectional rating solution in the area of corporate social responsibility (CSR) in Poland. The intention of the authors is also to indicate the importance of a company's compliance with the principles contained in the CSR and the benefits which can

be achieved when actions related to corporate social responsibility transcend individual goals and short-time gains. Along the theoretical divagations - an inherent part of any scientific study – the article presents solutions related to business practice.

CSR has been receiving lots of attention from various backgrounds of researchers worldwide [Ismail, 2011.] CSR is of interest to ethicists, psychologists, sociologists, economists, as well as management and therefore has an interdisciplinary character. There are many different ways that the term corporate social responsibility has been applied and defined in the literature. For example B. Rok defined CRS as “responsible business is a strategic and long-term approach, based on the principles of social dialogue and the search for solutions beneficial to all” [Rok, 2004, p.18.]. But M. Friedman underlined that CRS is „carrying out the responsibilities towards the enterprise’s shareholders, i.e. its owners, striving at the maximization of the company’s market value” [Friedman, 1997, pp. 186 – 205.].

The definitions given above emphasize various aspects of activities undertaken in this area. Even though CSR has been studied for many years, the researchers have not still developed a common theory. However one can find a common set of core principles, namely:

- implementation of CSR is voluntary,
- in social responsibility balance must be established among three dimensions: economic, social and environmental,
- CSR is the continuing commitment by business to behave ethically,
- activities undertaken in the framework of CSR are addressed to a wide group of stakeholders.

Corporate social responsibility focuses on building relationships in support of all stakeholders involved in business projects. It is a concept that in addition to create positive relationships between stakeholders includes human resources, formal and legal conditions and environmental protection on a voluntary basis. Specifying corporate social responsibility can be defined as companies focus on seven important CSR areas: (1) corporate governance, (2) employee behavior, (3) human rights, (4) integrity in customer relations, (5) the environment, (6) business integrity and (7) social commitment.

The past decade witnessed lots of studies referring to the issues of corporate social responsibility. Since then, the benefits of combining an enterprise’s social commitment and its financial performance, its market value, satisfaction and efficiency of employees, their professional development, efficiency of the recruitment process, innovation, customer loyalty, relationships with financial institutions and investors have been noted ever more clearly.

K. Rajandran K. and F. Taib considered that “CSR is not legislated but the government and stock exchange influences the corporate context, where CSR is expected and multiple stakeholders (e.g. customers, employees, shareholders) may expect corporations to perform CSR. Corporations are targeted because corporations are a prominent business structure. They also have a larger social impact and resources to manage this impact” [Rajandran & Taib, 2014, p. 144.].

These considerations allow concluding that the fundamental reason for the increased interest in corporate social responsibility is a crisis of confidence in business. Business, or to put it differently: economic activity, facing numerous irregularities such as fraud and corruption, has never had a strong moral position. In recent years, lack of belief in ethical business grew even stronger as a result of the emergence of a number of pathological phenomena, especially in the financial markets caused by the crisis, which had started in 2007 in the United States. A relatively significant weakening of the nation-state and the growth of influence of corporations has pushed that process even further.

2. BASIC PRINCIPLES OF CORPORATE SOCIAL RESPONSIBILITY

The concept of CSR has become an absorbing trend not only within the discipline of ethics but also in the business management theory. T. Dołęgowski [Dołęgowski, 2011, p. 125] contends "the concept of corporate social responsibility gradually emancipates itself from the traditionally understood business ethics and starts a sort of life of its own – as a part of modern management theory. For some, CSR has even become the next modern paradigm and a school of thought within the strategic management and the search for sources of competitive advantage. But for the others, for example L. Tetřevová and J. Svědik “the corporate social responsibility represents a superstructure of the corporate statutory responsibility, where the firm management and staff behave the way they not only fulfil the corporate economic mission itself, but they also facilitate meeting the intentions and objectives of all stakeholders” [Tetřevová & Svědik, 2012. p.117.].

T. Culík, G. Končítiková and P. Staňková proved that “CSR as a management tool is not only a voluntary approach but mainly, it is a strategy” [Culík et al., 2014. p. 230]. It is assumed that in order to define a company as involved in the idea of CSR, it must comply with such requirements as: investment in human resources and environment protection, maintenance of a legal and ethical relationship with the corporate environment and thorough information of the company’s activities.

Human rights and labor rights are important foundations for responsible business. Therefore, one of the most important principles of CSR is an investment in human resources in order to guarantee basic human rights such as: the right to free speech, freedom of assembly, the right to education, regardless of race,

gender, sexual orientation, religion, ethnicity, social, national or political convictions. The lesson here is that the business of an enterprise should be in accordance with the principles of respect for the rights of employees, through the development of models and methods of implementation of personnel policies and by developing pro-ethical management strategy, which should include:

- promotion of higher education among the future managers,
- ethics-based management education of the management staff members,
- organizing the standards forming ethical principles in the form of codes of ethics,
- introducing the employees to clear ethical system promoting an ethical conduct.

It is also important for companies to create programs for the employees, referred to as an investment in employee development. These programs are aimed at increasing the professionalism and expertise of the staff through courses and training, integration programs, programs for equal opportunities (flexible forms of employment, equal opportunities for people over 45 years of age, people with disabilities).

The next objective of CSR is the improvement of management systems aimed at the development of mutually beneficial relationships with all stakeholders. Not so long ago Milton Friedman was trying to prove that the social duty of business is to maximize profit at all cost - of course within the limits of the law and basic moral principles.

Environmental management includes responsibility for the environment in which it operates. Business decisions consistent with this assumption should be designed to diminish the negative impact of production processes on the environment and, at the same time, introduce environmental protection programs. The issue of the relationship between the socio-economic and environmental aspects of business activities can be broadly divided into two approaches. The first one is a classic approach setting the goal of environmental regulations to increase social welfare by reducing external costs, the underline assumption being that regulations are designed, through internationalization of external costs, to alleviate market failure, which entails additional costs [Schaltegger & Wagner, 2006, p. 9.]. That link seems to be particularly important for those industries where the impact on the environment during the production process entails more costs than the added value.

According to some authors the problem of norms and the rules of human behavior in economy framed by ethical codes has become another specific and expanding study area – situated in a kind of frontier land between CSR and business ethics. In this regard a symptomatic quarrel on the ground of ethics understood as moral philosophy is a conflict between the so-called codex and the non-codex option, the latter being additionally divided into moderates and

radicals. The moderates stress the importance of constructing a set of norms and rules for certain professions in a balanced, generally based on general ethics, such as Decalogue or the Human Rights. The radicals opt for constructing analytical directories of moral norms, highly detailed and targeting specific groups. Supporters of ethics without a code emphasize the complexity and the unique circumstances of a human evolution towards becoming a moral subject.

The above presented fundamental features of CSR are the backbone of this concept. It should be noted that CSR is a new tool in the theory of management and the theory of sustainable development perceived as a progressive field in economic policy.

3. CSR IN THE POLISH BUSINESS - PRACTICAL ASPECTS

Polish enterprises and in particular micro, small and medium enterprises still do not fully appreciate the importance of CSR. They focus mainly on achieving short-term market goals without a long-term strategic vision. To a lesser extent this also applies to large enterprises. The situation is evident in a research conducted by PwC consulting firm on 287 Polish companies. The research shows that 229 large and medium companies (80 percent) have optimized their financial performance and in effect they were ranked among top 500 list of "Polityka" and "Rzeczpospolita" journals [Polityka, 2012, p. 97.]. The most active in the research were the companies active in the fields listed in table 1.

Table 1.

Percentage indicator of businesses participating in the survey concerning CSR engagement in 2011

Trade	Percentage of surveyed companies
Power and Heat Engineering	43
Chemical	39
Wood and paper	35
Automotive	31
Financial	35

Source: *Pięćsetka Polityki* (2012). [in:] *Polityka*, Issue 17/18 (2856),. p. 97.

As already mentioned, the discussion on CSR is not entirely theoretical. The research concerning the main areas of CSR implies practical consequences. It appears that the most important points in terms of consumers and the market proved to be:

- actions in favor of consumers and the market which was declared by 88 percent companies surveyed, with the vast majority of companies - 93

percent - focused on the implementation of safety standards and the quality of the goods and services, compared to 92 percent focusing on standards of customer service.

- promoting sustainable consumption, consisting of informed purchasing decisions declared by 24 percent companies,
- attention paid to equal customers access to goods and services declared by 42 percent of the surveyed companies.

Another important area in the process of CSR-building is the work for local communities, done by 85 percent of the surveyed companies. These activities were in particular: cooperation with educational, scientific and cultural institutions and organization of internships and apprenticeships. Having a codified set of ethical rules was however declared by 70 percent of the companies [Polityka, 2012, p. 97.].

Despite the strong concern for the stakeholders, the enterprises attribute a crucial importance to the development of the members of the staff, which is proven by the fact that:

- a formalized system of employee evaluation and remuneration on the basis of the results was created by 80 percent of the surveyed companies,
- evaluation system for all employees, not just special groups, such as managers is implemented by 84 percent of the surveyed companies.

The qualitative changes taking place in the Polish business are a specifically optimistic area. These changes are to be observed in the field of strategic CSR management. It turns out that among the 230 economic operators who filled out the survey (it is significant that most of these companies were also in the top 500 of "Polityka" and top 500 of "Rzeczpospolita"), 67 percent of them systematically identifies priorities related to conducting business in accordance with the principles of CSR, while:

- 88 percent of the cases is a part of another type of strategic documents such as HR (HR policy – personnel policy, human resources policy),
- 46 percent is a part of the business strategy,
- 39 percent prepares an independent CSR strategy.

Moreover, about 50 percent of surveyed companies employ people who coordinate the tasks of CSR. More often than not they are employed in communication and PR departments - about 50 percent - and administrative offices - 16 percent, but rarely in the structure of strategic groups - 3 percent [Polityka, 2012, p. 97.]. The solutions used the most frequently by the Polish companies, within the guidelines of CSR, have been presented in the table 2.

Table 2.

Solutions used by companies as part of CSR principles

Solutions used by companies	Percentage of surveyed companies
Actions undertaken in the interest of customers, such as safety and quality of goods and services	88
Activities for local communities	85
Internal formal employee evaluation system	80
Written code of business conduct	60
Specific priorities for the company associated with CSR	67
Implemented environment protection management system	62
Report showing business management and implementation of corporate strategy with regard to socially responsible activities	60
A position created specifically in order to coordinate CSR requirements	50

Source: own study.

The results achieved both by own study and also in effect of an analysis of the results obtained by the consulting firm PwC are quite similar. However, it seems that it would be too optimistic and too rash to believe that CSR is already a standard in Polish enterprises. It is proven by the fact that less than 40 percent respondents replied to the questionnaire on CSR, and only the 100 biggest companies created a management structure, implemented ethical codes and informed the environment of their activities in the field of CSR in a conscious and strategic manner. These enterprises may therefore be described as guides defining the future directions of CSR [Polityka, 2012, p. 97].

Naturally, the presented results of the study conducted by PwC are characterized by a high degree of generalization and therefore are primarily a basis for further discussion and inquiry. It is worth considering why despite a lively debate on CSR in Poland as well as on the European, international and global level, in Poland, the concept is underestimated or even ignored. It is worth mentioning that what is at stake is not a theoretical finesse, but a fundamental question about the reasons for such a matter of facts. There are lots of reasons, the crucial ones being the assumption that:

- enterprises should focus solely on creating profits;
- every company should focus solely on creating profits;

- social involvement of business is not able to really change the world for the better, companies do not have experience in managing social programs;
- business should not be concerned with the public institutions responsible for motivating, implementation, observation and monitoring of social and environmental standards.

It also appears that an important cause of a poor interest in this concept, in addition to the reasons mentioned above, is lack of understanding of its principles among the majority of Polish entrepreneurs and, above all, the belief that compliance with CSR does not pay off. As a result, despite the fact that CSR in Poland is ever more broadly discussed, in the economic reality only a few companies decide to implement complex CSR strategies. A vast majority of them perceives CSR as a part of social engagement, all too often narrowed down to one-time social or philanthropy acts or employee voluntary work. This approach of Polish companies to CSR is far from the modern understanding of CSR promoted by the EU, which expects corporations to consciously and continuously comply with human rights and to prevent their violation, as well as to maintain the standards of fair trade, environmental protection, business reliability and social care.

At the end of this section, it is also worth adding that in Poland, a great number of institutions and organizations involved in promoting CSR and providing consultation in this area have been created. These include, amongst others, Institute for Responsible Business, Business Ethics Centre - CEBI, Centre CSR.pl, UNDP - Global Compact Responsible Business Forum, the Academy for Development of Philanthropy in Poland. There is however no subject able to coordinate, issue certificates and prepare expertise on the relations between the international CSR standards and CSR in Polish business.

4. DYSFUNCTION AND TRENDS RELATED TO THE IMPLEMENTATION OF CSR

Practical use of the idea of a social market economy in Poland will be shown in the future. As often mentioned before in this article, in Poland the implementation of the idea has still been in progress. However, Nordic countries can be taken as positive examples because there, CSR is advanced and based mostly on the idea of sustainable development as well as the following points:

- the concept of the economy serving the society,
- inculcating environmental awareness at the individual and enterprise level,
- state policy supporting the idea of CSR,

- construction of infrastructure serving to create awareness promotion of CSR,
- honesty and competence of the government officials,
- efficiently functioning non-governmental organizations,
- responsible and reliable media promoting and supporting ethically acting companies.

Practice shows that the Nordic countries which have long been acting based on the social model of the economy did not suffer as much as those of the neo-liberal stance. But according to E. Mączyńska, today this model requires adapting to modern global economy. Ordoliberalism has been established before World War II, and at that time the globalization has not yet achieved the level known today. Additionally the model of national economies was dominant and unburdened by the hypertrophy of the financial sector [Mączyńska, 2011, p.62.].

Therefore the main issue now is to consider the determinant of an optimized engagement of the Polish state in the concept of CSR. Even more so since the requirement for a critical reflection of the politicians concerning the economy nowadays is necessary and obvious. This requirement derives not only from the need to create the conditions for developing the concept of CSR and the applicable standards and regulations in this area, but from something much more substantial, namely the need to reflect upon the meaning of the axiological domain in the course of building awareness, market order, and finally a competitive advantage of the state.

In addition to the issues mentioned above, there is also a very important problem which can be described as central, namely the social costs associated with the equitable allocation of factors of production. This problem also applies to the justification of these costs. Introducing analysis involving institutional sphere along the narrowly conceived professional one seems to be another necessary measure aiming to present costs and benefits resulting from compliance with CSR in Poland. Overall the general costs of a specific operation should be compared to its cumulated benefits in order to assess CSR as effective and whether the cumulated benefits are greater than the costs.

A .Kocmanová, J. Hornungová and M. Dočekalová underlined that “the relationship between the social and economic performance was also proven to be positive, which means that social involvement had a positive impact on the economic performance of the company” [Kocmanová et al., 2014. P.171.].

The considerations presented above clearly indicate the need for a paradigm shift in the economy towards the social economy and changes in the state institutions’ approach to these issues. The need for this has been forced most of all by the global crisis, which resulted in the fact that the reputation of transnational corporations, and especially the financial sector as well as of the public institutions has suffered. As a result, both companies as well as state

institutions are quite commonly seen as thriving at the expense of the wider community.

5. CONCLUSIONS

The economy, regardless of the fact that it features from other social sciences, a high degree of formal-deductive modeling in view of the essence of management process, is a social science. In recent years, this aspect has been more and more often emphasized in economists' discussions. In these debates, plenty of space has been pointed out to the social aspects of the economy but mainly economics associations with socio-economic reality and empirical evidence of cohesion.

The degree of impact intensity of enterprises at such basic questions as: environment, ethics, responsibility to employees and stakeholders is a special subject of discussion. Unfortunately, these issues both by the Polish society as well as companies are not sufficiently recognized and appreciated. Therefore, the implementation of the CSR concept should be considered as a good investment and a source of innovations and future revenues. Moreover, it is also an important and necessary task both for State institutions, non-governmental organizations and lectures at every level of education, but not only as costs for entrepreneurs. This requires, however, creation a professional infrastructure. That is why this infrastructure should consist of the following key elements:

- regulations clearly defined and constantly being improved,
- trainings in CSR in business, particularly promotion of education in the field of CSR,
- promotion of CSR in business in mass media,
- creation certificates and inspiring traders to obtain them,
- carrying out audits in business units and reports to the extent enabling firms to this idea,
- promotion of ethical behavior by highlighting good cases,
- implementation of European standards from the scope of the environmental protection in business entities,
- the personal treatment of employees,
- implementation of the codes of ethical business well drafted and continually supplemented by all employees.

Moreover, the infrastructure of CSR should occur at all levels of business activities. It means on the level: micro – business activities of people and entrepreneurs; meso - activities of chambers of commerce or regional

organizations; macro – economic system, and so the country or of the European Economic Community; global - an economy on a global scale.

Consistent implementation of the assumptions included in the infrastructure could allow achieving the following socio-economic objectives:

- socially responsible companies will be a kind of support for public sector in the field of problems regarding socially excluded persons – alternative form of social assistance,
- socially responsible companies will be identified with a support idea (support and help for the public), and not as entities absolutely oriented into generating economic benefits,
- socially responsible companies will foster for the development of civic awareness, a basic element of developed democracy,
- socially responsible companies will be able to become initiators in making challenges to surrounding problems, particularly in the local and regional dimension,
- through the action of socially responsible companies fuller use of the resource and the capacity of human capital will become possible,
- through the action of socially responsible companies the principle of humanism finds fuller dimension.

Adopting by the business companies solutions included in the idea of CSR, even partial, will increase socio-economic stability and will reduce the risk of social conflict.

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ENTREPRENEURSHIP

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SOCIAL ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

JEL classification: L31

Abstract

The time in which we currently live and will continue to live is a time of changes, which are comprehensive, deep and quick. They occur in almost all spheres and areas of human activity and life. Regardless of their causes, they are all structural changes whose consequences are primarily economic in their nature. The last three decades have been characterized by a rather significant increase in entrepreneurial activities, which is why they are often referred to as "the age of entrepreneurship", "entrepreneurial revolution" and "entrepreneurial renaissance". Enthusiasm towards the role of entrepreneurship in the economic development has had an impact on the development of social entrepreneurship in the last few decades. Thus, the new entrepreneurial culture has also spread to the social sector. Increasingly higher expectations are being set on social entrepreneurship in terms of addressing the needs in the social sector and achieving socio-economic security. Social entrepreneurship implies innovative and financially sustainable activities targeted at social problems. However, its commercial activities do not necessarily need to coincide with the social mission; rather, their purpose is to create financial resources to implement social objectives. Thus, social entrepreneurship can encompass a rather broad range of organizations and businesses – ranging from those which generate their own profit to those which obtain resources for

other organizations that fulfill the social mission. This paper will explain the importance of the social entrepreneurship concept, entrepreneurship with moral and ethical integrity, criteria for its classification, as well as criticism of this concept. In the end, an overview of development of social entrepreneurship in the Republic of Croatia and in the world.

Key words: social entrepreneurship, social objectives, entrepreneurial culture, ethics, morality

1. INTRODUCTION

The term „entrepreneurship” generally describes the mechanism by which new products, services, and organizational processes are identified realized as a sustainable part of the society. Societies depend on entrepreneurs to drive job growth, innovate solutions to pressing problems, and pioneer technologies. Entrepreneurship is not limited to the for-profit business world. Although profit is fundamental for a sustainable organization, it’s not always the end goal. This is the reason that social entrepreneurship was developed and implemented in the last centuries. Social entrepreneurship rather aims to benefit the community by redirecting all profit back towards a social mission.

Trends from the preceding two decades show that social entrepreneurs have moved from their traditional philanthropic and charitable moorings to find more effective and sustainable solutions to social problems using the tools from the world of business.

2. CONCEPT AND HISTORY

Over the past two decades, then citizen sector has discovered what the business sector learned long ago, there is nothing as powerful as a new idea in the hands of a first-class entrepreneur. (Franičević, 1990; Buble, Kružić, 2006).

The term "social entrepreneurship" is relatively new, but it builds upon centuries of transformative leadership. Social entrepreneurs are people or organizations that use economic and technological innovation to achieve social goals. They use entrepreneurial skills to create organizations that, instead of seeking profit, pursue a more just and humane society. (Noya, 2009)

The results of a research conducted by the American economist David Birch in 1979 are responsible for the nowadays almost generally accepted link between entrepreneurship and economic development, with entrepreneurship being its main driving force. Rather unexpectedly, this research has shown that in the course of the observed period, the businesses with less than one hundred employees generated more than 80% of new jobs in the USA.

In Europe, the collective dimension is important and social entrepreneurship is almost always launched by means of a joint initiative, common ownership and democratic management structure. The European Commission has therefore outlined its own definition of social entrepreneurship, according to which it is defined as the sector located between the private and the public sector, which operates in accordance with the social mission and requires entrepreneurial spirit (European Commission, 2010).

Social entrepreneurs are individuals with innovative solutions to society's most pressing social problems. They are ambitious and persistent, tackling major social issues and offering new ideas for wide-scale change. Social entrepreneurs find what is not working and solve the problem by changing the system, spreading the solution, and persuading entire societies to move in different directions.

Social entrepreneurs create new organizations, new markets, and new ways of thinking and behaving in solidarity with poor communities to provide basic services, such as renewable energy, clean water, health care technologies, education, and access to financial services. SEs devise highly affordable products and services that can be bought by people living on a few dollars a day, and create businesses that can distribute these to poor communities. Many SEs come from the communities that they serve. Some SEs work with women and their specific socio-economic needs. (Austin, Stevenson, Wei-Skillern, 2006)

Social entrepreneurs often seem to be possessed by their ideas, committing their lives to changing the direction of their field. They are visionaries, but also realists, and are ultimately concerned with the practical implementation of their vision above all else. (Dees, 1998)

Social entrepreneurs present user-friendly, understandable, and ethical ideas that engage widespread support in order to maximize the number of citizens that will stand up, seize their idea, and implement it. Leading social entrepreneurs are mass recruiters of local change maker's role models proving that citizens who channel their ideas into action can do almost anything.

Just as entrepreneurs change the face of business, social entrepreneurs act as the change agents for society, seizing opportunities others miss to improve systems, invent new approaches, and create solutions to change society for the better. While a business entrepreneur might create entirely new industries, a social entrepreneur develops innovative solutions to social problems and then implements them on a large scale.

Increasingly business graduates are recognized as possessing important skills that can drive social change. This new discipline is often referred to as Social Entrepreneurship. SE-s describes the discovery and sustainable exploitation of opportunities to create public goods. This is usually done through the generation of disequilibria in market and non-market environments. The SE-n process can in some cases lead to the creation of social enterprises. These social

ventures are hybrid organizations exhibiting characteristics of both the for-profit and not-for-profit sector. Individuals engaging in SE-s are usually referred to as social entrepreneurs, a term that describes resourceful individuals working to create social innovation. They do not only have to identify (or create) opportunities for social change (that so far have been unexploited), they must also muster the resources necessary to turn these opportunities into reality. (Mair, Marti 2006)

A typical example is Prof. Muhammad Yunus, is a Bangladeshi social entrepreneur, banker, economist and civil society leader who was awarded the Nobel Peace Prize for founding the Grameen Bank and pioneering the concepts of microcredit and microfinance. These loans are given to entrepreneurs too poor to qualify for traditional bank loans. In 2006, Yunus and the Grameen Bank were jointly awarded the Nobel Peace Prize "for their efforts through microcredit to create economic and social development from below".

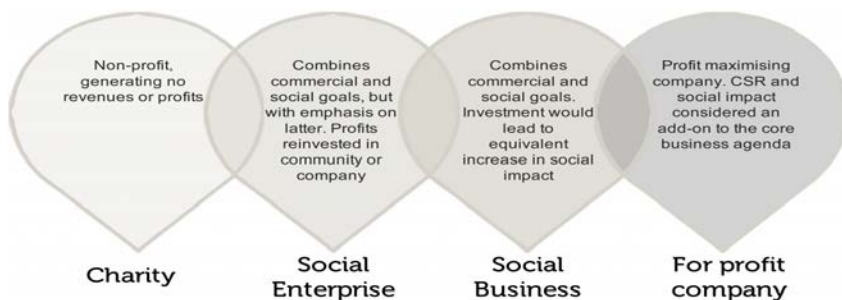


Figure 1 Models of social enterprises

Many people who approach us ask how social enterprises make their money, or how a social enterprise is different from a business (or indeed how it is different from a charity). Because there is such a range of high-impact organizations operating in such a myriad of ways, these questions are impossible to answer precisely except that, simply put, these businesses have impact and financial success at their core.

Sometimes it is useful to consider some organizations as “impact first”, like charities, and some as “purely for profit”. This spectrum of organization types shows the range of organizations working to create change and there are many. It’s also very limiting. Considering the landscape as “charity vs. company” or “social enterprise vs. social business” obscures the wider movement that sees business and finance as a force for good.

It means disregarding the idea that all businesses have an impact. Some have overwhelmingly positive impacts, some have overwhelmingly negative impacts, and many fall somewhere between the two.

The critics of the social entrepreneurship concept argue that attributing the crucial role to social entrepreneurship in the process of dealing with social problems, and especially in the creation of employment, is arbitrary and groundless (Cook et al, 2000). It is believed that social entrepreneurship system does not have the strength to offer a solution for structural unemployment. Another problem is the inability to measure social effects and social values that social entrepreneurship creates (Dees, 1998). It is difficult to establish whether social entrepreneurship justifies the invested resources in the economic and social sense, and whether it contributes to social development.

Debates have been held on positioning social entrepreneurship within one sector (non-profit sector), or in the sphere of cross-sectoral activities. Ultimately, this paper analyzes how the social entrepreneurship concept can be observed as the product of dominant values in a society. It also examines how social innovation can bring about new aspects of socio-economic balance and general well-being? If social entrepreneurs were to stimulate their employees' entrepreneurial initiatives, a greater number of innovations would be achieved and, consequently, competitive advantage would increase. The role and the importance of social entrepreneurship is an increasingly interesting area of study.

Theoreticians of entrepreneurship are trying to provide answers to the following questions: 1. Why, when and how do opportunities for creating value occur? 2. Why, when and how certain individuals detect and capitalize on those opportunities? These current issues are dealt with by means of social entrepreneurship.

The public system in Croatia, which ensures at least some degree of equality, keeps becoming more and more obsolete, which is reflected in the crisis of the welfare state, permanent growth of unemployment, stratification of the society into the extremely rich and the extremely poor, and the disappearance of the middle class which was the main driving force of Croatia's economic development. The new concept and phenomenon of social entrepreneurship offers a solution to accumulated social problems by indicating the need to broaden the horizons and establish a new social balance.

3. SOCIAL ENTREPRENEURSHIP IN CROATIA

In recent years, social entrepreneurship initiatives are becoming very important subject in the economies of many countries around the world. In Croatia, the interest in social entrepreneurship has increased only in the last several years. The number of stakeholders involved in social entrepreneurship activities is still modest. A particularly important step in the institutional recognition of the phenomenon is a recent initiative by the Ministry of Economy, Labour and Entrepreneurship for the development of a social entrepreneurship strategy. This not only recognizes the uniqueness of this type of activity, but also

acknowledges its importance in the socio-economic development and attempts to establish new balance in the Croatian society.

For the social entrepreneurs in Croatia to be willing to invest their knowledge and skills, as well as their time and energy, it is necessary to establish a working environment which stimulates employees' creativity and the process of innovation, while it is also necessary to highlight that this cannot be achieved without appropriate support and understanding at all levels within the state. Therefore, support to a social entrepreneur, which is reflected in the willingness to enable, support and promote entrepreneurial activities by providing all necessary resources, is a crucial factor in the development of social entrepreneurship.

The consequences of the ongoing financial crises have highlighted advantages of social enterprises that have demonstrated robustness in periods of negative economic developments and stable positive social impact on the societies in which they are operating. European Union has included development of social entrepreneurship and social economy very high on its list of priorities in the 2014-2020 periods.

The concept of social entrepreneurship in Croatia has become recognizable in the last several years mostly because of initiatives from nonprofit organizations and couple of pilot grassroots initiatives. Due to insufficient funding these organizations are increasingly turning to social entrepreneurship as the self-financing practice.

Although social entrepreneurship as a new paradigm in dealing with social problems is increasingly popularized in the world, organizations and individuals that are part of the social entrepreneurship development in Croatia are faced with various problems, such as lack of structural support of any kind, misunderstanding of the concept and the lack of clarity about responsibilities for its implementation by institutions dealing with social issues.

In Croatia, almost all of the social enterprises have emerged through one of 3 models:

1. Civil society organizations trying to become independent from grants and donations start asking fee for their services mostly in the field of environmental study, social services, education and research or culture and community development. Becoming social enterprises, they do generate profit, but this profit is than reinvested into the society. Still, not all CSOs are social enterprises; moreover it is still a rare practice.

2. Grassroots initiatives in which social entrepreneurs have detected needs in the local community to solve specific problem or to provide a specific social service (e.g. SLAP Osijek, ACT Čakovec).

3. Social enterprises created through the work of social incubators or incubating programs, unfortunately still very limited in Croatia (newly founded Impact Hub Zagreb program of Croatian Caritas and Ministry of Economy, 2006-2010, UNDP)

Faced with the consequences of economic crises that has struck world in the last few years, many people have started to think about the roots of the crises and the position of today's financial institutions in the society.

In quest for solutions, people have started looking for alternative financial models that would be different from the current flawed ones and could serve needs of people and communities in the better way than the present ones.

Instead of accepting this situations, this group of young experts from different profiles (physicists, mathematicians, econometrists, economists, IT experts and lawyers) have begun looking for a new models that would put not profit but needs of the community into the focus of financial institutions and would position banks as a pure service to the productive part of the economy with improvement of the social services and quality of lives of individuals as the main objective of their work.

Since the 1930s the banking business, which originally had social connotations, has been losing its original ethical features. This has made necessary the birth of a new generation of social banks, the so-called "ethical banks". These have the objective of achieving a positive impact in the collection and in the use of money. They invest in new activities such as organic farming, renewable energies, the Third sector (or not-for-profit sector) and Fair Trade.

Table 1

Social entrepreneurship in Croatia

<i>NAME</i>	<i>AREA OF ACTIVITY</i>	<i>MAIN GOALS</i>
<i>ACT</i>	<i>Čakovec</i>	<i>Development civil society</i>
<i>BARKAN</i>	<i>Otočac</i>	<i>Promote cycling in Otočac</i>
<i>GRUPA KORAK</i>	<i>Karlovac</i>	<i>Protection of women's and children's rights</i>
<i>UDRUGA LASTAVICE</i>	<i>Split</i>	<i>Improving the quality of life people with disabilities</i>
<i>UDRUGA MI</i>	<i>Split</i>	<i>Development local community</i>
<i>ZADRUGA DOBRONAM</i>	<i>Zagreb</i>	<i>Personal and social development</i>
<i>NOA</i>	<i>Osijek</i>	<i>Social banking</i>
<i>PLAVI SVIJET</i>	<i>Veli Lošinj</i>	<i>Protection of the Adriatic Sea</i>
<i>RODA</i>	<i>Zagreb</i>	<i>Protection children and parents rights</i>
<i>SLAP</i>	<i>Osijek</i>	<i>Development local community</i>
<i>ZELENI OSIJEK</i>	<i>Osijek</i>	<i>Environmental protection</i>

Source: author research

Development of social entrepreneurship in Croatia is still in a beginning. There are ten forms of entrepreneurial activities in field of civil society and one social bank. They are developed in Čakovec, Otočac, Karlovac, Split, Zagreb, Osijek and Veli Lošinj. Main goals are mainly focused on protection of women's and children's rights, improvement the quality of life people with disabilities, protection of Adriatic Sea and environment as well as development of local community.

4. ETHICAL BANKS

Characteristics of ethical banks

Banks need to satisfy the whole range of criteria in order to be called ethical by the definition of FEBEA. These criteria could be divided through several topics.

Role of an ethical bank

The role of an ethical bank is to work for the common good and ensure the right to receive credit through a bank activity consisting in raising funds and reallocating them in the form of credits for cultural, social and environmental projects. Through their activity, ethical banks promote social inclusion, sustainable development, development of social economy and social entrepreneurship. Ethical banks also have a role to raise public awareness on the role of money and the failure of the economy based on short-term and profit as the only objective. (Davies, H. 2001.)

Origin of money

The money on which an ethical bank bases its collection and its capital comes from savings of its customers, which are created through activities in real economy. An ethical bank does not accept "dirty" money, that is money that comes from illegal activities, from criminal groups or mafia, armament industry, highly polluting industries, or non-declared money.

Destination of money

The purpose of an ethical bank's credit activity is to have at the same time a positive impact at a social, environmental and economic level. For this reason an ethical bank addresses its collection/saving of money to socio-economic activities aimed at social, environmental and cultural profit. This objective is achieved through the support in particular through not for profit organizations to activities for human, social and economic promotion, also dedicated to the weaker sections of the population and to the most deprived areas, favoring social integration and employment. In an ethical bank the relationship with customers is often under the form of partnership.

In an ethical bank at least 90% of financing distributed to companies, institutions, organizations, meets both economic and socio-environmental criteria. The thorough assessment of multiple aspects of each funded project enables ethical banks to have a very low risk level. An ethical bank pays special attention to the support of initiatives for self-employment and women and youth, often through microcredit and microfinance. (Cowton, C. 2002).

Criteria and values for the use of money

The investments of an ethical bank are managed transparently. The amount of funding distributed by an ethical bank can be max. 15% of the regulatory capital.

In order to grant a loan an ethical bank does not consider only collaterals/real guarantees, but it also values personal or social guarantees provided by the local networks in which the funding is allocated. An ethical bank does not speculate (for clients nor for itself) in short term operations, but it favors the “long term” and the real economy.

Conditions for bank management

An ethical bank puts credit at the service of people and the exclusive research for profit is not its objective. A fair profit is necessary to ensure the economic viability and sustainability of the bank. An ethical bank is deeply rooted in the territory in which it operates, and in its socio-economic networks. An ethical bank assures this core value of participation through well-codified procedures and statutory instruments that enable members and employees (or their delegates) to influence directly on the management strategies of the bank. Beyond the value of participation, transparency is a fundamental value for an ethical bank: transparency in the origin and in the use of money, in credit and business management.

Need for ethical banking in Croatia

After the breakup of Yugoslavia and fall of the socialist system and after the war in 1990s, Croatia has privatized its banking sector almost completely. Through a series of privatization actions, most of Croatian banks have ended up in the hands of large foreign banking groups from Italy, Austria, France and Hungary.

This has put Croatian economy in quite difficult position. Fueled by massive privatizations in the country, banks have mainly invested in the consumption part of the economy, especially property sector. Loans for SME's and industry have become very expensive making those parts of economy uncompetitive on the domestic and international markets. Financial support for social enterprises, cooperatives and non-profit sector is almost non-existing because commercial banks see this sector as non-bankable.

5. CONCLUSION

Social entrepreneurship implies innovative and financially sustainable activities targeted at social problems. However, its commercial activities do not necessarily need to coincide with the social mission; rather, their purpose is to create financial resources to implement social objectives. Social entrepreneurs act as the change agents for society, seizing opportunities others miss to improve systems, invent new approaches, and create solutions to change society for the better.

In Croatia, the interest in social entrepreneurship has increased only in the last several years. Support to a social enterprise, which is reflected in the willingness to enable, support and promote entrepreneurial activities by providing all necessary resources, is a crucial factor in the development of social entrepreneurship.

Social entrepreneurship has quickly established itself as a dynamic field of practice and academic enquiry. Located at the interstices of the non profit, for profit and government sectors . A strong interplay between theory and practice is characteristic, also contributing to the rapid growth and sustained interest in the research.

For social banks, the responsibility for the whole of society is the most important measure for a good lending practice and is more important than profit alone. This is why social banking is often called “banking for social cohesion”, or “cooperative banking”, instead of the competitive banking approach, that has dominated the banking world in past decades. We have integrated ourselves with the world economy by adopting the respective concepts. In this scenario, it is right time to focus on the social and ethical issues in banking

Further research in Social entrepreneurship can be to explain and precise define the value of social effects that social entrepreneurship added to the entire society and it can also be one of research to demonstrates how commercial enterprise and established business models can be integrated with social value creation.

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OPPORTUNITIES AND CHALLENGES IN PROMOTING YOUTH ENTREPRENEURSHIP IN MONTENEGRO

JEL classification: M13

Abstract

The support for youth entrepreneurship in Montenegro is strong. The focus of the entrepreneurship programme at the faculty of economics at University of Montenegro is mostly on youth. There are several other organisations such as The Montenegrin American Youth Alumni Association (MAYAA), and The United Nations Development Programme (UNDP), which also organize a variety of presentations and workshops for students to pursue entrepreneurship. Recently one Montenegrin student's business plan, a proposal for the establishment of the Centre for Professional Rehabilitation and Employment of Persons with Disabilities, won the national competition in Montenegro, and was ultimately named the winner of the overall Europe-wide competition. However, the analysis shows that although in the areas of youth participation, significant progress has been made in the last several years, youth entrepreneurship programme in Montenegro is still in its early phase of development and needs strong sustainable commitment, assuring the development and efficient functioning of various youth participation mechanisms at the local, regional and national level. It is also essential to

continue to standardize and support youth work, youth information and non-formal business education of young people. Surveys show that young people in Montenegro believe they have much to offer and can significantly contribute to all areas of the society's development. However, their potential remains greatly unused due to the certain obstacles that they face. There are needs for encouragement of the youth informing them about how to participate in all aspects of society. This study is focused on investigation of the analysis of the opportunities and challenges that youth entrepreneurs face in contributing to all areas of the development in Montenegro. A quality research of several successful young entrepreneurs will be presented.

Key words: *entrepreneurship, youth, Montenegro*

1. INTRODUCTION

Montenegro lies in southeast Europe on the central part of the Balkan Peninsula on the coast of the southern Adriatic Sea. Montenegro borders Croatia and Bosnia Herzegovina to the west, Serbia to the north, Albania to the east and Italy over the sea. Montenegro covers a territory of 13,812 square km with 300 km of seacoast border. The geographic position of the country provides favorable conditions for specific economic activities, above all tourism.

In Montenegro, the structure of 6 539 enterprises, which submitted their balance sheets, small enterprises are dominant and present 96.5%, while the large enterprises present only 0.8%. The number of medium enterprises is also low, they represent only 2.7% of the sample. 20 enterprises or 37.95% within 53 large enterprises have positive business result during the recent years. This percent is 41.5% within the group of medium and 20.8% within the group of small enterprises. (COMMENT 7, 2001)

More than half of all registered enterprises have trade as their main sector of activity. The other dominant sectors are industry, construction, transport and communications. Tourism, although declared to be of strategic importance for the development of Montenegro, accounts for only 6.6% of all enterprises. (COMMENT 4, 2001)

Analysis of the population (15+) of Montenegro in 2010 survey (Ipsos, 2011) shows 48.8% male and 51.2% female. From this number 57.3% of male are employed and 42.7% of female are employed. The survey also shows that 54.5% male are unemployed and if employed persons are observed, it is noticeable that women have higher level of education than male population: 31.4% of the employed women have tertiary (college or university) education, while just 21% of male population have the same level of education. However, the percentage of male citizens who, after primary school, gained appropriate professional education is

double that of the female. The male Self-employed is 21.3% almost double of female at 8.9%. This is indicative of much less opportunity for the female entrepreneurs. Nevertheless, this fast and emerging economy shows promising opportunities for youth entrepreneurs. However the country faces a high youth unemployment rate.

Literature on entrepreneurship has extensively noted the differences between 'necessity' and 'opportunity (productive)' entrepreneurship (Baumol, 1990). Necessity entrepreneurship has been widespread, but opportunity entrepreneurship has been relatively scarce (Rogerson, 2001). While opportunity entrepreneurship has a significantly positive effect on development, necessity entrepreneurship has almost none. This study tries to understand whether entrepreneurship is the preferred career choice among young Montenegrin youth or whether they prefer and desire to become entrepreneurs due to the lack of other opportunities. Put differently, the research endeavored to find out if young people are less or more committed to entrepreneurship than adult entrepreneurs. The study on 'Opportunities and Challenges to Youth Entrepreneurship: Perspectives of Young Entrepreneurs in Montenegro looks into several factors in business development by young people and highlights how in addition to the business environment, other factors namely positive community and family attitudes and culture of entrepreneurship as well as skills and motivation of entrepreneurs are critical for fostering productive youth entrepreneurship in the country.

In addition this paper will enhance our understanding of the complex employment challenge facing Montenegrin youth and stimulate discussion on how to address this key development issue. Given the disadvantages young entrepreneurs face compared to their adult counterparts, they are on average likely to spend more time than the adults dealing with taxes and regulations. They are also more easily discouraged. The range of barriers that youth need to overcome on their way to entrepreneurship tends to be more extensive than for adult entrepreneurs (Schoof, 2006). The study could be a building block for strategies, policies and programs for sustainable livelihoods of Montenegrin youth, in particular job creation and entrepreneurship.

Montenegrin youth as everywhere in Europe face a major youth employment challenge, as evidenced by a high youth unemployment rate. At the same time, policymakers have been increasingly recognizing entrepreneurship as a key driver of economic development by fostering growth, technology adoption and innovation as well as poverty alleviation. In this paper, entrepreneurship is defined to be 'resources and process whereby individuals utilize opportunities in the market through the creation of new business firms' (Naude, 2010).

2. METODOLOGY

The research procedures involved the development of six case studies of successful young people between 20-30 years old engaged in business, and that

have been identified as youth entrepreneurs. The process for the development of theory from case study research was used as a guide to the study. Each of the eight steps she advocates was followed, along with the principles of case study design and analysis recommended by (Yin 1989). Documentary and verbal data was collected with a case study protocol to provide consistency of focus across the six cases. While interviews, observations, and archival sources are particularly common, inductive researchers are not confined to these choices. This study utilizes five carefully designed areas with research question for interview and quality research. Six cases were studied through careful analysis of the answers given through interviews, and their qualitative responses provided the basis on which we deduce our research findings.

The study is carefully carried out by interviewing six case study discussions with young entrepreneurs and some graduate students of entrepreneurship at the University of Montenegro.

Young Montenegrins are drawn to entrepreneurship out of both desire for change and opportunity to realize their vision and contribute to their country and community. While well-recognized constraints in the business environment (e.g., access to credit, property rights) undoubtedly play an important role, other factors such as positive family and friends support and education for entrepreneurship are also critical for fostering youth entrepreneurship. Implications for policies point to the need to foster more support training and technical assistance for youth beyond the nascent stage of their businesses to ensure higher perseverance and ‘graduation’ to higher value activities; to develop new and innovative sources of finance taking into account specific characteristics (higher risk, innovativeness, use of ICT) of youth; and Improve the regulatory environment, including transparency and accountability.

Table 1

List of Cases and their description

CASE 1	<i>Young entrepreneur has launched the production of handmade dresses for small and big princesses. She has a bachelor degree in banking and finance and has experience in marketing. She has worked in the financial sector. She has had the desire to change her life and align her business and family obligations in a different and creative way. She has succeeded in a mother and daughter business and expanded the business with serious potential.</i>
CASE 2	<i>An IT company with great enthusiasm and creative energy is lead by a young entrepreneur. His team consists of talented and experienced strategists, managers, designers and engineers who are intensely curious and passionate for their design and technology. We enjoy real simple, functional and beautiful projects with which they are very proud of our clients and us. In the end, creativity is our playground and our inspiration.</i>
CASE 3	<i>Company founder a young entrepreneur is a mechanical engineer. His company is a young trading company in private ownership. The main activity is trade equipment and installers in the construction industry, primarily for heating, air</i>

	<i>conditioning, water supply and sewage. The satisfaction of the customers is imperative for their business. The main vision and mission of the company is to become a reliable partner to all their customers and together with them to develop and nurture close and intense relationship.</i>
CASE 4	<i>The goal of this start up is to provide integrated health food of organic origin, in the territory of Montenegro. Through the site this young entrepreneur has developed he is promoting the organic products but also healthy lifestyles through raising awareness of its importance. Website connects farmers from Montenegro through the presentation of their offers, and currently on the site presents 120 different products from 15 different manufacturers mainly from rural areas of Montenegro. The motto is: "give and you give yourself and loved ones healthy foods and go back to nature and its fruits in unmodified form.</i>
CASE 5	<i>Founder of this company is a young graduate economist. The agency he started is engaged in providing services through facilities that best suit the needs of both the tenant and the lessor. Landlords are expect to showcase their properties to a number of potential tenants. The company is responsible for the right match. When choosing a property for the clients they always follow specific needs and requirements in the offer.</i>
CASE 6	<i>Young man after finishing his studies in finance and banking in Italy, where he played basketball decided to shape his career in accordance with his wishes. He started a family business. He had a clear goal with an ambitious vision. He has since represented brands such Michelin, Continental, Pirelli, Bridgestone, Goodyear, Michelin, Bridgestone, Falcon, Riken, Kingstar, Zeta, Solideal and Galaxy in his business. They are committed to quality and build loyal customers.</i>

3. RESULT AND DISCUSSION

The study highlights that young entrepreneurs are often not familiar with conditions they need to meet in order to start a business or obtain a loan. They are also not aware of all the supporting institutions and services available to them. A well-targeted training could help in this regard. Given the high perception of corruption and limited access to finance, the importance of reforms aiming at increased transparency and accountability, also in provision of financial services, cannot be overemphasized. Experiences of other countries emphasize the need to implement integrated reform packages rather than individual measures. Understanding the opportunities and constraints to youth entrepreneurship in different settings is thus critical for driving and successfully implementing this policy.

Traditionally and culturally Montenegrin youth are encouraged to look for employments in public or private sectors which in recent times making it even more challenging for graduating youth to find employment in the public sector or in established private firms. The emergence of youth entrepreneurship as a viable livelihood option is thus high on the policy agenda in most of European countries, making this study timely.

Challenges to access the finance

Table 5

	<i>CASE1</i>	<i>CASE2</i>	<i>CASE3</i>	<i>CASE4</i>	<i>CASE5</i>	<i>CASE6</i>
BANK	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>
Personal	<i>Savings & parents</i>	<i>Family & friends</i>	<i>& Personal</i>	<i>No funding</i>	<i>Friend</i>	<i>Savings & friends</i>

Support services

Table 6

	<i>CASE1</i>	<i>CASE2</i>	<i>CASE3</i>	<i>CASE4</i>	<i>CASE5</i>	<i>CASE6</i>
Government	<i>No</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>No</i>
NGO	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>

4. CONCLUSIONS

The study highlighted that young entrepreneurs are often not familiar with conditions they need to meet in order to start a business or obtain a loan. They are often driven by their desires to make a change or become more independent. They are also not aware of all the supporting institutions and services available to them. A well-targeted training could help in this regard. Given the limited access to finance, the importance of reforms aiming at increased transparency and accountability, also in provision of financial services, cannot be overemphasized. Experiences of other countries emphasize the need to implement integrated reform packages rather than individual measures. Understanding the opportunities and constraints to youth entrepreneurship in different settings is thus critical for driving and successfully implementing this policy.

In this research, entrepreneurship is defined to be 'resources and process whereby individuals utilize opportunities in the market through the creation of new business firms' (Naude, 2010). Entrepreneurship often promotes social identity of youth by giving them a stronger sense of community where they are valued as well as of 'meaning' and 'belonging' (White and Kenyon, 2000). In sum, this examines the opportunities and to entrepreneurship as seen by young entrepreneurs in constraints Montenegro.

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FACTORS DETERMINING EARLY INTERNATIONALIZATION OF ENTREPRENEURIAL SMES: THEORETICAL APPROACH

JEL classification: F23, M16, L26

Abstract

The management literature has recently given the increased attention to the topic of entrepreneurial activity and internationalization of small and medium sized enterprises. The rapid internationalization of SMEs activities since their establishment becomes one of the features of international new ventures. This paper presents different factors, which determine early internationalization of international new ventures. These factors are divided to entrepreneurial, organizational and contextual factors. We argue that early internationalization of international new ventures is defined by entrepreneurial characteristics and previous experience of the entrepreneur, opportunities recognition and exploitation, risk tolerance, specific of the organization, involvement into networks and contextual factors. This paper conceptualizes a framework which links different factors. Benefits of early internationalization are provided too. The conceptual framework is built on the analysis and synthesis of scientific literature. Based on theoretical results further research directions are presented.

Key words: early internationalization, international new ventures, entrepreneurial, organizational and contextual factors.

1. INTRODUCTION

More than 95% of businesses in OECD zone are small and medium-sized (SME) enterprises (OECD, 2005). Their role is constantly growing. The growth and survival often depends on international expansion. The rapid development of globalization, increased competition among enterprises and changes of business environment is encouraging these companies to internationalize their activities from the very beginning or after a short period of time since its establishment. They rapidly internationalize disregarding higher risk, lack of resources, increased responsibilities and commitments. Such companies are known as international new ventures. These companies are characterized as having innovative, proactive and risk-accepting behavior, and are known as international new ventures (Acedo and Jones, 2007, Mathews and Zander, 2007; Crick, 2009; Gabriellsson et al., 2014). However, there is no common opinion, which factors are the most important and determine the early internationalization of these companies. Taking into account these factors SMEs could strengthen its activities and transform them into unique resources.

The research question could be defined as: what factors determine the early internationalization of entrepreneurial small and medium-sized enterprises? The purpose of this study – to develop a theoretical framework to investigate factors determining early internationalization of international new ventures. This study extends the scientific discussion of early internationalization of SMEs. The novelty of this study is manifested in creation of different approach to factors determining early internationalization. It is proposed the approach of overlapping factors. It is seeking to highlight the statement that factor itself has limited effect to early internationalization. Only the interoperability of categories and factors gives a positive impact on early internationalization of entrepreneurial SMEs. Scientific literature analysis and statistical data analysis has been used for this study as main method.

2. INTERNATIONAL NEW VENTURES AND DETERMINANTS OF EARLY INTERNATIONALIZATION

2.1. The concept of international new ventures

The concept of international new ventures combines international business and entrepreneurship disciplines. In today's global world traditional models of internationalization, such as Uppsala internationalization model, are no longer able to explain the expansion of SMEs into foreign markets (Andersson and Evangelista, 2006; Chetty and Campbell-Hunt, 2004). The resulting criticism had encouraged to create the so-called paradigm of "global approach". The paradigm refutes concept of the internationalization process as a gradual commitment i. e. slow, step-by-step expansion into foreign markets (Johanson

and Vahlne, 2009). Nowadays, entrepreneurial SMEs seek to have access to a wider range, cheaper resources and not only to occupy a higher number of markets. The impact of increased globalization encouraged companies to start international activities from the very beginning or after a short period of time since its establishment in different countries at the same time.

Such companies are called Born Global (Knight and Cavusgil, 2004; Oviatt and McDougall, 1994), Born-again Global (Bell et al., 2001; Tuppura et al., 2008), Global startups (Oviatt and McDougall, 1994) and International New Ventures (McDougall et al., 1994; Mathews and Zander, 2007). These types of SMEs are shaping international market oriented strategy since from the very beginning of their establishment (Aspelund and Moen, 2005). Most of sales revenue are generated from abroad (McDougall et al., 1994). International New Ventures by using a strategy of Born Global companies are forming innovative, proactive and risk taking behavior which is creating a value beyond borders of home market (Mathews and Zander, 2007). The new approach highlights innovative and organizational capabilities of young companies in early internationalization. Due to innovative products such companies can achieve rapid growth (Nummela et al., 2004). The control of valuable and unique resources, effective international communication and homogenization of markets in many countries, enables young and small companies to carry out early internationalization (Oviatt and McDougall, 1994; Knight and Cavusgil 2004).

2.2. Determinants of early internationalization

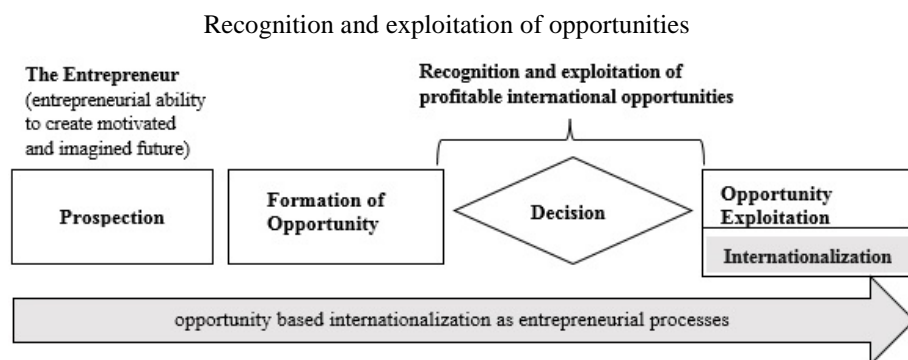
Determinants of early internationalization could be combined into three categories: entrepreneurship and business orientation of managers or founders, organizational factors also contextual factors, related to business environment (Escandón Barbosa et al., 2013; Felício et al., 2014). Determinants, grouped into these three categories and further detailed, are: 1) Characteristics, competencies, previous experience of entrepreneur 2) Recognition and exploitation of opportunities 3) Risk tolerance; 4) Organizational factor; 5) Networking; 6) Contextual determinants: sector (industry) and technological.

Determinant of entrepreneurship. It is essential for small and medium sized companies to have a set of entrepreneurial characteristics. Initiative reflects a desire of entrepreneur to move forward bravely (e.g., by introducing new products / services earlier than competitors) and to act as expecting to create needs, change them and shape the environment (Keh et al., 2007). These features represent a very aggressive mode of proactive individuals allowing them to "skim" the foreign markets and achieve a greater international scale (Pérez-Luna et al., 2011). When allocating human and financial resources for internationalization, initiative individuals seem to be more sensitive to the needs of foreign market and are ready to exploit foreign opportunities that match their abilities (Morris et al., 2011).

Previous experience of entrepreneurs (especially international) is also very important and affects the results of rapid internationalization, because it amends a lack of organizational experience in internationalization process. Experience provides a cumulative knowledge for entrepreneurs, business contacts and entrepreneurial skills (Federico et al., 2009). Previous entrepreneurial experience could be understood as related to human capital and entrepreneurial social capital (Unger et al., 2011; Kwon and Arenius, 2010). Previous business experience helps to create knowledge, based on practical skills, which may increase the ability of entrepreneur to recognize opportunities and exploit them.

Recognition and exploitation of opportunities. Opportunities based motivation of entrepreneur is related to personalities that seek to benefit from new business opportunities (Shane, 2000). This is a personal desire to become independent and/or increase revenue, compared with employment in another company. Recognition and exploitation of opportunities becomes very important at an early stage of internationalization. Internationalization is a learning process of a key employees based on the recognition, aspiration and realization of opportunities (Zucchella and Scabini, 2007).

Picture 1



Source: adapted from Wach and Wehrmann (2014)

Risk tolerance. Risk-taking is considered to be the desire to deviate from already tested ways also initiative, whereof the possible results are not clearly known (Wiklund and Shepherd, 2003). Risk-taking and initiative are regarded as one of the most important factors in finding international opportunities and increasing the volume of activities abroad. Although a certain tolerance of risk-taking is necessary in seeking international expansion (Pérez-Luño et al., 2011). However, additional costs associated with such a high risk orientation arise. For example, companies, which accepts a higher risk, are more prone to diversification of costly new products than risk averse colleagues (Sapienza et al., 2005). The high cost of investments, resulting from high risk-taking, may negatively affect the profitability which is needed for entering new markets. Acceptance of this method, may threaten the survival of the company abroad and

distract from its ability to operate in other markets due to decreased international scope.

Organizational factor. Besides individual-level characteristics there are distinguished characteristics of organizational level that affect early internationalization of new companies (Zucchella et al., 2007). Studies of internationalization have shown the importance of organization's characteristics (Ruzzier et al., 2006) especially a characteristic of strategic behavior (Efrat and Shoham, 2013) and technological capabilities of a firm (Brach and Naudé, 2012).

Young companies have structural advantages in evaluating opportunities in foreign markets. Team positions in International New Ventures are mostly undifferentiated. Management and responsibility are shared among themselves. Such undifferentiation allows managers to share their knowledge across organizational structure. With increasing years of company's operation, differentiation in team is becoming higher. It could reduce the amount of transferred knowledge and intensity of communication. Propensity of managers to constantly improve skills and seek to acquire new abilities decreases within time, so the knowledge is stored in "special boxes" (Autio et al., 2000). Therefore, the earlier internationalization is, the more likely that employees will feel the company's potential and advantages of growth. As well as they easily and quickly share those advantages among organization.

Networking. The concept of networking includes the interaction between different participants which are operating inside and outside networks. There are two types of networks: informal networks (e.g., business partners, friends) and formal (e.g., banks, law system, business management structure of government). It was identified that entrepreneur of SME is inseparable and dependent on informal networks. However, the same can not be said of formal networks. Networking stimulates the establishment of business entities.

Studies have proved the importance of international networks, both individual and organizational level, for international expansion. Studies of SMEs internationalization and especially International New Ventures (Sharma and Blomstermo, 2003; Coviello and Cox, 2006) have shown that international social capital, demonstrated by company's founder, facilitates the process of internationalization. Studies emphasize the importance of evolving relationships and the need to create new networks at the beginning of internationalization. Such importance particularly increases when operating in innovative niche segments due to much more difficult survival using only existing networks (Loane and Bell, 2006). International networks help companies to gain resources that would not be available due to financial constraints or because of small scope of ongoing operations (Gassmann and Keup, 2007). Networks for International New Ventures founders help to envisage new business opportunities and affect the entrance to foreign markets. Also, it is easier for companies to acquire knowledge about the market, identify the key customers, sources of funding and strengthen its R&D activities (Loane and Bell, 2006).

Contextual determinants. In addition to analyzed individual and internal factors, a significant impact for early internationalization of International New Ventures has external factors. It is a mixture of economic, legal, political, institutional, social and technological factors. Its changes may positively or negatively affect internationalization process of International New Ventures which are having a limited amount of resources. These companies have much more difficulties to predict and cope with effects of external factors. Hence, the internationalization process of International New Ventures are mostly affected by sector's, which the company operates in, and technological factors.

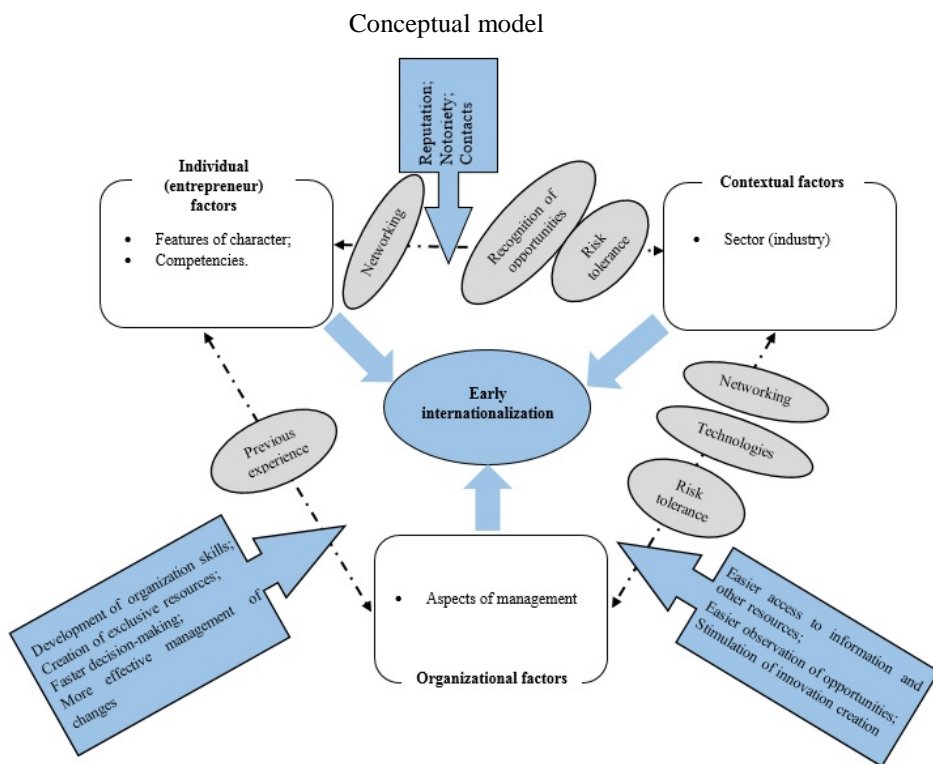
The sector may predetermine the internationalization speed of new companies. Peculiarities of sector, e.g., technology of production or market characteristics, may be more important for internationalization even than the internal aspects of companies (Fernhaber et al., 2008). Some of new companies gain advantages from their industry because they have access to information, knowledge and networks, which increases their chances of becoming exporters (Zucchella et al., 2007). It means that the impact of import-export environment encourages companies to internationalize activities. For example, international entrepreneurship is often associated with high-tech sector. However, early internationalization is related not only with high-tech sector (Gassmann and Keupp, 2007). The degree of internationalization in the industrial sector may also have an impact on the internationalization of new companies (Fernhaber et al., 2008).

Factor of technological intensity is related to the company's ongoing R&D part of the expenditure of gross income (in percent). The approach of International New Ventures indicates that early internationalization, besides the already mentioned factors, is promoted by capabilities of organizational learning and innovations (Filatotchev and Piesse, 2009; Knight and Cavusgil, 2004). The biggest effect of innovations manifests in tech industries, due to shorter life cycle of product. Hence, the company has a relatively short period of time to achieve economies of scale until the product is up to date.

2.3. Development of a conceptual model

Based on a specified factors is formed a conceptual model of factors determining early internationalization (Picture 2).

Picture 2



Source: created by the authors

Early internationalization is beneficial for International New Ventures, especially for financial performance (Sapienza et al. 2006). Flexibility, the ability to adapt and quickly respond to the situation enables International New Ventures to achieve growth by using early internationalization as a strategy. This kind of early internationalization provides opportunity to reach economies of scale and increase the volume of business. Early internationalization for International New Ventures provides an opportunity to get in touch with new customers also to attract resources needed. Different geographic markets may create new challenges, but studies is showing that International New Ventures has "the ability to learn from new experiences" (Autio et al., 2000).

Early internationalization to foreign market may be an expensive process, which partially affects the company's short-term perspective. The lack of previous experience, among International New Venture team members, increases costs of early internationalization. However, International New Ventures are incurring lower internationalization costs than previously established companies. This is due to the fact that INV tend to have a limited amount of operations that

do not require high transaction and coordination costs. Straightforward organizational structure also reduces these costs. Responsibility of newness and foreignness increases costs, because companies engaged in early internationalization cannot operate so effectively as a local companies. It is likely that new company will make mistakes in new and unfamiliar market. However, if INV firstly choses export as an entry mode into a new market, may not increase the mentioned costs (Knight and Cavusgil, 2004). Furthermore, International New Ventures generally occupy niche markets (Lee et al., 2001), which is relatively easy to entrench and begin to communicate directly with suppliers and customers.

Accumulated experience of the manager and its dissemination in the company has a positive impact. Internationalization experience of the manager may be incorporated into the company's problem solving process. First, it reduces the costs associated with experimentation of new solutions and attempting to find the suitable solution. Secondly, it could reduce the approval time of plans of early internationalization and the number of lost (or undetected) opportunities. Finally, previous experience provides access to business networks and benefits in the sector on the basis of the status, trust and reputation.

3. CONCLUSIONS AND FURTHER RESEARCH

Following performed systematic scientific analysis of factors of early internationalization was created a theoretical model. The essence of this model is interaction of individual (entrepreneur'), internal (organizational) and contextual factors also their influence for early internationalization. It revealed that the interaction of these factors have a positive impact on the expansion of International New Ventures into foreign countries. Small and having limited amount of resources companies due to entrepreneur can recognize opportunities in foreign markets faster. Existing contacts help to get acquainted with the target market, internationalize activities much earlier. Therefore, companies achieve better results of expansion to foreign markets. Distinguished factors were theoretically analyzed in details and the impact for early internationalization of INV was submitted.

The theoretical model practically could be used by newly established companies which aim to execute the early internationalization. It could become an instrument to helping realize the essence of internationalization also to form the strategy of expansion to foreign markets. By using this instrument companies could identify the strongest and weakest factors that may affect the internationalization process. Theoretical model clearly shows interoperability of factors and dependency of each other. The weaker areas could be immediately strengthened or starting to look for ways to bypass them. The strongest factors revealed could be used as a basis for the implementation of early internationalization. Such behavior should increase the probability to accomplish

a successful early internationalization faster than other companies. What is vitally important for new companies due to lack of resources.

Further studies should include validation of theoretical model in different industrial sectors where small and medium sized enterprises are developing activities outside the country since its establishment. Separation of factors determining early internationalization in different sectors would allow to verify the dependence on the factor of sector. Other studies could include analysis of internationalization speed of International New Ventures and commitment into foreign markets. Also, the presented theoretical model is quite new due to introduction of more flexible approach to factors determining early internationalization. Therefore, future studies could include a practical confirmation or denial of such allocation of factors.

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COMPARATIVE ANALYSIS OF ENTREPRENEURIAL ORIENTATION OF CROATIAN AND SWEDEN STUDENTS

JEL classification: M16

Abstract

Entrepreneurial orientation is manifested through the dimensions of innovation, proactivity, risk-taking, competitiveness and autonomy. Numerous factors are responsible for its formation, and along with one's personality, one of the factors could as well be the influence of culture and education. Different cultures specify diverse expectations of an entrepreneurial career. The focus of this paper was the comparison of entrepreneurial orientation of Croatian and Swedish students. Croatian students show significantly lower entrepreneurial intention than Swedish students, and positive attitudes are more frequent with Swedish students. Swedish students consider the entrepreneurial climate to be more evident in their schools than Croatian students. Confidence in their own entrepreneurial skills for Croatian students is dependent on the support of the environment, which is not the case with Swedish students whose confidence depends solely on how individually entrepreneurial they are.

Key words: entrepreneurial orientation, Croatia, Sweden

1. INTRODUCTION

Entrepreneurship is an important economic and social phenomenon that affects economic growth, increases economic efficiency, competitiveness and stimulates innovation and job creation.

Entrepreneurial orientation includes formal and informal activities company will respond with to pressures of external and internal environment, resulting in a new business through various forms of innovation. Education can contribute to the development of entrepreneurial behavior through development of an entrepreneurial mindset, raising awareness of entrepreneurship as a possible career and improvement of important skills. However, the environment could easily affect entrepreneurial orientation and national culture as well as restrict entrepreneurial behavior at the individual level. In this respect, a culture that supports entrepreneurship "produces" more people with entrepreneurial potential and consequently strengthens entrepreneurial activity at the national level.

Numerous factors are responsible for the formation of an entrepreneurial orientation, and along with one's personality, one of the factors could as well is the influence of culture and education. Moreover, culture is an influential factor in shaping the way people think, communicate and behave. It is unique and differs between nations; therefore different cultures specify different expectations of an entrepreneurial career. Furthermore, an important role in the entrepreneurial orientation has an entrepreneurship education in creating capacity of universities and individuals in dealing with the complexity and uncertainty of the environment in which they operate. It develops a proactive approach, innovative mindset and accountability of an individual, as well as its willingness to take upon risks in making decisions and solving problems.

The aim of this study is to examine the impact of educational and cultural context, by means of a comparative analysis of two culturally different worlds – Croatia and Sweden. Whether the results confirm the link between cultures, defined by Hofstede's dimensions, with its members, was the main concern tested throughout this study.

2. ENTREPRENEURIAL ORIENTATION OF STUDENTS

There are numerous arguments supporting the claim that career identity starts developing in an early childhood with the comprehension of the concept of unemployment and welfare and at the 10 years of age the concept of salary as well as working conditions within the family. Moreover, research shows that children at the age of five understand work conflicts whereas in adolescence start to imitate the level of commitment and working habits of their parents. However, research confirms that early interactions within the school and work environment play a vital role in shaping one's long-term career interests, personal values, working skills and abilities. Therefore, early work experience (part-time job)

forms a later work behavior, and shows positive effections in career when it is challenging, takes away a maximum of 20 hours per week, and carried out under the adult supervision (Feldman, 2009., p.295 - 316).

Scott and Twomey set a model in which the entrepreneurial orientation of students is affected by a number of specifics - predisposing factors, trigger factors and a business idea. Predisposing factors include personality variables, one's origin (e.g. entrepreneurship in the family), perceptions of self in the context of different types of organizations, work experience, their hobbies. These factors evolve over time. On the other hand, trigger factors are short-term and conditioned by situations, such as job search, acquired career advices and the prospects of unemployment. The third factor - owning a business idea, authors consider the crucial one as simply having an innovative idea carried out under a supervision by an adult can boost aspirations for a challenge (Scott&Twomey, 1988., p.5.). These jobs will certainly help students crystallize their professional interests, adapt easier to work after school years, and assure them work experience that will increase their chances of employment, entrepreneurial aspirations, or constitute a 'push' towards entrepreneurship as an independent factor.

Students with high deference towards entrepreneurship tend to have more family role models, work experience and perceive self-employment desirable. Their hobbies show to be of importance as well. However, the biggest impact in explaining the career aspirations is having a business idea, as a direct predictor, as well as the intervening variable between predisposing factors and trigger factors with entrepreneurial orientation. It is in regards to this that entrepreneurship education plays a significant role, especially activities related to generating, critically evaluating and finally implementing business ideas (Erkko & Klofsten & George& Parker & Hay, 2001.,p.145-160) .

It is important to notice that the entrepreneurship education should not be limited to formal education for the acquisition of professional knowledge, skills and abilities, after which participants receive a public document. Accordingly, education should extend to other forms of education such as non-formal education, which includes organized learning processes aimed at training, specialization and personal development carried out in adult education institutions, companies, firms, associations, sports clubs, and various centers that do not issue public documents and are independent of the official educational system. As individuals unconsciously accept views, values, skills and knowledge from daily experiences and environment, it is clear that informal education plays an important role in developing entrepreneurial skills and overall improvement in this specific discipline. Although informal education does not have to take place consciously, the exchange of knowledge within the family, among friends, peers, as well as learning from role models and mentors has a crucial role in the development of entrepreneurial behavior. Entrepreneurial way of teaching requires an individual approach of the teacher towards student and his/her capacities, as well as the teacher's high level of flexibility. Therefore, the teacher

is the one who should provide a context for the development of entrepreneurial behaviors, skills and attitudes. This means including students in an entrepreneurial project, provide them with the relevant knowledge, inform on practical aspects, help them evaluate self-employment as a legitimate and desirable career option and so on. However, above all, raise their confidence in their own entrepreneurial competence through growing confidence in the entrepreneurial orientation (Miljković, 2010., p.417-423.). Entrepreneurship is a subject of growing interest to universities and business schools around the world. The impact of globalization creates a lot more opportunities, but also introduces uncertainty and complexity in the lives of individuals. Organizations change under the influence of global pressures. Individuals are also facing consequences of globalization through different employment opportunities, frequency of part-time and limited contract jobs, greater geographical mobility, etc. Furthermore, relationship towards family changes, there is a far greater responsibility to manage your own education, property, life and the prospects of facing pension uncertainty grow (Gibb, 2002., p.135.). Educational institutions and universities must direct their efforts towards preparing students for work in a dynamic, constantly changing global environment, and, thus, entrepreneurship education should equip young people with proper skills and knowledge that would eventually assist them in coping in an uncertain and complex business environment. Entrepreneurship education should go far beyond conventional business context (Gibb, 2002., p.41.)

Throughout entrepreneurship education, teachers have a significant role in achieving desirable objectives, as they should represent a kind of role models of entrepreneurial behavior. Moreover, teaching oriented towards action and learning from experience require additional efforts by teachers and therefore require further self-investment and additional material resources. With the increasing demand for entrepreneurship education, one of the biggest problems faced by entrepreneurial programs at universities around the world is the lack of qualified teachers (Gibb, 2003., p.135). There is a distinguished difference between teachers for entrepreneurship and teachers of entrepreneurship. Teachers for entrepreneurship usually have previous business experience as opposed to the teachers of entrepreneurship. This division is not surprising since the practical courses are better suited for teachers that have practical experience in entrepreneurship, while teachers who are researchers find courses that investigate the teaching of entrepreneurship and entrepreneurial quality easier to teach (Gibb, 2001., p.17-42.). Also the introduction of practitioners and real entrepreneurs in classes together with professors from the university represents a possible solution to this problem.

3. CULTURAL DIFFERENCES IN THE ENTREPRENEURIAL ORIENTATION OF STUDENTS

National culture affects the development of entrepreneurship primarily through the influence of cultural values that are part of every society, and through institutions that are the subject of this culture. Although the numerous studies have shown a correlation between national culture and entrepreneurial activity, results of cultural affects on entrepreneurial behavior, attitudes and perceptions remain relatively unexplored.

Entrepreneurship is constantly remodeling and promoting social progress and is an important source of innovation and economic growth of the country. Therefore, understanding the impact of culture on entrepreneurship is of great theoretical and practical value. (Hayton&George&Zahara 1995., p.56).

In this regard, entrepreneurship "produces" more people with entrepreneurial potential and consequently strengthens entrepreneurial activity at the national level. Although entrepreneurs in different countries usually share some universal characteristics, they can also possess some features specific to their respective national culture. For example, entrepreneurial activity is often encouraged, as a way of achieving economic growth and empowerment of marginalized segments of the population, in less developed countries. (Stopford&Baden-Fuller, 1994., p.521-536). As one of determinants that influence entrepreneurial diversity, many authors suggest cultural differences measured by Hofstede's methodology. Indeed, there are many empirical evidence that support this idea. Moreover, some authors suggest that culture plays a key role in explaining the differences in the intensity of entrepreneurial activity between countries, as cultural aspects are more of a permanent nature than economic conditions (Hofstede, 2001.)

Thomas and Mueller investigated variations of four key entrepreneurial characteristics (innovation, locus of control, risk taking and energy) and concluded that the entrepreneurial traits simultaneously reduce as the cultural distance of the observed countries of the West grows. In another study they examined the link between entrepreneurial characteristics of innovation and Hofstede's cultural dimensions of individualism and uncertainty avoidance. They found that innovation is highly expressed in cultures of individualism and low in cultures that are prone to avoiding uncertainty. There is a strong empirical evidence that the reasons for initiating entrepreneurial activities varies depending on the cultural dimensions of individualism, hierarchical distance and masculinity. Conducted studies provide two key insights on the role of national culture. The first implication is that, in the context of entrepreneurship, motivation theories in different cultures emphasize different motivational needs. Another implication is that national culture affects the national or regional rate of entrepreneurship by creating a larger number of potential entrepreneurs (Thomas & Mueller, 2012., p.287) .

Culture, in its various forms, manifests as a moderator between contextual factors and entrepreneurial activities. The moderating role of culture suggests that culture acts more as a catalyst rather than a cause of entrepreneurial activities. Although some studies have found significant relationships between national culture and entrepreneurial outcomes, most suggest that cultural traits transform and complement the institutional and economic contexts that influence entrepreneurship. Economic and institutional context are key initiators of entrepreneurship and economic development (Leff, 1979., p. 129).

If we explore the Croatian culture through the lens of the 5-D Model, we can get a good overview of the deep drivers of the Croatian culture relative to other world cultures. Croatia scores high on dimension power distance (score of 73) which means that people accept a hierarchical order in which everybody has a place and which needs no further justification. Hierarchy in an organization is seen as reflecting inherent inequalities, centralization is popular and the ideal boss is a benevolent autocrat (Hofstede, 2013). Croatia, with a score of 33 is considered a collectivistic society. This is manifest in a close long-term commitment to the member 'group', be that a family or extended relationships. Offence leads to shame and loss of face, hiring and promotion decisions take account of the employee's in-group, management is the management of groups. Croatia scores 40 on the dimension masculinity/femininity and is thus considered a relatively feminine society. In feminine countries the focus is on "working in order to live", managers strive for consensus, people value equality and solidarity in their working lives. Conflicts are resolved by compromise and negotiation. Incentives such as free time and flexibility are favoured. Croatia scores 80 on the dimension uncertainty avoidance and thus has a very high preference for avoiding uncertainty. Countries exhibiting high uncertainty avoidance maintain rigid codes of belief and behavior and are intolerant of unorthodox behavior and ideas. In these cultures there is an emotional need for rules (even if the rules never seem to work) time is money, innovation may be resisted, security is an important element in individual motivation (Hofstede, 2013).

Highly decentralized and supported by a strong middle class, Sweden is among the lower power distant countries (score 31). Co-determination rights are comparatively extensive and have to be taken into account by the management. A direct and participative communication and meeting style is common, control is disliked and leadership is challenged to show expertise. It is a truly individualistic one (Hofstede, 2013). Small families with a focus on the parent-children relationship rather than aunts and uncles are most common. There is a strong belief in the ideal of self-actualization. Loyalty is based on personal preferences for people as well as a sense of duty and responsibility. This is defined by the contract between the employer and the employee. Communication is among the most direct in the world following the ideal to be "honest, even if it hurts". Within a score of 5 Sweden is considered a feminine society. It is important to keep the life/work balance and you make sure that all are included. An effective manager is supportive to his/her people, and decision making is achieved through

involvement. Managers strive for consensus and people value equality, solidarity and quality in their working lives. Conflicts are resolved by compromise and negotiation and Swedes are known for their long discussions until consensus has been reached. Incentives such as free time and flexible working hours are favoured. The whole culture is based around 'lagom', which means something like not too much, not too little, everything in moderation. Sweden scores 29 on uncertainty dimension - low UAI societies maintain a more relaxed attitude in which practice counts more than principles and deviance from the norm is more easily tolerated. In societies exhibiting low UAI, people believe there should be no more rules than are necessary. Schedules are flexible, hard work is undertaken when necessary but not for its own sake, precision and punctuality do not come naturally, innovation is not seen as threatening. The Swedes score 29, making it a short term orientation culture meaning they generally exhibit great respect for traditions, a relatively small propensity to save, strong social pressure to “keep up with the Joneses”, impatience for achieving quick results. Western societies are typically found at the short-term end of this dimension, as are the countries of the Middle East (Hofstede, 2013).

4. METHODOLOGY AND INTERPRETATION OF EMPIRICAL RESEARCH

The cross-cultural research strategy used in this study was a narrow-sample strategy which is based on a survey questionnaire comparison of the similar subcultures in different countries. The intention is to maximally reduce the variance of data including age, sex, education so that remaining differences can be assigned to the national/cultural differences. Therefore, the respondents in Croatia and Sweden were students (at the University of Zagreb and the University of Lund). Total sample size was 103 with 52 Croats and 51 Swedes, and characteristics of this sample are presented in tables below.

Table 1

Gender

COUNTRY		N	%
Croatia	M	23	44,2
	F	29	55,8
	TOTAL	52	100,0
Sweden	M	30	58,8
	F	21	41,2
	TOTAL	51	100,0

Table 2

Have they ever been self-employed

COUNTRY		N	%
Croatia	No	31	59,6
	Yes	21	40,4
	Total	52	100,0
Sweden	No	32	62,7
	Yes	19	37,3
	Total	51	100,0

Table 3

Plans on being self-employed after they graduate

COUNTRY		N	%
Croatia	Very likely	8	15,4
	Probably	26	50,0
	Unlikely	13	25,0
	Probably not	5	9,6
	Total	52	100,0
Sweden	Very likely	5	9,8
	Probably	21	41,2
	Unlikely	17	33,3
	Probably not	8	15,7
	Total	51	100,0

From the above tables we can see there is no significant difference between the students of both cultures in the gender of the subject, then in the issue of self-employment of the students and their parents.

Table 4

Participation in any form of entrepreneurship education

COUNTRY		N	%
Croatia	Yes	52	100,0
Sweden	No	14	27,5
	Yes	37	72,5
	Total	51	100,0

Table 5

Participation in entrepreneurship education at the University?

COUNTRY		N	%
Croatia	No	3	5,8
	Yes	49	94,2
	Total	52	100,0
Sweden	No	9	17,6
	Yes	42	82,4
	Total	51	100,0

There is a visible significant difference in the entrepreneurship education between the Croatian and Sweden students, to the benefit of Croatian students. However, this finding should be interpreted with interest to the sample of Croatian students, who are all students of the Faculty of Economics. It is interesting to note that the Swedish students, although other faculty orientations (technical professions), had the opportunity to attend entrepreneurship on its faculty.

Table 6

Testing differences between samples of Croatian and Swedish students

	t	Sig.
Entrepreneurial intentions	-6,177	,000
Entrepreneurial	-1,438	,154
Open for new experiences	-,214	,831
Concrete entrepreneurial goals	1,439	,153
Entrepreneurial goals	-3,579	,001
The impact of college on the development of entrepreneurial tendencies	-10,171	,000
Entrepreneurial education	3,467	,001
Support of the environment	-,867	,388
Confidence in entrepreneurial abilities	-1,267	,208
Entrepreneurial initiative	,235	,815
Determinants of entrepreneurial success	-5,901	,000
Question about lottery	-1,887	,062
Entrepreneur plan	-3,607	,000
Evaluation of success	1,705	,092

The analysis results evident in Table 6 t-test analysis revealed a significant difference in the entrepreneurial intention, planning, attitudes, and determinants of entrepreneurial success (impact faculty and entrepreneurial education). There was no significant difference in the entrepreneurial initiative between Swedish and Croatian students.

Table 7
Testing differences between arithmetical means within two independent samples of students in Republic of Croatia and Sweden

	COUNTRY	N	Mean	Std. Deviation
Entrepreneurial intentions	Croatia	52	15,5769	3,30387
Entrepreneurial	Sweden	51	19,3137	2,81062
Open for new experiences	Croatia	52	13,5000	2,89354
Concrete entrepreneurial goals	Sweden	51	14,2941	2,70772
Entrepreneurial goals	Croatia	52	9,4808	2,82489
The impact of college on the development of entrepreneurial tendencies	Sweden	51	9,5882	2,21970
Entrepreneurial education	Croatia	52	40,2719	39,97884
Support of the environment	Sweden	51	30,4265	28,38105
Confidence in entrepreneurial abilities	Croatia	52	17,0769	3,60199
Entrepreneurial initiative	Sweden	51	19,5882	3,51668
Determinants of entrepreneurial success	Croatia	52	13,0192	3,14044
Question about lottery	Sweden	51	19,4118	3,23837
Entrepreneur plan	Croatia	52	1,9423	,23544
Evaluation of Success	Sweden	51	1,5490	,78266
Entrepreneurial intentions	Croatia	52	15,8462	3,03176
Entrepreneurial	Sweden	51	16,3529	2,89706
Open for new experiences	Croatia	52	17,3654	4,29787
Concrete entrepreneurial goals	Sweden	51	18,2941	3,01526
Entrepreneurial goals	Croatia	52	113,2719	43,38918
The impact of college on the development of entrepreneurial tendencies	Sweden	51	111,5049	31,97736
Entrepreneurial education	Croatia	52	30,8077	5,31383

Support of the environment	Sweden	51	37,3137	5,86682
Confidence in entrepreneurial abilities	Croatia	49	8,0612	6,64708
Entrepreneurial initiative	Sweden	51	10,3137	5,22873
Determinants of entrepreneurial success	Croatia	49	5,2041	1,82551
Question about lottery	Sweden	51	6,5294	1,84773
Entrepreneur plan	Croatia	49	35,2937	38,47361
	Sweden	51	23,7990	27,86593

Higher levels of entrepreneurial education in Croatian students in comparison to Swedish ones should be emphasized.

Background of these higher levels of education is clearer if we take the selection of faculty orientation of Croatian students into account compared with Swedish students, who are not that often economics profession. The unexpected results reveal equal levels of incentives and risk taking preferences (lottery) in students of both cultures.

How the entrepreneurial orientation is influenced by individual culture can be tested by the regression analysis, or determining how certain factors affect development of entrepreneurial orientation in students. In accordance to this, regression analysis was applied to determine which factors explain higher levels of entrepreneurial initiative, intentions, self-esteem, attitudes and clarity of business objectives in both national cultures.

Regression analysis showed that the overall impact of the environment has a statistically significant effect on the entrepreneurial initiative of Croatian students (these factors explained 21.9% of entrepreneurial initiative of Croatian students $F_{3,48} = 4.48$, $p < 0.01$). The same factors explained 13.7% of entrepreneurial initiative of Swedish students, which was not statistically significant ($F_{3,47} = 2.49$, $p > 0.05$).

Table 8

The coefficients of the regression analysis to determine predictor importance of certain factors in predicting entrepreneurial initiative among students

COUNTRY		standardized coefficient	T	Sig.
Croatia			-,258	,797
	The impact of college on the development of entrepreneurial tendencies	,043	,287	,775
	Entrepreneurial education	,057	,436	,665
	Support of the environment	,440	2,982	,004
Sweden			2,149	,037
	The impact of college on the development of entrepreneurial tendencies	-,086	-,435	,665
	Entrepreneurial education	-,130	-,947	,348
	Support of the environment	,422	2,124	,039

According to Table 8, a statistically significant factors of entrepreneurial intentions of both cultures are open to experiences as personality traits and self-confidence, and confidence in their own entrepreneurial skills. Thus, students of both cultures more open to experience and more assertive about their entrepreneurial skills will have more pronounced intention to engage in entrepreneurship.

Confidence personality traits, clear objectives, attitudes and environment predict a lesser extent in the Croatian population of students (33.3% self-confidence, $F_{8,43} = 2.68$, $p < 0.02$), than in the case of Swedish students (69.7% self-confidence, $F_{8,42} = 12.07$, $p < 0.001$).

Table 9

Coefficients of regression analysis that determine predictor importance of certain factors in evaluating entrepreneurial intention among students

COUNTRY		standardized coefficient	T	sig.
Croatia	Entrepreneurial	,028	1,427	,161
	Openness to experience	,325	,190	,850
	Concrete entrepreneurial goals	-,027	2,622	,012
	Entrepreneurial attitudes	,035	-,235	,816
	The impact of college on the development of entrepreneurial tendencies	,171	,223	,825
	Entrepreneurship education	,171	1,094	,280
	Support the environment	-,093	-,807	,424
	Entrepreneurship can not be taught	,074	-,462	,646
	Confidence in their entrepreneurial abilities	-,034	-,289	,774
Sweden	Entrepreneurial	,355	2,678	,011
	Entrepreneurial		2,274	,028
	Openness to experience	,032	,143	,887
	Concrete entrepreneurial goals	,292	2,265	,029
	Entrepreneurial attitudes	,006	,058	,954
	The impact of college on the development of entrepreneurial tendencies	,126	,830	,411
	Entrepreneurship education	,150	,775	,443
	Support the environment	,017	,164	,870
	Entrepreneurship can not be taught	-,031	-,192	,848
Confidence in entrepreneurial abilities	-,085	-,795	,431	
	,419	2,431	,020	

As seen in Table 9 higher levels of entrepreneurial initiatives in both cultures is best predicted by a greater environment support. Entrepreneurial spirit and openness as personality traits, clear objectives and attitudes, along with the influence of environment and education jointly account for higher levels of intent by students of both cultures (50.9% for Croatian students, $F_{9,42} = 4.83$, $p < 0.001$, and 63.1% for Swedish students, $F_{9,41} = 7.80$, $p < 0.001$).

Table 10

Coefficients of regression analysis that determine predictor importance of certain factors in evaluating self-confidence among students

COUNTRY		standardized coefficient	T	sig.
Croatia	Entrepreneurial	,014	1,338	,188
	Openness to experience	,060	,082	,935
	Concrete entrepreneurial goals	-,021	,418	,678
	Entrepreneurial attitudes	-,160	-,160	,874
	The impact of college on the development of entrepreneurial tendencies	,194	1,078	,287
	Entrepreneurship education	-,170	-,958	,344
	Support of the environment	-,041	-,307	,760
	Entrepreneurship can not be taught	,485	2,888	,006
	Entrepreneurship can not be taught	-,168	-1,259	,215
Sweden	Entrepreneurial		2,909	,006
	Entrepreneurial	,750	4,656	,000
	Openness to experience	-,089	-,777	,441
	Concrete entrepreneurial goals	,145	1,518	,136
	Entrepreneurial attitudes	-,047	-,344	,733
	The impact of college on the development of entrepreneurial tendencies	,227	1,333	,190
	Entrepreneurship education	-,069	-,773	,444
	Support of the environment	-,043	-,303	,763
	Entrepreneurship can not be taught	-,052	-,546	,588

Table 10 shows that support of the environment plays a greater role for the development of entrepreneurial self-confidence of Croatian students, than it is the case with Swedish students. Among Swedish students, instead of environment support that was not shown to be important for their self-confidence, sole initiative explained most of their entrepreneurship confidence.

The views are equally explained by personality factors and the influence of the environment in both cultures (48.9% attitude is explained by this factor and for Croatian students, $F_{5,46} = 8.81$, $p < 0.001$, a little more variance attitudes 57.9%, is explained in the Swedish students, $F_{5, 45} = 12.37$, and $p < 0.001$).

Table 11

Coefficients of regression analysis that determine predictor importance of certain factors in evaluating entrepreneurial attitude among students

COUNTRY		standardized coefficient	T	sig.
Croatia			,181	,857
	Entrepreneurial	,315	2,388	,021
	Openness to experience	-,029	-,245	,807
	The impact of college on the development of entrepreneurial tendencies	,324	2,273	,028
	Entrepreneurship education	,077	,694	,491
	Support of the environment	,227	1,785	,081
Sweden			1,761	,085
	Entrepreneurial	,375	2,245	,030
	Openness to experience	-,049	-,388	,700
	The impact of college on the development of entrepreneurial tendencies	,389	2,243	,030
	Entrepreneurship education	-,070	-,700	,488
	Support of the environment	,089	,565	,575

Table 11 reveals that in both cultures one can predict more positive attitudes towards entrepreneurship if students exert more entrepreneurial

intentions and their universities had a greater impact on development of their entrepreneurial tendencies.

The influence of the environment, entrepreneurial spirit and self-confidence proved to be irrelevant indicators of clarity of entrepreneurial goals for students of both cultures. Only 10.3% of clear entrepreneurial goals are identified by these factors for Croatian students, which is not statistically significant, $F_{5,46} = 1.05$, $p > 0.05$.

5. CONCLUSION

Croatian students show significantly lower entrepreneurial intention, while positive entrepreneurial attitudes are more frequent with Swedish students. Interestingly, Swedish students consider the entrepreneurial climate to be more evident in their schools. This finding is especially significant if one considers the significantly lower entrepreneurial education of Swedish than Croatian students. Further analysis identified a number of similarities among Croatian and Swedish students: in both cultures one may predict higher level of entrepreneurial initiatives where there is greater environment support exerted. Students from both cultures that are more open to new experiences along with possessing greater confidence in their own entrepreneurial skills will, as a result, exert stronger entrepreneurial intentions. However, confidence in their own entrepreneurial skills for Croatian students is dependent on the support of the environment, which is not the case with Swedish students whose confidence depends solely on how individually entrepreneurial they are.

Key objective of this empirical study was to demonstrate the impact of cultural and educational context on behavior of the individual in his/her entrepreneurial orientation, specifically of Croatian and Swedish students.

Therefore, conclusions based on this research are tentative and require further comparison including representatives of other cultures and faculties. Another limitation is identified through additional option of changing intentions and other factors of entrepreneurial orientation, and therefore would longitudinal research of tracking changes of entrepreneurial orientation over the years of study, as well as after studies, along with exploring the reasons of changing them, be desirable. The size of the sample of respondents appears as another potential limitation. Moreover, one has to keep in mind that since the research was conducted partly on the territory of Sweden, the availability of potential respondents in this area was not equal to one in Croatia. Finally, since this was a survey research, it lacked the "supervision" over the exploratory sample.

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INFORMATION TECHNOLOGY

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E-INVOICING AND E-GOVERNMENT – IMPACT ON BUSINESS PROCESSES

JEL classification: H 11

Abstract

Electronic invoicing (eINV) presents a possibility to use information communication technology for both the automating and redesigning business processes. Therefore, several initiatives at European level have been raised in order to facilitate the eINV environment. From the 1st of January 2015, eINV has become compulsory for the Slovenian public sector and companies with a registered office in Slovenia providing public services. However, since not every “e-initiative” is successful, the paper examines the effect of using eINV on business process performance. The paper therefore analyses whether eINV is streamlining administrative procedures, enhancing security and cutting costs. Moreover, it also analyses whether business processes were merely automated or also redesigned. Even though at the moment the regulation only concerns public sector, it may also present a large incentive to eINV in the private sector and therefore it is important to outline both its advantages and its pitfalls.

Key words: e-Government, e-Invoicing, business processes

1. INTRODUCTION

Information communication technology (ICT) presents massive possibilities for organisations and a society. After all, it enables innovation in business models, optimisation in business processes, facilitates business networking and presents new unprecedented possibilities for the society. Eventually, ICT is recognised as one of the most important factors for organisational competitiveness and overall economic growth.

However, technology itself is not a sufficient factor for an organisational performance since only considering the strategic role of ICT and its integration into business processes may lead to comparative advantages. Nevertheless, business processes are so interwoven that the technology in the organisation cannot be distinguishable from the business processes and services that use that technology. Yet, organisations still often only automate existing business processes rather than use the ICT to completely redesign business processes. The latter is especially significant for e-government initiatives.

Electronic invoicing (eINV) presents additional possibility to use the ICT for both the automating and redesigning business processes. Therefore, several initiatives at the European level have been raised in order to facilitate the eINV environment. The first January 2015 was a milestone for Slovenia in the field of IT support to business operations. The Regulations provided that eINV is compulsory for the whole public sector. In addition, it is anticipated that also all other organisations outside the public sector will follow this initiative.

Therefore, all domestic suppliers of government and public administration have to submit only electronic invoices. Since not every “e-initiative” is successful, the purpose of this paper is to examine the effect of using eINV on the business process performance, to analyse whether business processes were merely automated or also redesigned and to outline the advantages and disadvantages of eINV. Transition to e-business requires vision and the organisations should not focus on paperless operations only, but should also rethink the processes.

The paper is divided into five main parts. It begins by examining the theoretical background on business processes, eGovernment and eINV. Second, the regulation of eINV in some other countries is described, followed by the introduction of eINV in Slovenia. In the fourth part, the impact of eINV on business and Public Administration is presented. In the last part concluding remarks with future research opportunities are outlined.

2. LITERATURE REVIEW

2.1. Business processes and business process management

Business Process Management (BPM) is set of organizational principles and methods intended to organize, manage and measure particular organization focusing on its business processes (Harmon, 2014). BPM was introduced more than 20 years ago; however understanding the concept still varies amongst academics and practitioners (Reiter, Stewart, Bruce, Bandara, & Rosemann, 2010). BPM generally refers to the improving, managing and controlling essential business processes” (Jeston & Nelis, 2006). Due to several failed projects in organisations the interest in BPM is growing in both practice and research (Houy, Fettke, & Loos, 2010). Business processes are becoming more and more important since they present a way to achieve and attain value for internal and external customers (Melão & Pidd, 2000).

BPM has been regularly ranked as one of the main priorities for top managers in organisations (Johnson & Lederer, 2010) since it can bring long-term competitive advantage (Gartner, 2006). The attractiveness of BPM enables a holistic approach to the organizational transformation since it includes methods from different fields including management, engineering, IT and thus enables a complete approach towards organizational renovation. A lot of research has shown that organizations can improve their performance by focusing on the process view and emphasizing business processes (Davenport, 1993; Sidorova & Isik, 2010; Skrinjar, Bosilj-Vuksic, & Indihar Stemberger, 2008).

BPM assumes that organizations have several core business processes that add value to customers, and different support processes that are invisible to external customers but important for performing organizational operations (Rummler & Brache, 1995). However, BPM as a quite new discipline still needs academic agreement upon conceptual framework (Møller, Maack, & Tan, 2008) and alignment with industry needs (Indulska, Green, Recker, & Rosemann, 2009).

Highly tied to BPM is process modelling or process representation particularly when redesigning processes since the main purpose of modelling is to facilitate understanding of business processes by involved users, and to support process management (Curtis, Kellner, & Over, 1992). The focus of process modelling is generally on costs, resource utilization or on the automation level where detailed specifications are needed (Decker, Dijkman, Dumas, & García-Bañuelos, 2010).

2.2. eGovernment

The essence of eGovernment is to radically change the ways and mechanisms of operating the administration and, as a result, the basic principles on which these mechanisms have been developing in the last few decades or even

centuries. Governments are trying to adopt concepts and managerial practices that are widely used in private companies (i.e. business process renovation) in order to reduce public spending, improve the quality of service, and cut business process execution times (Jones, Hackney, & Irani, 2007).

Although eGovernment has received much attention from the fields of academics and business, the success of eGovernment projects remains limited. Further, the literature reports that critical factors that enable citizens to adopt eGovernment are still to be confirmed (Shareef, Kumar, Kumar, & Dwivedi, 2011). In spite of this, many papers in leading research journals display a naive optimism by simply regarding IT as a good thing and ignoring the evidence of the definitional vagueness of the eGovernment concept, the oversimplification of eGovernment development processes within complex political and institutional environments, and the various methodological limitations that result in the widespread failure of eGovernment (Bannister & Connolly, 2015; Hardy & Williams, 2011).

Nevertheless, eGovernment implementation is only achievable if it is introduced together with the business renovation of the public administration and also private companies (Groznič, Kovačič, & Trkman, 2008). However, one of the main problems in eGovernment remains the renovation of internal business processes. Realization of the goals set by any e-initiative is less possible without business process modelling and renovation (Groznič & Trkman, 2009).

2.3. eInvoicing

E-Invoice is an invoice for the goods delivered or services performed issued to the debtor or recipient in electronic form and equivalently replaces an invoice in the paper form. Recipient of an e-invoice is a budgetary user or legal entity or individual person. An e-invoice is therefore considered as a document that contains mandatory elements regardless of how the document is originally called (invoice, credit note, debit note, advance payment invoice, payment request...).

3. REGULATION IN DIFFERENT COUNTRIES

According to the report of the International Market Overview & Forecast there are almost no changes in the last two years regarding International eINV market. A global situation of individual countries in the world in the field eINV is presented in the Figure below.

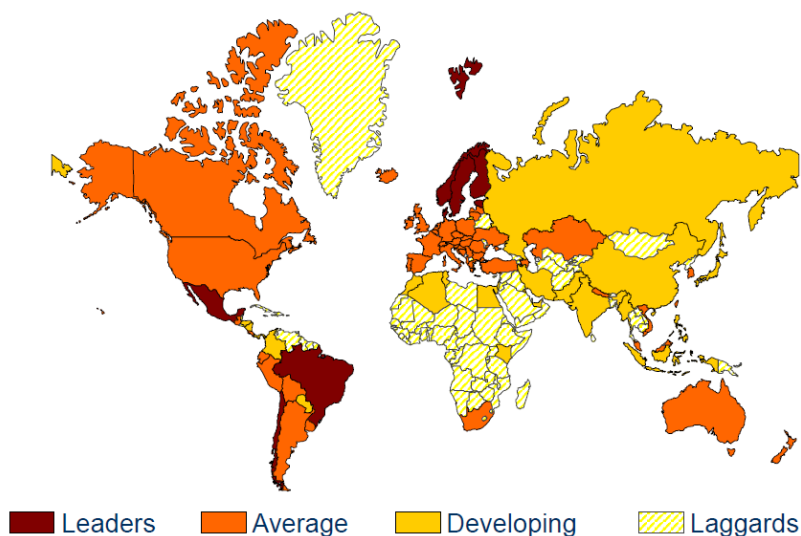


Figure 1 International E-Invoicing Market

Source: (Koch, 2015)

Slovenia is not among the first countries to introduce eINV, though eINV is still not settled in many countries. Founding the system in Slovenia is based on its own experience of the Public payment Administration (PPA) in Slovenia and the experience of foreign countries. However, there are substantive differences among countries where eINV is already settled. Therefore, an important task is to further regulate and arrange the exchange of eINV with other countries – making the system comparable.

3.1. Finland

Finland is a leader among European countries regarding eINV. The country started with eINV in 2003 with the B2B interface, while B2C interface was introduced in 2007. They started with a single simple standard called "Finvoice" which was improved in years. In Finland each company is connected into a network through one "intermediator" who maintains connections with others and enables to exchange information within this network. They also maintain unified content requirements in order to send and receive eINV over the network irrespective the source or destination format of the data.

Networked eINV model is based on bilateral agreements (standards and technical demands) between a network of declared e-invoice intermediators

(service operators and Finnish banks). However, the use of eINV is relatively good in B2B segment but B2C still has a low penetration stage (Anon, 2013).

The research has shown that banks should invest a lot of effort in order to convince consumers to use eINV. Individuals namely accept such changes only when it is required or they do not have any other, or where significant savings in comparison with conventional accounts are evident (Horvat, 2014). Therefore, it is evident that companies in Finland perceived the business benefits when shifting towards automated processes.

3.2. Denmark

In Denmark, the initiative for introducing eINV was done in the public sector. It was stated by the law that from the February 2005 all 44.000 organizations must issue invoices to the public sector in electronic format only. The public sector annually receives approximately 18 million accounts, so it was expected that the process of receiving invoices annually saves from 120 to 130 million eur. The eINV initiative was part of the project of public administration digitization, with the purpose to improve the efficiency and quality of public services including fewer errors, faster implementation and lower labour costs.

Issuing and receiving electronic documents within and with the public sector is based on generally accepted XML standard and Danish Standard OIOXML (Offentlig Information Online). Compulsory elements of eINV must consist of EAN - Location Number of public institutions, Number of requests for tender or contract, Contact number or reference and Internal account number.

Invoices are issued according to the information technology that is available, namely: (1) directly from the IT system via VAN network to the public sector, (2) using a web portal where with a username and password allows users to create invoices and electronic submission or (3) issuing invoices in paper form to the service provider scan, which converts it into e-form with all the required information and send to the relevant public institution. This service allows national and foreign organizations without appropriate information technology to cooperate with government institutions in Denmark.

3.3. Norway

The Norwegian public sector eINV project started in 2009. The infrastructure for eINV is based on the standardisation framework and specifications developed during the PEPPOL (Pan-European Public Procurement Online) project (Ciciriello, 2014).

According to PEPPOL the main success factors of the Norwegian approach to eINV are regulatory measures, EU-wide interoperability and connectivity through PEPPOL. In July 2011, it namely became mandatory for all

central government entities to receive invoices electronically in a standard format, while in July 2012 it became mandatory for central government entities to require their suppliers to invoice them electronically using a national implementation of the PEPPOL specifications (Ciciriello, 2014).

This approach is replicable outside the Norway since business processes and the technology that is implementing these processes are aligned with European-wide business requirements. Therefore a Member States can replicate the Norwegian realisation with a lower risk. Some of the countries already implementing the PEPPOL approach for eINV are: Austria, Denmark, France, Ireland, Italy, Netherlands, Poland and Sweden.

In the last years there is a 20 per cent annual growth in the use of eINV in EU. Nevertheless, the EU Digital Agenda has set itself the goal that by 2020 companies and individuals in the EU should gain maximum benefits from the e-business. Moreover, the reason for this growth is also in the increased use of e-procurement in the public sector within the EU which requests the use of eINV (Horvat, 2014).

3.4. Advantages of eINV

Advantages are quite similar in all countries that started with the eINV initiative. The main advantages refers to reduced paper consumption; more secure sending comparing to traditional methods; faster operation due to automated data exchange accounts; more transparent working with accounts and more control over the accounts; reduced number of errors because transcribing the data is not required; working with the accounts is fully automated including receiving invoices, posting in the document systems, posting the entries in the accounting system and preparing the payment journal. eINV also allows simple audit traceability. Moreover eINV enables lower operating expenses due to less paper consumption, less or no postal services and less manual work. Besides that, there is no need for large physical archives since documents are stored in electronic form. Any organisation can significantly improve, refine and upgrade its operations with the above advantages.

Some calculations suggest that the plain paper invoice cost a company up to 14 euros including the cost of equipment, labour and infrastructure, while the electronic invoice costs a company only 1 euro (Varga, 2014). Yet, selecting proper solutions for the issuing, receiving and storing e-invoices is of a great importance. Besides, additional investments for implementing eINV, various problems in the transition process that are making eINV more complex, should also be considered.

4. E-INVOICING IN SLOVENIA

4.1. Legal basis

In December 2013 a new Act on provision of payment services to budget users (ZOPSPU-A) was adopted. The novelty that was brought by it was that budgetary users will have to receive invoices and attachments only in electronic form. Consequently, all service or good providers for budget users will have to use eINV

The new Act defined that the budget users can send and receive e-invoices only through the PPA. The PPA is therefore both an entry and exit point for the exchange of e-invoices with budget users. The new Act also defined the standards and terms of the exchange of eINV through a single point at the PPA including that (1) the exchange of e-invoices for budget users is carried out only through a web application PPA.net; (2) e-invoices must be in the form of mandatory eSLOG, which is a single standardized format for e-invoice in Slovenia; and (3) e-invoices are obliged to be signed with a digital signature.

4.2. Difficulties in the transition to the new system

Many organisations had problems because their focus while introducing the support for business with eINV was only on the developing solutions for eINV by Slovenian standards (eSLOG) and their transmission to the PPA. At the same time they forgot to three particularly important things to comprehensively solve the problem:

(1) Dealing with e-invoices will be extended to all entities in the economy, to all enterprises as well as consumers. Experience of countries that introduced eINV before Slovenia indicates that such laws encouraged the entire industry to accelerate the transition to eINV. Companies should therefore provide the support of sending e-invoices to existing and prospective customers. Companies that have support for eINV tied to transmitting via PPA only, will shortly have to make additional changes.

(2) The requirement for automating internal processes. Providers of ERP systems focused primarily on the e-invoicing module in their solutions forgetting that organisations have other procedures of receiving and issuing invoices. It is reasonable that organizations are introducing the system for closing and confirming invoices; however the solution should also cover those invoices that are received in a paper format. Therefore, if any organization should have a complete control and overview, a single uniform system for confirming invoices should be developed. Redesigning business processes may also be needed.

(3) Archiving. Under the Law on Value Added Tax, each issued and received invoice must be kept ten calendar years, while some particular accounts should be kept even longer. Consequently every budget user had to

provide by law compatible electronic archive, establish by him or hired from one of the archive providers.

4.3. Issues with implementing eINV in Slovenia

Beside several advantages of eINV already presented there are also some disadvantages or problems related to eINV. The first issue refers to “The European eINV” since Slovenia will have to adapt its own standard (eSLOG) to EU requirements by 2017 which will present additional work and confusion for organizations. The issue is related to too simplified standard eSLOG since due to the desire to maximize ease of use for small businesses and entrepreneurs too simplistic form was chosen. Therefore, special features such as securities, different currencies... present an important issue. Moreover, foreign IT developers willing to adapt their solutions to the new laws and requirements, have problems since the instructions for using eSLOG are not in English. PPA did not provide the money for such a project. Additionally, eSLOG did not foresee entering various special items related to doing business abroad, which led to difficulties for exporters and importers.

In the beginning the portal for e-invoices at PPA was not available for users using Mac and Linux. The issue was solved in three months; however considering continuous business it presented inconvenience for many organizations.

4.4. Examples of good and bad practices

Primary School DBV (name is fictional) was prepared for eINV before 2015. DBV believes that eINV is much simpler than traditional invoicing and is also accelerating the processing of invoices. Besides, the software they are using is very simple to use, even for those who are not skilled in the use of computers, as caretaker, cooks and cleaners.

Prior to the introduction of eINV employees often went to the Secretariat, where the secretary had to look for the invoices in different folders. With the introduction of eINV they have better control over invoices waiting for validation, which means that they can timely remind certifiers.

With the transition to e-archiving they had to unify also some internal rules, since beside archiving procurement documentation and issued invoices DBV wanted to e-archive also the rest of the received mails and other business documents including payrolls. All these factors have contributed to automating processes and to easier and faster operations.

However, the transition to the eINV in certain municipalities caused quite a few problems and additional costs. Municipality “T” already spent 6.000

euros just for upgrading software programs, while computer replacements was also needed since not all were suitable for processing e-invoices.

Municipality "II" paid around 12.000 euros for purchasing new software, including installation, deployment and education. Software Maintenance is costing the municipality 190 eur per month, while they have to pay for archiving the documents additional 100 eur. The municipal administration did not have any particular problems of introducing eINV, but they do not understand why the state introduced a system for one segment only. As a municipality they receive invoices electronically, while several claims by other associations or public institutions are still in printed form. The same applies for all claims the Municipality "II" is sending to the government.

Poor instructions distracted employees in the municipality "III". PPA had namely sent the wrong settings to IT developers. Moreover, PPA did not prepare any instructions for the practical examples, such as accepting a credit note, rejecting invoices, accepting invoices related to the previous years... For every issue they had to ask the support service at PPA where different consultant had different opinion. Besides, they expected that PPA would build in controls for checking the correctness of the invoices, but it was left to the sender (Vidrih, 2015).

5. E-INVOICING AND ITS IMPACT

5.1. The impact on business

In the market there is a flood of services and solutions that enable users issuing or receiving e-invoices. One of the main problems small farmers, craftsmen and entrepreneurs encountered in the beginning was issuing a small number of invoices per month and consequently not using IT. It is possible to authorize another person or organisation such as their accountants; however users that are defined as "small publishers" can enter only five e-invoices per month via PPA portal.

The majority of small or medium-sized enterprises in Slovenia is already using IT support for their business, so they only need to upgrade or adjust their software for e-invoices to comply with the standards eSLOG. It is estimated for the companies that sending or receiving from 1.000 to 10.000 invoices per year can reduce costs by using e-invoice by 10 to 15 cents per e-invoice. In Company A (dealing with the water supply) the cost of sending invoices was significantly reduced. The price of printed form was 0.4, while e-invoice cost them 0.04 euro (Vidrih, 2015).

Companies issuing a large amount of monthly invoices are striving towards full automation because they want to regulate the work of e-invoices in the document system, applications, or in the entire information system so that it will automatically do most of the work.

E-invoices have been adopted differently among the employees; however mixed feelings are normal for any novelty. During the transition to the new systems a proper communication and demonstration of the added value in the eyes of the user is extremely important. Employees have recognized the benefits mainly in spending less time on each activity and reducing the number of errors due to manual input of data. Besides, e-invoicing significantly reduced administrative tasks.

However, organizations should standardized internal rules for work or redefine their procedures. Particularly in smaller companies a desire to standardize processes is evident since the entrepreneur does not want to deal with bureaucratic tasks, but to devote its time to his core business (Varga, 2015).

5.2. Adapting to the new system and changing business processes

All organisations issuing e-invoices had to arrange everything necessary to send and receive e-invoices and to agree with their customers regarding other ways of invoicing. E-business presents a great opportunity for each organisation to rethink its business strategy and to make necessary organizational and procedural improvements. Companies that have successfully managed this turnaround will gain a competitive advantage since they will be more responsive to customer requirements on the local and global market. Nevertheless, e-business facilitates the automation of business processes and creates new innovative business models.

eINV is reducing the time needed to perform a traditional task and therefore accelerating the work. It would be reasonable to transfer these advantages to the whole supply chain. Extended exchange with partners, vendors and customers is presenting an additional added value to the business.

5.3. Implications for the Public Administration

In the first two months after the introduction of eINV there was 609.000 invoices exchanged via PPA portal, of which 549.000 were given to budget users in accordance with the provision of payment services to budget users. This exchange was actively supported by the PPA, banks and 43 providers of electronic channels. Quite a large number of issuers (13.117) registered via the PPA portal for issuing e-invoices, releasing 26.300 e-invoices.

Active use of the system also revealed some shortcomings which are trying to be continuously eliminated. Many e-invoices were also rejected by the recipients because they were not accompanied by the visualization; however visualization is not legally mandatory appendix to the e-invoice. Moreover, in the

beginning organisations repeatedly send the same invoice several times given the fear that the procedure was not carried out regularly.

6. CONCLUSIONS

E-invoicing in Slovenia is only the beginning of a new era and presents a possibility to use IT for automating business processes. In the last decades there were several failed IT implementation projects and management often considered IT department merely as a support function, whose only goal was to automate business processes (Dos Santos & Sussman, 2000). As a result, companies often only automate existing business processes rather than using IT to redesign the business process (Kovačič, 2004). The same applies to many “e-initiatives”. Therefore, the paper examined the effect of introducing eINV in Slovenia on business process performance.

Since the eINV initiative in Slovenia was introduced only a few months ago, it is difficult to estimate the true impact on the business process performance. However, it is evident that the majority of organisations are using eINV merely to automate the existing processes without rethinking or redesigning them. The paper also considered financial consequences where savings will be evident in the longer period since many public organisations firstly needed additional investment in order to successfully implement eINV.

Nevertheless, all this investments are not a sufficient factor for improving organisational performance. Without properly integrating IT into business processes and constantly rethinking their efficiency, organizations will hardly obtain or retain comparative advantages and remain efficient. Therefore, future research and detailed case studies are needed in order to constantly monitor to what extent organizations are using IT to merely automate exiting processes and forgetting about their redesign.

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E-BUSINESS AND ITS APPLICATION IN KOSOVO

JEL classification: L15, L63, L86

Abstract

The development of Internet Technology has enabled the development of economic branches that use the Internet to realize a successful business. So the internet has influenced in the creation of a market which is growing so quickly as by doing business but also in the communication between consumers and business partners. Nowadays, almost all companies have access to the Internet and most of them use the internet to sell their products or provide their services across the world. This way of doing business is called "e-business" and refers to all forms of business that are conducted online. While for Kosovo, which is my case of study e-business is a new field and almost unknown to a large part of its residents. The Kosovars are known as very large users of the Internet, but they have not yet gained the culture and the trust to begin with purchases and sales through internet. Best known model of e-business in Kosovo is the e-banking, although we can see some small movement towards the development of other models despite the lack of market for this area of business.

Key words: electronic business, information technology, e-business models

1. INTRODUCTION

With the spread of global communications, the Internet and the business world has changed the way of her work. The Internet has played and plays a major role in business development, using it as an instrument which transferred and formed a huge global market. The Internet has created an opportunity for the advancement of organizations working on a broader market, reducing costs, increasing their efficiency, by meeting customer needs and increasing cooperation with their partners and competitors.

The XX century is known as evolution, evolution in all fields, especially in electronics and information technology field. With the introduction of new electronic tools headed in a direction the world took another. Electronics and computers give a contribution to the development and progress of economy and business.

So e-businesses using Internet technologies to improve productivity or profitability of the business. E-business is significantly changes the economic structure, market and industry, market values, products and services and their turnover, customer profiling, customer behaviour and labour market (Gottschalk, P., 2006), (Turban, E., 2002), (Svedic, 2004). With the introduction of new electronic tools the world took a different direction. Also especially electronics and computers give a contribution to the development and progress of economy and business. In today's economy based on economic growth is knowledge, education, innovation, scientific research and the use of computer networks. In this society of information and knowledge, they have earned the role of power as well as money and are doing things to be desired by all enterprises as never before. We are experiencing a business world in which almost all companies today are doing business electronically, such as banks, insurance companies and venture companies which provide a variety of services. Simply, e-business in a way or another is a common and indivisible in the course of the majority of enterprises. The global nature of business and advances in communication technology has forced corporations to apply new technology to business in order to remain competitive (Kavitha, S., 2012), (Jelassi, T., 2009). In recent years, electronic business has been adopted by many corporations to improve efficiency and strengthen their competitive position. So, through the internet or online business, we can say that represents the efforts of a company to be competitive, to market its products, its services, and to build relationships with customers via Internet.

2. BACKGROUND OF THE DEVELOPMENT OF E-BUSINESS

As a result of technological development and the increasing importance of the Internet has been a drastic change in the development of economic branches where it was realized a successful method of doing business. The

Internet has created a market that is developing rapidly and has enabled communication and contacts are carried out quickly and easily between people and business partners. Beginning of e-business dating back to 1970, when large companies began to create their own private networks which enable them to deliver information to business partners and their suppliers. This process known as Electronic Data EDI and was broadcast Interchange- streamlined and standardized data in the procurement process between businesses. With the advent of the World Wide Web or "web", traditional business organizations that were based on sales through catalogue enabled a new method of sales. In (Doci, 2010, p24) we notice that nowadays the web is considered as the best place to put information to service clients, such as manuals and guides as well as well as a place that helps to create a consistent corporate image .

Businesses began to use internet marketing sites immediately after the design of web pages with graphic content in early 1990. Most of these sites have served to give visitors basic information about the products and services of the company and included contact information, such as phone numbers, addresses and e-mail, so that help customers to contact a company for services it provided.

The meaning of the term "electronic business" has changed over time (Beheshti, 2006). As it is mentioned above originally referred to commercial transactions in electronic form or EDI technology, which was used to send commercial documents in digital form. Following then added other functions, from buying products or services using the WWW (World Wide Web) then using secure servers to exchange the realization of online payment such as credit card payments.

3. USING THE INTERNET IN KOSOVO

With the Internet we can communicate with anyone and from anywhere, we can read, can be educated, can informed, can buy and sell goods and services, pay various bills, to publish, to download, to study the interface vocational training and other daily things of science, technology, culture and many good information needed. Besides the numerous benefits that the Internet brings to people, there are also that who use the internet for harmful purposes, not moral, but after this entire one thing is very clear that today we cannot imagine a world without the Internet (Doci, 2010, p24).

Kosovo Regulatory Authority (ART) regularly collects information regarding Internet penetration of Internet service providers through a questionnaire, which meet every three months. ART is the official source of information about the state of telecommunications in Kosovo (including Internet penetration), and serves as the main source of information in this sector for different companies and institutions, global and regional.

Kosovo is known for its high use of the Internet, figures which are the same in many countries of Europe and in the Balkans, Kosovo ranks fourth behind Greece, Croatia, Bulgaria, and is before Albania, Macedonia and Montenegro.

The following are present some data on Internet usage in some Balkan countries, which are derived statistics at the end of 2013.

Table

Internet use in several Balkan countries / Europe

	Residents / 2014 Estimates of Internet Users	December 2014%	% Penetration
Kosovo	1,859,203	1,424,149	76.6%
Albania	3,020,209	1,815,145	60.1%
Bosnia	3,871,643	2,628,846	67.9%
Montenegro	650,036	369,220	56.8 %
Macedonia	2,091,719	1,280,132	61.2%

According STIKK (Association of Information Technology and Communication), a factor that explains this high degree of Internet penetration in Kosovo is the unregulated market of internet services provision. The other fact, no less important, is the diaspora of Kosovo, which wants to maintain links with their families in Kosovo, and therefore provide computers and perhaps cover the costs of connecting to the Internet for them (Doci, 2010, p24)..

The data show that currently 52% of households of the study participants are provided with a laptop or desktop computers (Cohen. A.2011),(Chaffey, D., 2009). It is important to note that 37% of households are in possession of a second computer, and that nearly 9% of them have even a third computer. Note that possession of computers in Kosovo is lower than in European countries, where the proportion is 68%. However, Kosovo has figures comparable with other countries in the region, such as Romania (53%), Hungary (54), and Greece (55%) (Doci, 2010, p24), (Svedic, 2004).

4. E-BUSINESS ENTERPRISES IN KOSOVO

From the beginning into its transition to a market economy, Kosovo is constantly faced with obstacles of different nature that, in one way or another, reflected in the business environment and as a result has prevented the development of the private sector in the country. Despite some recent reforms, Kosovo still ranked 86th out of 189 countries in the Doing Business Report of the World Bank in 2014, worse than all neighbouring countries except Albania. Macedonia, for example, ranked 25th, or 61 positions higher than Kosovo.

Moreover, Kosovo's businesses operate in an environment of unfair competition, corruption, non-functioning judicial system, and other harmful factors, constitute "the dominant rules of the game". This unfavourable business climate has been a burden for existing businesses to Kosovo (54% have decreased their sales), while at the same time sent a negative signal to potential foreign investors, reducing the flow of foreign direct investment (FDI).

Electronic business is a reality and represents an opportunity which is current for business development on a global scale. But e-business is not yet applied in Kosovo and the country still has not have the necessary infrastructure for the development of complete electronic business, although there are some initiatives for the development of e-business in the country.

Knowing the past through which Kosovo has passed it is very natural that Kosovo lags behind in terms of the use of information technology. But Kosovar enterprises in recent years, there is a positive indicator in the increased use of computers and the Internet. This is encouraging and demonstrates that the business community has realized that in modern conditions for business development, creation of a company's trade image, identity creation and promotion of business, the use of the Internet has a special significance.

Moreover, some companies have developed their online services, which make their business more quickly to consumers (Jackson. P, 2003). However, although in the world of B2B business model of electronic business has great use, in Kosovo this type of business, it has not yet become a reality, and there is very little movement, which are set for the development of this type of electronic business.

Using the Internet and other electronic services by Kosovo businesses it can be considered that is at the stage of education of the population. Using the equipment of the time that more than anything reduces cost and time of a business activity, it remains a form still very limited for many reasons subjective. This has to do not only with the location of the business, or that they have access to various services and internet, but is also related to the facilities offered and the cost of installing these services.

A slightly larger development of electronic business in Kosovo is going from banking institutions, which have developed their services and e-banking. With the development of e-banking for conducting online services, banks in Kosovo have increased the prices of services which are carried out their points, and this is done with the aim of encouraging their customers to use e-banking for conducting transactions different.

While other companies, not financial institutions in Kosovo model developed e-business is the model of e-shop, where several companies now have presence in Kosovo online with their websites where from their customers can custom make goods. Some of these companies are: Topshop-Ks, Smart-online, Maxi hypermarket, ecommerce and commerce24.

Following my paper will speak and will present some of the first companies that started to use electronic business models, will also speak for e-banking and its development in Kosovo banks.

4.1. Electronic market in Kosovo

Electronic commerce or e-commerce represents the processes of purchase, sale, and exchange of products, services and information through computer networks using the Internet. Electronic commerce enables contact directly with customers or business associates without having to open any new branches or representative offices. In the e-commerce world has for years used and the amount of transactions carried out through e-commerce achieves very high amount. Global trends of development of e-commerce had a continuous growth and developed day by day even more because of the benefits that this model of e-business offers.

As far as electronic commerce in Kosovo, unlike countries of the world, the experience of doing business through electronic commerce is still lacking and I can say that this kind of business is only in its beginning. In Kosovo there are some companies who have begun the implementation of electronic commerce although it is still at an early stage but the business as a business is not yet fully established as a business which deals with electronic commerce. Many companies have access to the Internet with their websites where customers can see their updates and services that they provide.

In addition to providing e-banking services to clients, ProCredit Bank Kosovo is the first bank in Kosovo which provides businesses and traders in Kosovo the possibility of selling their products and services on the Internet. Through this service, businesses can accept payments from all VISA cards.

Service e-Commerce will open entirely new opportunity sales and will enable Kosovo businesses placing their products and services to a large audience in the country and the region. This is a very efficient way to increase the sales in a very efficient manner, promoting products or services on websites and accept online payments in order instant. Any business that wants to expand sales on the Internet through the services of ProCredit Bank is likely to become part expressed interest to business consultants dedicated to their business.

With security platform support 3-D Secure (Verified by Visa), ProCredit Bank creates a safe environment to launch the first steps of this activity in the Kosovo market. From the perspective of card holders in Kosovo launching e-commerce service implies the addition of a new and very convenient to purchase products and local service from their home or office 24 hours a day, seven days a week. Security technologies used prevents storage of personal data of the card by third parties.



Figure 1. ProCredit Bank- E-commerce

ProCredit Bank will continuously efforts in cooperation with local businesses to create as much value for citizens in Kosovo cards, enabling payment of as much as products and services from the Internet.

4.2. E-banking in Kosovo Commercial Banks

For conducting electronic transactions, the first step that must be taken is the opening of bank accounts by the customers. According to some statistics in Kosovo which are issued by the CBK (Central Bank of Kosovo) the number of people who have bank accounts is washed.

In Kosovo today operate nine commercial banks account for 72.6 percent of total financial sector assets (Doçi, I., Ramaj, V., 2009). Products and services include bank accounts, loans, domestic and international payments, bank cards, bank guarantees, letter of credit, e-banking.

Access to services provided via these banks currently 305 branches and sub-branches, 493 ATMs and POS 9.039 and 113.171 e-banking accounts.

14 ATM-s first in Kosovo have started work in 2002 and in 2012 this number reached 483, while the number of POS see who are operational in 2005 by 8.592 1.046 reached in 2012 (Beqiri, E., 2002).

In (Doçi, I., Ramaj, V., 2009) it is mentioned that the number of credit cards from 11.139 in 2008 reached 95.942 in 2012, while the number of debit cards from 105.713 in 2008 has reached 599.651 in 2012. The number of bank accounts with e-banking service in 2005 was 837 while in 2010 this number was 55.292 and in 2012 this number increased to 97.089.

Based on (Doçi, I., Ramaj, V., 2009) during the last years in Kosovo are:

- *ATM* - 497
- *POS* - 8.550
- *Credit card* -102.639
- *Debit Card* - 628.173
- *e-banking accounts* -121.806

Increasing the number of use of these instruments is in proportion to the increase in the number of inter-bank payments in Kosovo, a fact that speaks to the continued growth of confidence in the banking system and massive use of payment instruments.

5. RESEARCH

Periods that Kosovo slip and the current state of its economic development, companies operating in this country and certainly not enough space for the realization of their business, when I say this not only for electronic business is to develop business in general.

The business climate in Kosovo occur as companies and enterprises operating in an environment where they are present unfair competition, corruption, non-functioning judicial system and other harmful factors, which led to these organizations to lag in the way of doing business.

In addition to these that i mentioned above, these factors are causing huge loss to companies and self-Kosovo economy. These negative factors are affecting the terms of foreign investment in Kosovo although a significant number of foreign investors, but it is losing their faith, the opportunity of globalization of Kosovo companies and their cooperation with other international or regional companies.

Number of registered businesses

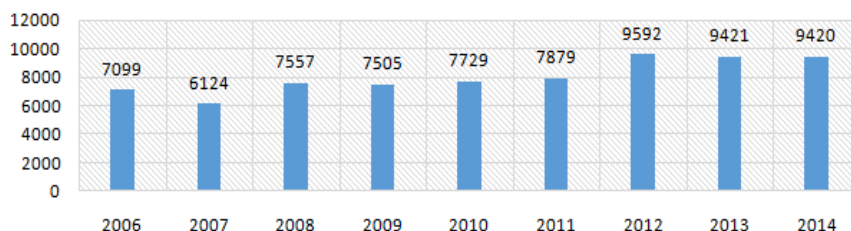


Figure 2. Number of registered businesses 2006-2014

The data gained from this research are used to show and prove my hypothesis and especially the second hypothesis that “*Kosovo is not on par with European countries and regional e-business application*”. For this hypothesis we rely on development of businesses in Kosovo and also in its current economic situation.

Also through this research we show the current state of Kosovo businesses in relation to electronic commerce. We notice the interest of businesses to apply this business model and the globalization of these businesses.

5.1. Different profiles of companies

Profiles of interviewed companies which were different from ranging from online stores that are located in Kosovo, banks, companies dealing with information technology, insurance companies, agencies, construction companies and businesses that deal with the sale of various products electronic, electrical, clothing, food etc.

Table.2

Profiles of companies expressed as a percentage

Profile	Percent
Banks	24%
Information technologies	28%
Online stores	20%
Others...	28%

Persons who have aimed to interview have been responsible for the information technology department, but because many businesses do not have such a department, interviewing the manager have performed well and in some cases companies with business owners because they had the role of managers in their companies.

Table.3

Contact persons expressed as a percentage

Contact persons	%
Manager of the Company	60%
The owners	28%
Others	12%

5.2. Registration of companies

Regarding the year of establishment of companies interviewed most companies are established or registered after 2000, because as we know until that period of time, Kosovo was in a state of severe political and economic, but thankfully after this period no changes many large companies began their work in Kosovo. Following chart shows the year of registration of businesses interviewed.

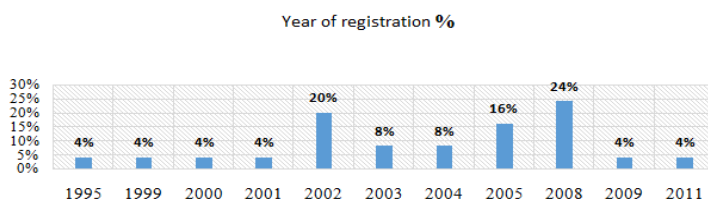


Figure 3. Year of registration of companies expressed as a percentage

Among the most successful companies in Kosovo are also businesses that deal with the provision of internet services, mobile telephony and cable television. Their performance of the business is very high because the services that they provide are very satisfied their customers. Also high performance of business in Kosovo are financial institutions to some extent the companies which offer services online through the Internet.

So here it was the first part of the questionnaire that restrained only questions about the business, and we would like to continue with the analysis of the second part of the questionnaire concerned about electronic business in these companies. Among possible questions that are presented in the questionnaire were the following:

- *What is the importance of the computer for your company?*
- *Do you have internet access?*
- *Do you have a department / person responsible for information technology?*
- *The number of employees in your department's IT?*
- *How communicate with partners / customers your business?*
- *Do you have a web site?*
- *Who initiated the creation of web pages?*
- *The main reasons that created the website?*

5.3. Integration of electronic business in Kosovo

Integration of electronic business by Kosovo companies is still only at the beginning or in its infancy. E-banking is one of the most popular forms of electronic business in Kosovo, the model that is adopted by almost all the banks operating in Kosovo. Of these banks as I mentioned earlier the only ProCredit Bank has started with the application of electronic commerce or e-commerce.

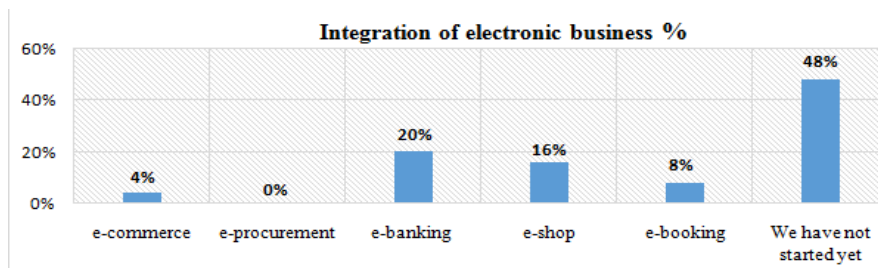


Figure 4. Integration of electronic business of the companies surveyed, expressed in percentage

That proved to be successful as this / these models of e-business for your business?

- For payments / transactions, from your business customers, which use more methods?
- If you have not started with the integration of e-business or electronic commerce, which is why tell you?

In the near future will begin with the application of e- business? In Figure 5 we show the answers in percentage.

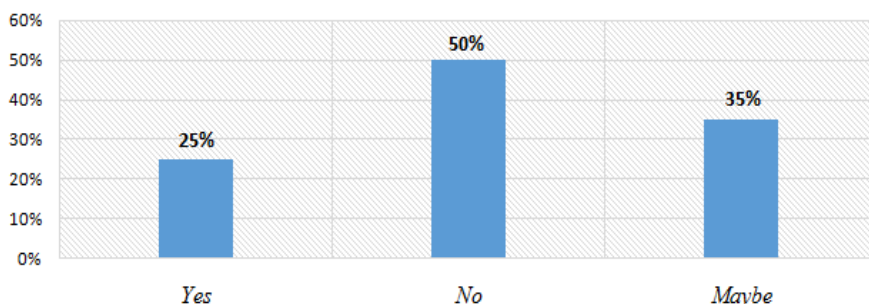


Figure 5. Will start the application of e-business in the future expressed in percentages

CONCLUSION

The Internet has radically changed business activities. These activities such as buying, sales of products, links between companies, customers and between two or more organizations are being digitized everyday more and more. Although the success of these efforts is not guaranteed, the business landscape indeed is being digitized and as such will continue to offer to businesses and companies more possibilities to change in their way of doing business.

Since 25 years ago, the commercial Internet has grown and has become a technology with general purposes, whose influence has already left an indelible mark on history. Still moving forward, we should expect to see even more because the adoption of the Internet continues to grow globally and its connective technologies every day are improving their quality as well the performance. Perhaps some experts have right, because they believe in that the revolution of the Internet now in our time is less than 15 percent of its full utilization.

The internet has begun to be used for purchasing and other commercial services. Buying via the World Wide Web, also known as e-commerce has already become common practice. There are many websites which offer this type of purchases. Simply Internet has enabled new business models for companies, has increased the number of products, services and from all these opportunities significantly was increased comfort of consumers and in dramatic way is grown the quality of their life.

With a very high speed banks started to perform services online for their customers. They through these services can purchase, can order products from around the world, pay bills, check own accounts and provide loans and many other transactions. Manipulation with published data for purchases is quite simple. Payments are made through different tabs that allow purchases from a distance, without cash in hand. For this reason special attention being paid to data security for customers who commit bank purchases through the Internet.

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THE MAP OR THE REALITY? HOW LEVERAGE EFFECTS OF TIME LEAKAGES DISTORT KEY RATIOS IN INFORMATION ECONOMY

JEL classification: C 300

Abstract

This paper addresses specifically leverage effects based on the irreversible nature of time and the Cognitive Time Distortion in economy. In service - and information society, time has received an ever increasing importance, not from the perspective of faster production, but due to the fact that the major part of the economic value of Total Revenues and Total Costs is based on time. In this paper, we demonstrate new mathematical mechanisms in economy due to the irreversible nature of time and Cognitive Time Distortion, and we explore their lever effects. It is presented that the lever effect on return on capital employed may rise to many hundred percent of budgeted outcome. It is concluded that even moderate cognitive time distortions cause substantial deviation in budgeted profit as well as it proves to be a mechanism to large delays. The lever effect due to the time perception is an ever present distortion of a true economic outcome.

Key words: leverage effect, time perception, information economy

1. INTRODUCTION

It may be a self-evident statement that economic information of today mostly is about unexpected deviations of the outcome from an unspoken point of reference. There are few who are astonished to read about large profit increases, dramatic economic losses, projects that are delayed or boost of productivity. One example is the report on the Olkiluoto Nuclear Power Plant construction delays as follows:

*“The main contractor, Areva, is building the unit for a fixed price of €3 billion, so in principle, any construction costs above that price fall on Areva. In July 2012, those overruns were estimated at more than **€2 billion** and in December 2012, Areva estimated that the full cost of building the reactor would be about **€8.5 billion**, well over the previous estimate of €6.4 billion. Because of the delays, TVO and Areva are both seeking compensation from each other through the International Court of Arbitration. In October 2013, TVO's demand for compensation from Areva had risen to €1.8 billion, and Areva's from TVO to €2.6 billion. In December 2013, Areva increased its demand to €2.7 billion.”* (Wikipedia, 2015-05-07).

The Olkiluoto Nuclear Power Plant construction delays are not an exception, though the astounding management problems of the project may be attributed to political reasons. We argue for that there is a larger pattern in the society, and that similar problems may even be found in other branches of trade. In Sweden, for instance, the costs for failed IT-projects amount to circa 1 billion Euro on yearly basis, and it is assumed that the figure may be higher (Johnson & Magnusson, 2005). There is also other statistics presenting the poor precision of delivery of completed IT-projects, which exhibit a pattern in which the majority of the projects were delayed in 2008, see table 1 below.

Table 1

Precision of delivery of completed IT-projects under 2000 and 2008.

Precision of delivery of IT-projects	Proportion of projects 2000 (%).	Proportion of projects 2008 (%).
Interrupted	23	31
Delayed	49	53
Completed on time	28	16
Total	100	100

Source: Chaos Report, Standish Group International.

During the year 2000, the costs of the IT-projects in Table 1 were increased by 45 % of the budgeted sum.

Notwithstanding modern computer support for economic management and in spite of sophisticated planning tools for profit, workload and productivity,

it is difficult to understand how miscalculations amounting to billions of Euro can emerge. Can it be that *economic mathematics* – not market factors or political factors - falls short of supporting management of services? Can it be that the map – carefully developed by business management tools - simply does not correspond to the reality?

In this paper we investigate the leverage effect based on the irreversible nature of time and the Cognitive Time Distortion in economy. While the leverage effect in economy generally has been applied to real estate, stocks, bonds, commodities, currencies and other investments, we argue here for that the leverage of human perception of time and its implication to economy has so far been little investigated in research literature. We define here leverage effect as the outcome when a relatively small change of one parameter A conveys a relatively large change in another parameter B. The focus of our interest is the mediating mechanism that brings about this leverage effect.

Thus, in other words, we define the leverage effect as a relatively small change in the time perception that conveys relatively large changes in profit, project delay and other key ratios. The mediating mechanisms are the economic formulas presented in von Schéele (2001), von Schéele & Haftor (2014). We do not intend to replicate their deduction and derivation here again, but will apply them to present the leverage effect.

In this paper we assume an economic organization that only trades services. These organizations are characterized by an economy where the main delivered values are based on billed time, and the main production costs emanates from salaries – that is, compensations for worked time. The assumptions brings the economic calculus closer to the reality of labor-intensive economic organizations, with many employees performing administrative tasks, consultancy work or, for instance, work on project basis. These organizations are characterized by an economy where the main delivered values are based on billed time, and the main production costs emanates from salaries. In the information- and service society, these economic organizations make up for the majority, and we intend to investigate the leverage effect of time perception on their economy.

The paper is structured accordingly. First, we define the concepts of Time Perception and the Cognitive Time Distortion, where we also refer to previous research within the area of Time Cognition. Second, we present the mechanism between time perception and economic contract, which is the main cause to leverage between time perception and economy as counted per time unit. Third, we give a brief presentation of the mathematic formulas for Profit distortion and Workload distortion. Fourth, we give some short examples of the lever effect by demonstrating the equations with concrete examples. The paper is ended with a short discussion and conclusions.

2. TIME PERCEPTION

We now wish to introduce a crucial empirical phenomenon, which commonly passes unnoticed: this is the relation between *physical time* and *cognitive time* that inherently gives rise to the phenomenon called here *time perception and its cognitive time distortion*. The divergence between the two kinds of time is well-known in the medical and psychological disciplines (e.g. Guyau, 1890; Bergson, 1910; Block & Eisler, 1999, Levin & Zackay, 1989), yet to our knowledge it has not yet been noticed nor elaborated on by the various management sciences and the economic sciences (e.g. see Orlikowski & Yates (2002) for a recent treatment of time in organizational contexts). More specifically, perception of physical time (hereafter “time perception”) is understood here as a mathematical relation between the *cognitive time* of an individual and the *physical time* as measured mechanically by a clock, in relation to some specific event. Therefore, cognitive time is here understood as the human percept that is an estimation of the physical time (see: Bindra & Waskberg, 1956; Cohen 1967; Hancock & Weaver, 2005). While cognitive time of an individual tends to move in jerks and jumps, the physical time passes smoothly and at an even pace (e.g. Levin & Zackay, 1989). Therefore, when individuals estimate time durations they typically, unintentionally and unknowingly, commit errors resulting in significant differences between the self-assessed cognitive time duration and the corresponding physical time duration, as measured by a clock. A review of current research into time perception suggests that the gap, or error, in correct assessment of one hour may vary between 1,02 – 2,14 hours, see Table 2 for an overview.

Table 2

The mean value of one psychic hour, obtained by an individual’s self-assessment versus a physical hour.

Source	Mean value of one psychic hour t_c as expressed in physical time t_p (hrs).
Mackleod & Roff (1936)	1,22
Vernon & McGill (1963)	1,08
Siffre (1964)	2,14
Webb & Ross (1975)	1,02 – 1,05
Lavie & Webb (1975)	1,12
Aschoff (1985)	1,47
Campbell (1990)	1,12

Source: Block, 1990:5

In our previous work (c.f. von Schéele & Haftor, 2014), we suggested a mathematical definition of the cognitive time distortion as a ratio between cognitive and physical time. The definition had the disadvantage that the term

“Time perception” was not mathematically accounted for, and discussions were raised on how to include this term in the concept of cognitive time distortion.

Therefore, we here wish to clarify our mathematical definitions about cognitive time distortion by including a suggested formalization for “Time perception” as well. Subsequently, consider the following definition of Time perception τ , with reference to the physical time during the event “ i ”:

$$\tau_i = \frac{t_{ci}}{t_{pi}} = \left(\frac{t_c}{t_p} \right)_i \quad (1)$$

In Equation 1, we state that Time perception is the ratio between cognitive time (t_c) and physical, or clock, time (t_p). In appraising time perception, it is necessary that cognitive and physical time have the same *frame of reference*, and that they address the *same event*. Thus, ‘frame of reference’ and ‘event’ may signify, for instance, an activity, a process, a project, or a service contract. Therefore, more specifically, time perception, denoted here with “ τ_i ”, is defined as the ratio between cognitive time, t_c , and physical time, t_p , of a certain event “ i ”. A value of $\tau_i \equiv 1$ means that the cognitive and the physical time for a certain event “ i ” correspond exactly – which is a most unlikely event. In reality there is almost always a difference between the cognitive and physical time, thus making time perception larger or smaller than unity – therefore we say that it is distorted. The deviations of time perception from unity, we henceforth define as cognitive time distortion, and suggest the formal mathematical definition:

$$\Delta\tau_i = \tau_i - 1 \quad (2)$$

To illustrate Equation 1 and 2, consider a test person reporting that “one minute has passed *now*” (60 seconds) while the clock measuring that time period records one minute and 12 seconds on a timer (72 seconds). The test person will have a cognitive time corresponding to $t_c = 72$ seconds, while the point of reference, the physical time $t_p = 60$ seconds. In this example, the cognitive time is the length of a subjective duration, *as measured by a physical clock*, and the time perception in our example comes out as:

$$\tau = \left(\frac{72}{60} \right) = 1,20$$

The cognitive time distortion is subsequently:

$$\Delta\tau = 1,2 - 1 = 0,2$$

This means that the individual has a cognitive time distortion corresponding to 20 %, which is an *overassessment* of the passage of time. A negative value of cognitive time distortion stands for an *underassessment* of the passage of time.

When we apply the concept of time perception in economic formulas, we distinguish between the time perception of revenues, τ , and time perception of costs, δ (von Schéele & Haftor, 2014). However, here we apply a general notation of time perception as τ unless it is necessary to stress that it is related to costs.

From the definition in Equation 1 it follows that time perception, τ_i , is limited by $[0..L]$, where 'L' is a large number and that a value of τ_i corresponding to unity signifies the total conformity between cognitive time and physical time.

The time perception τ have some mathematical qualities that are important to mention:

i. $P(\tau)$ is not symmetrically distributed around $\tau = 1$, which implies that the arithmetical mean value $\mu_\tau \neq 1$.

ii. $P(\tau)$ is not Gaussian-distributed, but exhibits instead an asymmetric distribution with a long "tail" for values of $\tau > 1$ (von Schéele & Haftor, 2013).

3. THE CONTRACT EFFECT; THE MAIN CAUSE TO LEVER EFFECT BETWEEN TIME PERCEPTION AND SERVICE ECONOMY

The main reason to the lever effect is that time is *irreversible*. This perspective accentuate that the economic calculus is about *TR - and TC per time unit*. Any deviation from budgeted and contracted time frame, changes accordingly the amount of money to be distributed on the remaining time frame in the *TR - and TC per time unit*. In general there are the two contract types to distinguishes between:

First, consider the *fixed-price contract for TR per time unit*. If employees overestimate the time-volume delivered, resulting in the cognitive time, t_c , exceeding contracted or physical time, t_p , the time perception, τ will be larger than unity, thus decreasing *TR per time unit* (A in Figure 1). It corresponds to the situation when the contracted *TR per time unit* must be distributed on more time units than contracted. On the other hand, an underestimation of the time delivered affords a time perception, τ , less than unity, and *TR per time unit* will increase. Thus, from this we are able to draw the conclusion that the relation between time perception, τ , and *TR*, is *inversely proportional* for all fixed-price contracts. From this we conclude that $TR = pt_{\text{tot}}$ must be corrected with the time perception $\frac{1}{\tau}$ for all the time t_{tot} that is delivered on fixed price contract.

In Figure 1 below, we see how the time perception generates dissimilar effects on *TR* and *TC per time unit*. The effect is determined by contractual category, and Figure 1 illustrates the *lever-effect* between time perception and the *curve-linear* economic outcome per time unit with reference to the fixed price contract. The lever-effect is also relevant to the workload, see Equation 6 below.

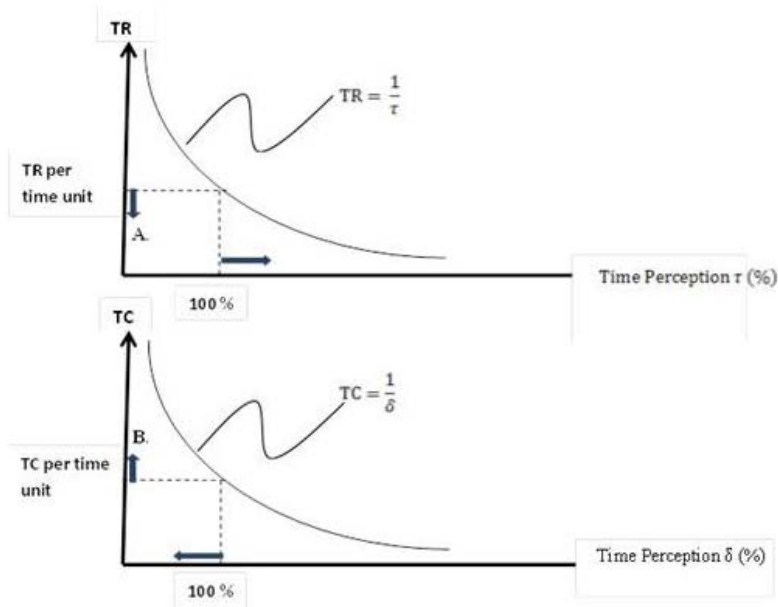


Figure 1. Dissimilar effects on TR and TC per time unit, and its *lever-effect* between time perception and the *curve-linear* economic outcome per time unit.

Sorce: von Schéele, 2001, pp 93.

Consider now for a moment the *fixed price contract for TC per time unit*. As employees overestimate time-volume delivered to customer, their time perception coincides with that their predefined efficiency per time unit decreases. This causes an underestimation of the employee capacity, which in turn, result in increased TC per time unit (B in Figure 1).

Finally, consider the *current account contract*. Here, the customers are charged for the contractor’s cognitive time assessment, t_c , regardless of whether it equals the actual clock, i.e. physical, time delivered, t_p , or not. Underestimation of the passage of time – leading to undercharging – causes a decrease in TR and the time, t_c , reported to the customer will be less than the actual time delivered, t_p . The opposite will occur if time is overestimated. Therefore, we conclude that the relation between time perception, τ , and TR, is *linear* for all contracts on current account. (von Schéele, 2001).

Thus, any Cognitive Time Distortion on the TR per time unit coincides with *dissimilar* Cognitive Time Distortion on the TC per time unit. The time perception on TR- and TC per time unit stirs the economic calculus and creates

fluctuations and unexpected deviations of the outcome from the budgeted point of reference.

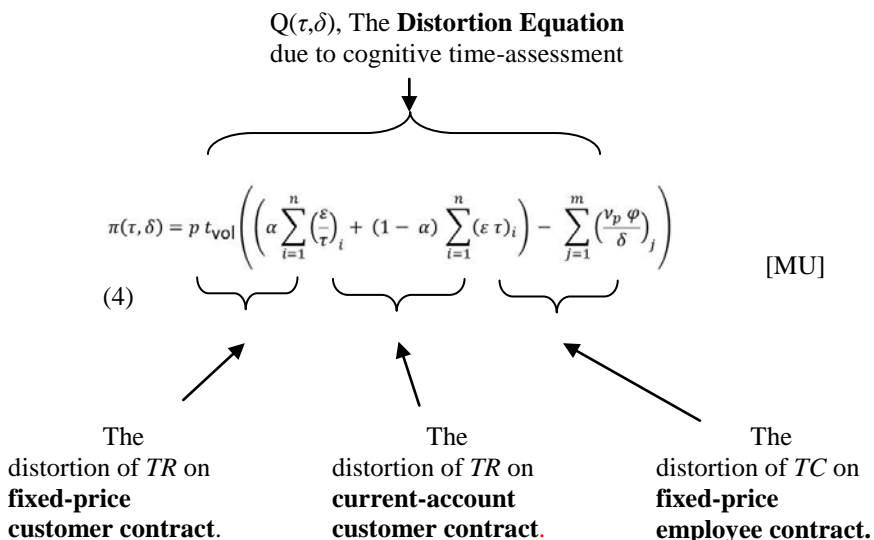
Before moving on to elaborate the consequences of these dissimilar effects of time perception due to contractual form, we wish to make a brief observation. The key role of the mode of a commercial contract in relation to production time and for economic results of an organization, as we understand it, appears so far to have passed unnoticed in economic studies. Subsequently, the relation between time perception and the economic outcome has traditionally been assumed to be *linear*. It is, however, the mathematical properties of the curves in Figure 1 that render linear economic equations their *non-linear properties*.

4. PROFIT EQUATION, WORKLOAD EQUATION INCLUDING THE TIME PERCEPTION

Consider now the Profit equation below. It is based on the formula for profit that accounts for any service organization, and is defined as (Hadar, 1971):

$$\pi = TR - TC \tag{3} \quad \text{[MU]}$$

π denotes here profit per time unit, TR signifies the total revenues per time unit, while TC denotes the total costs per time unit. The parameters are expressed in Monetary Units (MU), preferably defined for the time unit of one year. This equation is further developed with consideration to time perception in organization and contract effect (von Schéele & Haftor, 2014).



The Equation 4 consist of several parameters (see Table 3 below for further clarification) that we now intend to insert in the equation to demonstrate the lever effect. In our examples below we have assumed a time perception τ on TR corresponding to 110 %, while the time perception δ on TC is 90 %.

Table 3

Explanation of parameters in Equation 4 and their values in the calculus examples in paragraph 5 below.

Parameter	Parameter value
Budgeted profit, π	250 Monetary Units
Price, p	100 Monetary Units / hour
Budgeted workload (customer contract time), t_{vol} .	10 hours
Number of customer contracts, ε	1
Number of employee contracts, ϕ	1
Price policy margin, v_p	0,75
Time perception on customer contract, τ	1,1
Time perception on employee contract, δ	0,9
Proportion of fixed price contract variable, α	1
Total Budgeted Revenues, TR	1000 Monetary Units
Total Budgeted Costs, TC	750 Monetary Units

Consider for a moment the expression between the large parentheses on the right hand side of Equation 4. Let us call this parenthesis $Q(\tau, \delta)$; it expresses the Distortion Equation which accounts for various distortions of TR and TC due to time perceptions based on disparate contract modes. Thus, we modify Equation 4 accordingly.

$$\pi(\tau, \delta) = p t_{vol} Q(\tau, \delta) \quad \text{[MU]} \quad (5)$$

Equation 5, the profit equation, informs about *how much profit π is distorted due to poor time perception*, given that price per hour p and budgeted workload (customer contract time), t_{vol} , remains constant (a common management assumption).

In order to calculate how budgeted workload (customer contract time), t_{vol} , fluctuate with the time perception, we rearrange Equation 5 accordingly.

$$t_{vol}(\tau, \delta) = \frac{\pi}{p} \frac{1}{Q(\tau, \delta)} \quad \text{[hours]} \quad (6)$$

Equation 6, the workload equation, informs about *how much the workload is distorted due to poor time perception*, given that the targeted profit π and the price per hour p remains constant (a common management assumption).

5. LEVERAGE ON PROFIT DUE TO TIME PERCEPTION

Let us now proceed with an example of the leverage mechanism on profit in Equation 4. As indicated in Table 3, we assume that the time perception is 110 % on *TR* and 90 % on *TC*. Should we disregard from the contract mode effect and calculate the effect of the time perception on *TR* and *TC* separately, the result is trivial: it gives us the outcome that *TR* and *TC* differs 10 % from target value respectively.

If we on the other hand apply Equation 4, that considers the dissimilar effects of time perception and contract mode simultaneously in the same equation, we get:

$$\pi(\tau, \delta) = 100 * 10 \left(1 * \frac{1}{1,1} - \frac{0,75 * 1}{0,9} \right)$$

[MU]

$$\pi(\tau, \delta) = 1000 (0,076) = 76$$

[MU]

Instead of a profit of 250 U (as budgeted in Table 3 above), the profit *decreased with almost 70 %* : $(250 - 76)/250 = 0,69$. Here we have a leverage effect in which a cognitive time distortion of 10 % is leveraged to a profit decrease of almost 70 %. The mediating mechanism is the profit equation as suggested in Equation 4 and 5. This lever effect refers mainly to the dissimilar time perception on *TR* and *TC* that is further amplified by *subtraction* in Equation 4.

6. LEVERAGE ON WORKLOAD DUE TO TIME PERCEPTION

Now, continue with another example now focusing on the mechanism of the leverage effect on the workload as described in Equation 6. Again we assume a time perception of 110 % on *TR* and 90 % on *TC*. A common misconception is that cognitive time distortion corresponds to “loss of time” by working the corresponding amount of time extra. This misconception does not account for the *division effect*, neither does it take into account that *profit and price per hour shall remain constant*.

We consider these things by taking applying Equation 6 and insert the parameter values from Table 3 with the following result:

$$t_{\text{vol}}(\tau, \delta) = \left(\frac{250}{100} \right) \frac{1}{\left(1 * \frac{1}{1,1} - 0,75 * \frac{1}{0,9} \right)}$$

[hours]

$$t_{\text{vo}}(\tau, \delta) = 31,3 \quad \text{[hours]}$$

The *combined* effects of a time perception of 1,1 (on *TR*) and 0,9 (on *TC*) respectively, informs us that the employees needs to work 31,3 hours to balance the cognitive time distortion – should all other parameters (budgeted profit, price level and salary level) *remain constant*. Here we have a leverage effect when a time distortion of 10 % increases *the workload by some 300%*. The mediating mechanism is the Equation 6 and we attribute this lever effect mainly to the mathematical operation of *division*.

It is obvious that mathematic operators deteriorate the validity of an economic analysis. We have compared the leverage effect of a time perception of 1,02 in a company with turnover corresponding to 405 Million Monetary Units. In Table 4, we see the relative difference of the keyratios, compared to if there is no cognitive time distortion at all (time perception $\tau = 1$).

Table 4.

An example of mathematical leverage effects on key-ratios in an organization with a turnover of 405 Million Monetary Units.

Key – ratio	Budgeted outcome	Relative difference from budgeted outcome with cognitive time distortion of 2 % on fixed price contracts (Leverage effect)
Turnover	405 Million MU	- 1,96 %
Operating expenses	400 Million MU	1,01 %
Profit percentage	0,86 %	- 347,18 %
Turnover rate of Capital	5,06 times/year	- 1,96 %
Return on Total Capital	4,48 %	- 342,33 %

The column “Budgeted Outcome” displays the target level of each key-ratio. The right column “Relative difference from outcome with cognitive time distortion...” displays the leverage effect when there is a time perception on 1,02 on fixed price contracts. This means that, for instance, the Return on Total Capital decreases with 342,33 % when there is a cognitive time distortion of 2 %. The more sophisticated the keyratios are, the larger the leverage effect.

7. DISCUSSION AND CONCLUSIONS

In this paper we have introduced a new kind of economic lever effect, one that is sourced in the *perception of time* as made by employees in economic organizations. More specifically, human agents unconditionally perceive time, both prospectively and retrospectively, in a manner that is typically not in unity with the rhythm of physical time (i.e. clock time), while the latter kind of time mentioned is universally assumed by economic contracts hence governing all kinds of economic affairs. The unconditional gap between perceived time and the physical time is dynamic and gives rise to time leakage, which has profound economic implications, particularly for economic organizations intensive on human labor, such as various kinds of services. The dynamic nature of cognitive time distortion gives rise to the here lever effect due implying that only minor temporal distortions produces economic loss that with multiple size of the distortion.

We wish to suggest that this ‘temporal lever effect’ may have profound effects on all economic affairs that are implicitly or explicitly based upon the conventional notion of time, i.e. physical time. This implies that any theoretical body founded on physical time – whether macro or micro – requires a revision, in terms of its account for the temporal distortion here featured. Secondly, the practices of managers and policy makers are also in need of development to include conceptual apparatus that enables the detection and assessment of present cognitive time distortion and thereafter its management, for instance through employee learning.

From this paper we draw the following conclusion about the lever effect:

- Even a moderate cognitive time distortions cause substantial deviation in budgeted profit as well as it proves to be a mechanism to large delays. The lever effect mechanism can be modelled and predicted by mean of the here presented mathematic model. The lever effect due to the time perception is an ever present distortion of a true economic outcome.

Thus, future research should focus both on the update of current theoretical bodies that are based in the conventional notion of physical time only, and to develop managerial techniques that enable the detection and positive management of various levels of temporal distortions.

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INNOVATORS' VS. NON-INNOVATORS' PERCEPTIONS OF CORRUPTION IN EUROPEAN POST-TRANSITION ECONOMIES

JEL classification: O30, D73

Abstract

Post-transition countries struggle with their attempt to catch-up more advanced market economies with more or less success. Innovation activities have been emphasized as one of the most important factors for achieving sustainable growth. At the same time, innovation indicators in post-transition countries significantly lag behind the desired levels. According to the Innovation Union Scoreboard 2014, post-transition EU countries are mainly modest and moderate innovators. Only Estonia and Slovenia are classified among innovation followers. Various measurements of shadow economy usually reveal that its size is more pronounced in the catching-up countries. Since shadow economy and corruption can be perceived as major obstacle for doing business, we analyse whether innovators perceive this impediment to be systematically more important than non-innovators across different post-transition EU countries. We expect that perception of corruption as an obstacle to business operations among innovators will be lower in post-transition countries that perform better in terms of innovation. The results imply that there is a link between innovation activity of the firms, perceptions of corruption and the evaluation of innovation enabling specificities in the analysed countries. Thus, in order to boost innovation, not only traditional innovation-supporting policy measures should be considered, but also wider spectrum of activities oriented towards business climate improvement.

Key words: innovation, corruption, post-transition countries

1. INTRODUCTION AND LITERATURE REVIEW

Two often emphasized problems in post-transition countries are low level of innovativeness and high level of corruption. The link between the two problems has been documented in the literature, both on the country and firm level. Anokhin and Schulze (2009), for example, argue that countries aiming to improve innovativeness should put additional efforts to control corruption. Corruption is perceived as major obstacle for doing business in general (De Rosa, Gooroochurn and Görg, 2010). Although it is generally recognised as a problem in societies and economies, extant literature provides evidence on possible positive side of corruption. Often explored question in the literature is whether corruption sands or greases the wheels of an economy and some of the literature explicitly emphasises the effects for the innovative firms.

Meon and Sekkat (2005) argue that corruption in general cannot have positive effects on specific economy as their findings indicate it causes negative effects on investment and growth. Some studies argue that overall effect is not general, but depends on the specific country institutional setting. Habiyaemye and Raymond (2013) found that bribery by foreign firms in host countries can have some positive effects on their innovation activities but it is very harmful for innovation and R&D in transition host countries. They point out that not just public servants but also managers of multinationals benefit from these activities without dealing with externalities of corruption in long run. Some studies additionally argue that effects of corruption differ by types of innovation. Corruption is damaging for product and organizational innovation, beneficial for marketing innovation and has no impact on process innovation development (Mahagaonkar, 2008). The negative effects of corruption on product innovations have been also confirmed by Starosta de Waldemar (2011).

As previously indicated, some authors emphasize that negative effects are more pronounced in countries with efficient governments, while in countries whose governments are less efficient corruption in fact can have positive effects (Méon and Weill, 2010). In developed economies increases in level of corruption leads to double or even more direct decrease of entrepreneurship than it is the case in developing economies (Avnimelech, Zelekha and Sharabi, 2014). Furthermore, effects of corruption are not the same across geographical regions. Corruption has negative effect on investment in transition countries but not on investment in Latin America and Sub-Saharan Africa (Asiedu and Freeman, 2009). In Russia, for instance, corruption is one of the factors that reduce firms' capacity to get involved in innovation activities (Chadee and Roxas, 2013). In transition countries higher level of corruption is related to lower economic prosperity (Goel and Budak, 2006). Although transition economies are usually not considered as developing countries according to their economic indicators, studies certainly reveal that the level of institutional development is not satisfactory. Consequently, without additional research we cannot assume the effects of corruption on innovation activity.

The “greasing the wheels” hypothesis implies revealed general benefits of corruption. Lui (1985) explains how both customers and public servants act to make bribery efficient. Positive perceptions of corruptions have been documented in the literature. Budak and Rajh (2011) reveal that in Western Balkan countries professionals with some experience in bribing are more likely to see benefits from corruption. Kramer (2013) finds that corruption is a solution for anomic condition caused by rapid changes in transition economies that in fact positively affects innovation development. This is found true in case of Bulgaria, one of the least innovative EU countries where corruption has positive effects on both radical and incremental innovation (Krastanova, 2014). The positive impact of corruption on doing business is identified also by Vial and Hanoteau (2010) who provide evidence on positive effects on plant growth.

Since corruption effects have been found different in developing and developed economies, important issue of institutional setting has to be emphasized. Certainly, entrepreneurs’ intention is to overcome institutional barriers, and within that setting the bribing emerges as an effective practice. Studies have shown that opportunity motivated entrepreneurs are more sensitive to corruption and more likely to grease the wheels compared to necessity motivated entrepreneurs (Dejardin and Laurent, 2014). Furthermore, corruption reduces negative effects of complex regulations on entrepreneurship (Dreher and Gassebner, 2013). Although there is no evidence on better treatment by public servant, innovative firms are more likely to bribe government officials according to some studies (Ayyagari, Demirguc-Kunt and Maksimovic, 2009).

Discussion on greasing and sanding the wheels still remains open. Relying on extant findings, it can be hypothesized that corruption hinders innovation activities and creates an environment in which firms are unable to develop innovation and introduce it to the market. On the other hand, we cannot exclude possible benefits of corruption for innovation, as identified by existing studies. Thus, it remains to conclude that literature argues the effects of corruption depend on the specific situation.

In this paper we analyse whether innovators perceive this impediment to be systematically more important than non-innovators across different countries. Countries in focus are post-transition EU members. They are Bulgaria, Romania, Latvia, Lithuania, Poland, Croatia, Slovakia, Hungary, Czech Republic, Slovenia and Estonia. Of these countries only Estonia and Slovenia are innovation followers while rest of them are modest (Bulgaria, Romania and Latvia) and moderate innovators¹ (Lithuania, Poland, Croatia, Slovakia, Hungary and Czech Republic). Innovation Union Scoreboard reveals that Estonia and Slovenia have

¹ According to Innovation Union Scoreboard (IUS), innovation followers are countries whose innovation performance is less than 20 percent above or more than 90 percent of the EU average. Modest innovators are the countries with innovation performance less than 50 percent of the EU average. Moderate innovators are those with the innovation performance below the EU average that ranges between 50 percent and 90 percent of the EU average.

the best innovation performance among selected countries. Their average innovation performance is only slightly below the EU average. In particular, Summary Innovation Index 2013 for EU-28 was 0.554. Its value for Estonia was 0.502 and for Slovenia 0.513. Innovation performance of the rest of the selected countries lags behind the EU average. Bulgaria, Latvia and Romania are the countries with lowest innovation performance in EU. Their innovation performance is less than 50 percent of EU average. Summary Innovation Index 2013² for Bulgaria was 0.188, Latvia 0.221 and Romania 0.237. The innovation performance of Lithuania, Poland, Croatia, Slovakia, Hungary and Czech Republic is somewhat better but still well below EU average. Their innovation performance ranges from 50 to 90 percent of EU average. The closest to the EU average of the selected post-transition moderate innovators is the Czech Republic with Summary Innovation Index value 0.422. Summary Innovation Indexes 2013 for the rest of the post-transition moderate innovators are as follows: Lithuania 0.289, Poland 0.279, Croatia 0.306, Slovakia 0.328 and Hungary 0.351³.

At the same time, the Corruption Perceptions Index of the Transparency International indicates that corruption varies across the post-transition EU member states. The country with the lowest level of corruption perception is Estonia. The Corruption Perceptions Index (CPI) in 2013 for Estonia is 68. The CPI 2013 scores for the countries in our sample are: Poland 60, Lithuania and Slovenia 57, Latvia 53, Hungary 54, the Czech Republic and Croatia 48, Slovakia 47, Romania 43 and Bulgaria 41⁴. This initial overview of the rankings of countries according to the different indicators already provides initial indication that innovation performance is related to corruption level of the country. The relationship is, however, not straightforward. Bulgaria and Romania indeed struggle the most with corruption. However, Poland and Lithuania for example, have corruption level close to Slovenia and Estonia that both have better innovation performance.

In order to further elaborate this issue, we explore the empirical relationship between innovation activity and corruption perceptions in the analysed countries. To that end, the next section contains information on the data used in the empirical analysis. Methodology for the empirics is briefly presented in Section 3, where more emphasis is put on the presentation of the results. The last section summarizes conclusions.

² Summary Innovation Index 2013 and Corruption Perceptions Index (CPI) in 2013 for all countries in the sample are given in the table in Appendix.

³ More information on innovation performance is available on http://ec.europa.eu/enterprise/policies/innovation/policy/innovation-scoreboard/index_en.htm

⁴ For more information on CPI visit <http://www.transparency.org/cpi2014/results>

2. DATA AND PRELIMINARY FINDINGS

Data used in this analysis are from the latest Business Environment Survey (BEEPS V) conducted by the European Bank for Reconstruction and Development (EBRD) and the World Bank, which relates to the years 2012-2013. The full database contains responses from 15,600 manufacturing and services firms in 30 EBRD countries gathered employing face-to-face interviews.⁵ BEEPS is widely used dataset for research on corruption (e.g. Ayyagari, Demircuc-Kunt and Maksimovic, 2009; Habiyaemye and Raymond, 2013, Kramer, 2013, De Rosa, Goroochurn and Görg, 2010), since it enables comparative overview across different countries. To the extent that we omit judging on possible cultural differences of responding to the same question in different countries, this approach ensures important insight into the corruption patterns.

The sample used in the analysis in present paper consists of 3,716 firms from the selected countries, among which 2,190 can be considered as innovators. For the purpose of this study innovators are firms that report (1) successful development of new or significantly improved product⁶, production/supply practice, organisational/management practices or structures, marketing methods and logistical or business process, and/or (2) investment in (intramural or extramural) R&D and and/or giving employees time to develop or try out a new approach or new idea about products or services, business process, firm management or marketing during the last 3 years. Since we have already emphasized in the introduction that the sampled countries lag behind in innovation activity, it might be surprising that the sample contains relatively large share of innovative firms. Consequently, we might argue that there are overall sample selection issues that might impede on the research focused on comparative analysis of innovation activity on the national level. However, we claim that such sample enables the analysis of the differences between innovative and non-innovative firms across countries because there are no a priori reasons to assume that there would be a systematic difference in responding to these questions between the two analysed subgroups.

The question „To what degree is corruption an obstacle to the current operations of this establishment?“ was used to assess the perception of corruption of responding firms. 5-points Likert scale was offered to respondents, ranging from “no obstacle” to “very severe obstacle”. The data shows that higher percentages of innovative firms perceive corruption as important obstacle to business (23.15 percent) in comparison to non-innovative firms (12.71 percent) if we consider overall sample. However, as Figure 1 shows, there are important differences in perceptions among countries. In some countries, non-innovative

⁵More on BEEPS V can be found on <http://ebrd-beeps.com/>.

⁶ The response rate to the first question, i.e. whether the enterprise had new or significantly improved product during the last the years is rather high in the sample. Thus, although some specific questions related to the type of innovation have higher non-response rate, since we are dealing with the overall innovation activity, these potential missing observation issues found in similar studies should not be reflected in our results.

firms perceive higher corruption problems (Poland), while in others countries the size of the problem for both population subgroups is relatively small (Estonia).

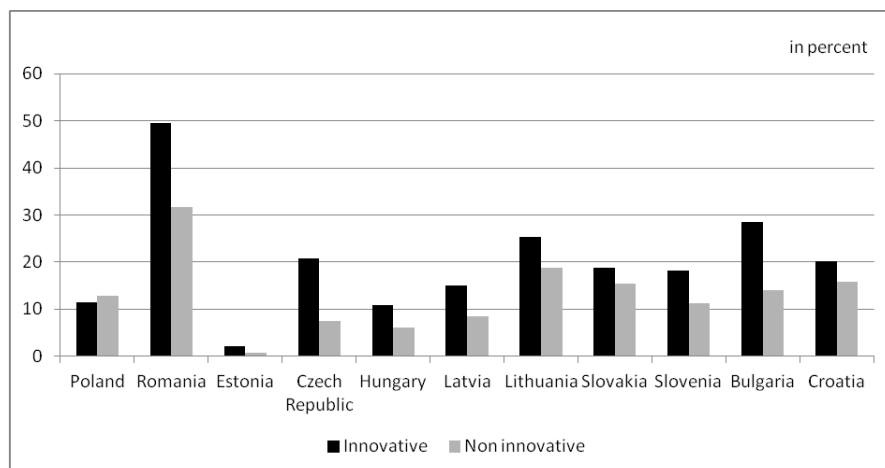


Figure 1 Differences in perceptions of the corruption obstacles

Source: authors' calculations based on BEEPS.

In order to shed some light on such findings, we analyse differences across countries in additional responses. BEEPS enables analysis of a number of interesting questions⁷:

- In any of inspections or meetings with tax officials was a gift or informal payment expected or requested? (Variable name: Tax)
- When establishments like this one do business with the government, what percent of the contract value would be typically paid in informal payments or gifts to secure the contract? (Variable name: Contract)
- In reference to that application for an operating license, was an informal gift or payment expected or requested? (Variable name: Operating)
- It is often said that firms make unofficial payments/gifts, private payments or other benefits to public officials to gain advantages in the drafting of laws, decrees, regulations, and other binding government decisions. To what extent have the following practices had a direct impact on this establishment?
 - Private payments/gifts or other benefits to Parliamentarians to affect their votes (Variable name: Parliament)

⁷ The term given in the brackets is used as a reference to each described question.

- Private payments/gifts or other benefits to Government officials to affect the content of government decrees (Variable name: Government)
- Private payments/gifts or other benefits to local or regional government officials to affect their votes or content of government decrees (Variable name: Local)

We report the percentages of innovative firms in each country that have reported corruption experiences as described by previous questions.

Table1

Innovative firms perceptions of corruption, percentage

Country	Tax	Contract	Operating	Parliament	Government	Local
Poland	0	2.01	0	0.93	2.17	1.86
Romania	4.59	0.78	2.17	3.62	4.11	3.62
Estonia	0	0	0	0.72	0	0.72
Czech Republic	0.53	3.13	0.53	9.57	7.46	6.38
Hungary	0	15.00	0	3.13	2.34	0.78
Latvia	0.75	0.25	0	0.75	0.75	0.75
Lithuania	3.17	0.30	1.59	6.35	7.94	9.52
Slovakia	0.72	0	0.72	5.76	7.19	5.76
Slovenia	0.55	1.27	0	1.10	2.21	1.10
Bulgaria	3.03	0	2.42	4.85	6.67	7.27
Croatia	0	0.72	1.58	3.16	3.16	4.74

Source: authors' calculations based on BEEPS.

The truthfulness in answers to every survey can be questioned. The answers related to corruption activity involvement should be taken with additional care, since such practices are often illegal not only on the demand side of the transaction but also for the supply side (i.e. the respondents in the survey). To the extent that cultural and legal differences influence the responses in analysed countries, the absolute comparison of different levels of percentages across the countries should be avoided. However, the data presented in previous table provides some interesting information on the differences in corruption perceptions across countries. For example, in Romania, the country where innovators perceive corruption to be relatively larger impediment to doing business among the analysed countries, respondents have repeated experiences in bribing tax and in general government officials. Such practice could be related to the "greasing the wheel" hypothesis, when government procedures are not

developed in adequate manner, so that the entrepreneurs seek alternative ways to overcome business barriers.

It is interesting also to note that in some countries enterprises are expected to provide gifts to local levels of government (Croatia, Bulgaria, Lithuania), while in others parliament seems to be the place where innovators seek opportunities to enhance their businesses (Czech Republic, Hungary). Although probably the most unreliable question – the percentage of contract amount paid as a bribe – the average number for Hungary seems really high.

In order to investigate the relationship between corruption and innovation output, we have to bear in mind that innovation propensity on a firm level also depends on a large number of factors. Some of the widely studied issues in innovation literature are how firm size (e.g. Hausman, 2005, Keizer, 2002) and sector in which firm operates (e.g. Lööf 2005, Forsman 2011, Becheikh et al. 2006,) reflect in innovation activities. Thus, in our empirical estimates, we include variables firm size and sector to control for these factors. Three dummy variables have been considered as a sector indicator – manufacturing, retail and services – as available from the BEEPS data. The four dummy variables for the size were related to the micro enterprises, small, medium and large, where the classification has been taken from the BEEPS survey, thus ensuring the comparability across countries. Other control variables we use to explain innovation output in this paper are firm age, ownership (private or state) and operating as a part of larger group. We have also considered turnover of the firm, productivity (measured as turnover per employee) and employment changes during the period captured by the survey as control variables, but none of these were significant (or in some cases adequate choices due to potential endogeneity, multicollinearity or other econometric issues) in our specifications.

Relying on these data, specific empirical strategy as well as results is further discussed in the following section.

3. ESTIMATION METHODOLOGY AND RESULTS

Initial investigation on the country level has shown that there is a negative correlation between the innovation scoreboard index and the share of innovative firms perceiving corruption to be important obstacles for their business (correlation coefficient -50.85). This implies that countries in which corruption is perceived as an important problem by innovative firms also lag behind in overall innovative performance.

The question is whether we can find evidence in the sample to reveal if firms who perceive corruption as an obstacle innovate more or less (the so called grease versus sand hypothesis as indicated in introduction). We first estimate simple matching model in order to estimate the impact of corruption perceptions on innovation activity. Specifically, we use the average treatment effect of the treated (ATT) framework where we assume that corruption perception is the

treatment variable and innovation activity is the outcome variable. Within the propensity score matching procedure, initial set of variables considered usual determinants of innovation activity (size, sector, ownership, age) referred to in other studies⁸. Balanced property has been satisfied and the estimates were restricted to common support. Although it can be assumed that there are important endogeneity constraints, we have used this methodology to gain first insights into the relationship between the two variables of interest.

Table 2

ATT estimates: innovation outcome conditional on perceiving corruption to be an obstacle

Method	Estimated ATT	Standard errors	Treated/controls
Nearest neighbour	0.177***	0.028	699/601
Kernel matching	0.172***	0.019	

Source: authors' estimates based on BEEPS.

The results in Table 2 indicate that the firms, which have stated that they perceive corruption to be important obstacle for their business activity, are still more likely to have innovative activities (innovation output) than their matched counterparts. This would either corroborate the “greasing” hypothesis or indicate the firms’ determination to innovate in spite of perceived obstacles. The latter could be interpreted optimistically, having in mind the Innovation Scoreboard results for the analysed countries. However, inspection of the sample shows that there are a disproportionally high number of innovative firms in the sample. Consequently, the sample structure itself might provide too optimistic evidence for judging the actual situation in the analysed countries.

In order to explicitly deal with sample selection issues, we rephrase the research question. We investigate whether we can find the determinants of the innovation activity of the firms in the analysed countries, conditional on the fact that they consider the corruption to be important obstacle for their business activity. The dependent variable is thus whether the firm has been classified as innovative. This has been modelled with the Heckman probit procedure. Corruption perception has been put into relationship with different performance scores of innovation scoreboard index in order to incorporate the different economic conditions the firms face in the analysed countries. The results of the estimates are presented in the following table⁹.

⁸ The probit estimates from the propensity score matching algorithm available from the authors upon request.

⁹ The table presents results of the robust estimates, which were similar to the estimates without this specific option.

Table 3

Propensity of innovation, controlling for corruption perceptions

Variable	Coefficient	Standard error
Innovation – probit equation		
Constant	0.777**	0.303
Age	-0.002	0.005
Private firm	0.061	0.162
Segment of larger firm	0.078	0.191
Small	0.384*	0.196
Medium	0.476**	0.207
Large	0.847***	0.262
Manufacturing	0.240**	0.096
Corruption – selection equation		
Constant	-2.871***	0.820
Human resources	5.937***	1.728
Research system	13.624***	1.869
Finance and support	-3.206	0.650
Firm investment	-1.540**	0.770
Linkages and entrepreneurship	-7.297***	1.329
Intellectual assets	-3.024***	0.750
Innovators	4.139***	1.107
Economic effects	-1.481***	0.466
Diagnostics		
N=3714	Wald chi2(7)=20.75***	LR (rho=0) chi2=16.30***
Censored=3015	Log likelihood=-2033.607	Wald (rho=0) chi2=16.06***
Uncensored=699	Rho=-.607 (.117)	

Notes: ***denotes significance at the level of 1 percent, ** at the level of 5 percent and * at the level of 1 percent.

Source: authors' estimates based on BEEPS.

Since our results have shown that the rho value is statistically different from zero, the overall likelihood of the estimates is not equal to the sum of the likelihoods of selection equation and probit equations. Consequently, sample selection correcting for the perception on corruption makes sense. Thus, we have found that the probability of innovation activity is increasing with the size of the enterprise and the sector the enterprise operates in, conditioning on the corruption perception differences. It also shows that some of the frequently emphasized determinants of innovation activity of firm – being a segment of a larger enterprise or operating as a private firm (as opposed to state ownership) – were not significant for our countries.

Additionally, it is interesting to note - from the selection equation - the relationship between various dimensions of Innovation Scoreboard index and corruption perceptions of sampled firms in post-transition countries. The results

imply that in the countries with more favourably assessed human resources, research system and innovators in general, corruption is more likely to be perceived as the important obstacle to doing business. On the opposite side, countries in which firm investment, linkages and entrepreneurship, intellectual assets and economic effects were assessed more favourably, firms seem to have put less emphasis on the corruption to being important obstacle for doing business. It could be argued that these correlations are due to the fact that the indicators themselves represent the countries the firms originate from. Even with this indirect connection, it seems that these factors which are used for innovation performance rating are also correlated with corruption perception of the firms.

The results presented in this paper imply that there is a link between innovation activity of the firms, perceptions of corruption and the evaluation of innovation enabling specificities in the analysed countries. Since innovation scoreboard indicators are frequently taken into account by policy makers when considering new innovation policy measures, it is important to notice that they should also consider wider set of business climate indicators, including corruption perceptions. Such combined perspective might results in the better coordination of overall economic policy mix, that might boost additional innovation activity and consequently spur overall catching-up process.

4. CONCLUSIONS

The main focus in this paper was to empirically analyse the relationship between corruption perceptions and innovation activity in the post-transition European economies. The reason for choosing the sampled countries is that they have been frequently assessed in public debates as well as in research studies as lagging behind more innovative economies and having important governance impediments for successful entrepreneurship development. Based on the BEEPS data, we have confirmed that in most of the analysed countries innovative firms perceive corruption to be major impediment for their business activity, even more so than non-innovative firms emphasize the same issue. Since innovation activity is relatively low in these countries, it could be argued that general policy recommendation to enhance the efforts to reduce corruption should be made, since corruption might deter potential innovators from their activities.

Empirical analysis has shown that firms still innovate in the analysed countries, even if they perceive corruption to be important impediment for their business activity. Based on these results we cannot argue that innovation activity would be higher if corruption perceptions were lower in the analysed countries. It might be the case that enterprises have found the way to operate within the society labelled by high corruption perceptions and that sudden changes of the system could also create additional obstacles. Or it might be the case that decreasing corruption would reduce their operating costs and thus enable better

business performance. Such causal relationships are beyond the scope of the present paper.

We have, however, established that the degree of corruption perceptions reported by the respondents in the analysed countries is related to different segments of overall innovation scoreboard index. Consequently, corruption perceptions are correlated also with other factors contributing to overall business climate in a specific country, which makes it more or less favourable for innovation activity.

Our analysis has additionally shown that after corruption perceptions are accounted for, innovation propensity is higher for firms that are larger (in comparison to micro firms) and also the firms in manufacturing (in comparison to services and retail). The first finding might be related to the issue of access to finance, where larger firms have more and better established links with financing institutions. Although manufacturing and services are rather similar when it comes to innovation (Sirilli and Evangelista, 1998), our results reveal that manufacturing firms in selected countries are more likely to innovate. This might indicate presence of structural industrial differences in post-transition EU countries when it comes to innovation and calls for further research focusing on specific sector or industry.

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Appendix

Summary Innovation Index and Corruption Perceptions Index for the countries in the sample in 2013

	Summary Innovation Index	Corruption Perceptions Index
Estonia	0.502	68
Slovenia	0.513	57
the Czech Republic	0.422	48
Hungary	0.351	54
Slovakia	0.328	47
Croatia	0.306	48
Poland	0.279	60
Lithuania	0.289	57
Bulgaria	0.188	41
Latvia	0.221	53
Romania	0.237	43

Sources: *Innovation Union Scoreboard and Transparency International.*

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THE IMPACTS OF OPEN INNOVATION STRATEGIES ON INNOVATIVE PERFORMANCE: THE CASE OF COLOMBIAN FOOD AND BEVERAGE FIRMS

JEL classification: O31, L25

Abstract

The Open Innovation theory has received great attention in the international literature, but their study is non-existent in Colombia's academic spectrum. In this sense, the aim of this paper is to fulfil such academic gap by the identification of the open innovation strategies effects on firm's innovative performance, measured by the share of innovative sales. The partners and objectives of cooperation were the main open innovation strategy used for the estimations. The analysis was made taking into account three different novelty levels of innovations. We conducted the analysis with a sample of 1404 Colombian agrifood industries, finding that in early stages of the innovation process the main strategy of open innovation to impact firm's performance is to cooperate with suppliers. Meanwhile, at a radical level, cooperation with the objective of R&D is the key OI strategy to improve the innovative performance.

Key words: open innovation, cooperation agreements, innovative performance

1. INTRODUCTION

The Food and Beverage Industry (hereafter F&BI) is one of the most representative economics sector of Colombia. According to the Colombian National Institute of Statistics (DANE for its acronym in spanish) in 2012, 18.7% of the manufacturer belonged to this sector. In terms of impact, 23.2% of the industrial labor force was employed by the F&BI, the sector also generated 27.3% of gross production and created 29.3% of the aggregate value.

Worldwide, this sector is characterized by a low Research and Development (R&D) intensity, hence most innovations are based on external acquisition of technology and rarely based on science (Costa, 2013; Garcia Martínez & Briz, 2000; Samadi, 2014). As a result, the F&BI is usually classified as a mature industry with low technology (Costa & Jongen, 2008; Galizzi & Venturini, 1996). In addition, innovations performed by firms within this sector are mostly incremental and in very few cases radical (Costa & Jongen, 2006; Garcia Martinez & Briz, 2000; Noordman & Meijer, 2013). In this regard, Garcia Martinez (2013) shows that innovation in this sector are limited and mostly related to greater variety and new flavors.

Beyond the incremental characteristics of innovation in the F&BI it is interesting to note that, in spite of its low R&D intensity this sector generates a significant number of innovation (Galizzi y Venturini, 1996; Grunert et al., 1997). This behavior has been explained because of a widely adopted strategy to use innovation as a mechanism to confront the sector's high competence (Capitanio et al., 2009; Galizzi y Venturini, 1996), to maintain competitive advantage over increasingly powerful retail chains with own-labeled products (Bayona-Sáez et al., 2013; Hughes, 1996), satisfy the main needs of demand (Costa, 2013; Samadi, 2014), and in more extreme cases, as a mechanism of long term market survival (Tepic et al., 2013).

In spite of the above mentioned characteristics, Open Innovation (OI) has been a widely adopted strategy for firms within the sector (Noordman & Meijer, 2013). To illustrate, Archibugi et al. (1991) found that agrifood firms rely, to a higher extend, on external sources of innovation when compare to other industries. Chesbrough (2003) introduced the term OI as an alternative to the traditional conception of innovation. The author defined OI as a paradigm in which firms incorporate both, internal and external ideas, and internal and external paths to market, as they advanced in their technology.

OI has received in recent years great attention in the international economic literature, however, its study has been inexistent in the colombian academic spectrum. In this sense, it is the aim of this article to fulfil such gap by investigating the effect of OI on the performance of firms within the F&BI. Innovation performance will be measured as the share of innovative sales. Three dependents variables were analyzed, each related with a specific level of novelty (to the firm, to the national market, to the international market). Additionally,

several models were estimated to reflect the propensity of a firm to innovate in each of the mentioned novelty levels. This analysis is important because we conceived innovation as a process in which the first step concerns to the decision of innovate.

The OI strategies were analyzed using two sets of variables related to cooperation in innovation. This group of variables were measured separately in order to differentiate the effect on the firms probability to innovate and on the firms sales performance.

The paper is organized as follows. In the second section we explore the literature examining the relations between OI strategies and innovative performance, describing the hypothesis that will drive our investigation. The third section presents the effect of OI strategies on the innovative performance. The subsequent section reports the results and the last section presents the discussion and conclusions.

2. COOPERATION IN THE FOOD AND BEVERAGE INDUSTRY AND RESEARCH HYPOTHESIS

In this section we aim to describe the main features of cooperation behavior and innovative performance of firms within the F&BI. In order to meet this target and to fully understand our research results, we used the Development and Technological Innovation Survey (EDIT for its acronym in spanish), IV edition, which gathers data from the period 2007-2008i. The survey is carried out by the DANE following the guidelines of the Oslo manual from the Organisation for Economic Co-operation and Development (OECD), and of the Bogotá Manual, designed by the Iberoamerican Research Network on Science and Technology (RICYT for its acronym in spanish).

Before the descriptive statistics, we present two sub-sections in which the two sets of OI strategies are explained with more detail. Each one of them ends with the hypothesis that will drive the development of our research.

2.1. Cooperation partners

The acquisition of external knowledge, cooperation agreements and co-creation with customers and suppliers have been some of the most utilized OI strategies in the F&BI. Empirical researches has demonstrated that the technological development of high-tech industries like biotechnology, nanotechnology, pharmaceutical, electronics and the chemical industry have been fundamental for the technological progress of the companies within the F&BI (Acosta et al., 2013; Bröring, 2013; Galizzi & Venturini, 1996; Garcia Martinez, & Briz, 2000).

Even though it is frequent for scholars to include formal collaboration connections in innovation as a dimension for OI that affects the performance in agrifood firms, the way in which such variables are usually measured differs from our approach. While most authors (Bayona-Sáez, 2013; Laursen & Salter, 2006; Lazzarotti & Manzini, 2009; Pellegrini et al., 2014) utilize a variable for collaboration depth (measured as the sum of cooperation partners), we prefer to include dummies for each cooperation partnerⁱⁱ. Having independent dummies allow us to separate the effect of each type of partner on innovation performance.

In specific F&BI studies, Batterink et al. (2006) found in a study for the Dutch agrifood industry that clients, suppliers, competitors, universities and research centers are only important as sources of information and not as cooperation partners for innovation. In contrast, Bigliardi & Dormio (2009) did find a positive and significant effect of cooperation with certain partners on the firm's innovation outcomesⁱⁱⁱ.

Bascavusoglu-Moreau & Tether (2012) focus their analysis in determine the effects of customer cooperation on innovation performance, measured by both, the introduction of new products, and the sales of innovative products. The author found that cooperation with customers positively affects innovation propensity, but has no effects on the sales of new products.

Based on related literature on both, agrifood and non agrifood related manufactures, we developed the following hypothesis for the colombian F&BI:

H1: Cooperation in innovation with suppliers or customers has a positive effect on the firm's innovative performance and on the propensity to innovate at an incremental level.

H2: Cooperation with universities or research centers has a positive effect on the propensity to innovate at a radical level.

2.2. Cooperation objectives

Besides cooperation partners it is also of our interest to study the objectives of cooperation. Scholars on innovation have considered the number and type of phases within the innovation process for which firms are open to external sources of technology and know-how (Lazzarotti & Manzini, 2009). In general terms, these phases are: idea generation, prototyping, production and commercialization. In our case, we will study the objectives of innovation and not the different phases of innovation process, therefore, a second set of models will include dummy variables for each of the 8 different cooperation objectives presented in the EDIT IV.

These estimations differ considerably from previous investigations on OI because we could not find related works in which the cooperation objectives were included as a dimension for OI and on the analysis of its effect on the firm's innovation performance. In this sense, we developed two additional hypothesis related with cooperation objectives for the colombian agrifood companies.

H3: Firms that cooperate for the R&D objective have a higher innovative performance for the most radical level of novelty

H4: Cooperation with the objective of acquisition of machinery and equipment has a positive effect on the firm’s propensity to obtain purely incremental innovations

2.3. Cooperation for innovation in Colombia

Now that the OI dimensions and hypothesis consider in this study were mentioned, we will proceed to describe the variables of our interest. As a starting point, we will analyzed the information concerning cooperation for innovation in general. According to the data in the EDIT IV survey, 19.9% of firms in the F&BI cooperated in innovation (table 1). This result illustrate the lack of formal cooperation links in innovation of companies within the food sector in Colombiaiv.

Table 1

Cooperation in the Colombian F&BI

Type of partner	Cooperate	Cooperation objective							
		R&D	Acquisition of machinery and equipment	Technologies of information and telecommunications	Innovations marketing	Technology transfer	Technical assistance & consulting	Engineering & industrial design	Education and specialized training
Suppliers	13.0%	6.1%	7.0%	3.3%	5.7%	3.3%	7.5%	2.8%	5.4%
Customers	8.3%	4.8%	3.9%	2.4%	5.1%	2.3%	4.9%	2.1%	3.5%
Competitors	2.1%	1.4%	1.0%	0.9%	1.4%	0.9%	1.3%	0.6%	1.0%
Consultants	9.2%	4.9%	4.8%	3.3%	3.6%	2.6%	7.3%	2.8%	5.0%
Universities	5.8%	4.2%	3.0%	1.7%	2.9%	2.2%	4.1%	1.9%	3.4%
Research Centers	3.1%	2.8%	1.7%	1.1%	1.6%	1.5%	2.5%	1.1%	2.3%
Other partners	2.9%	2.2%	1.4%	1.5%	1.6%	1.1%	2.4%	1.3%	2.0%
Any partner	19.9%	8.3%	8.0%	4.5%	7.4%	3.9%	11.7%	3.8%	7.4%

Source: authors with EDIT IV dataset.

When analyzing the type of partner, 13% of Colombian agrifood firms have cooperated in innovation with suppliers, making them the main partner of cooperation. In contrast, only 2.1% of cooperation agreements are made with competitors. Even though the models for partners and objectives of cooperation are estimated separately, a cross analysis will turn helpful for the future description of the results. In this sense, it is of interest to note that most firms that cooperate with suppliers do it for the objectives of technical assistance and consulting, and acquisition of machinery and equipment.

Consultants as key partners of cooperation in innovation (9.2% of firms cooperated with them), are important for the objectives related with technical assistance and consulting, education and specialized training, and R&D. For those cooperation objectives, firms within the F&BI are also likely to engage formal connections with universities.

Meanwhile, customers are a key partner for firms pursuing marketing of innovations and R&D projects. Competitors, research centers, and other partners are not import allies for cooperation in innovation.

In the case of objectives, most firms cooperated in innovation for technical assistance and consulting, while engineering and industrial design was the least pursued objective of cooperation (3.8%). In order of importance, R&D is the second most pursued objective of cooperation, having 8.3% of agrifood firms cooperating for it. It can be pointed out that the main partners of cooperation, regarding this R&D objective, are suppliers and customers.

If cooperation in innovation is taken as the variable to measure OI, contrary to investigations in foreign countries, our data shows that in the Colombian case OI is not a widely adopted strategy. Nevertheless, it remains important to investigate which partners and objectives for cooperation are the ones which have a greater impact on the firm's innovative performance in the F&BI.

3. THE EFFECT OF OI STRATEGIES ON THE INNOVATIVE PERFORMANCE OF FIRMS

The aim of this section is to analyze the effect of OI strategies on the innovation performance of firms within the F&BI in Colombia. With the information available in the EDIT IV survey and following Laursen & Salter (2006) and Bayona-Sáez et al., (2013), we use three proxies that represent different types of innovative performance by firms. The first variable measures the portion of the company's revenue relating to products that are new to the firm. The second, measures the share of sales associated to the introduction of new products for the national market. Finally, the third variable denotes the fraction of the firm's turnover relating to product new to the international market.

In order to characterize the different levels of innovation novelty in the dependent variables, we consider the proportion of sales from new products to the

international market as radical innovation, while the remaining two variables correspond to incremental innovations.

As we briefly described in the introduction, it is also of our interest to estimate the propensity of firms within the F&BI to innovate in each of the mentioned novelty levels. For this reason, we built the next three dummy variables: (1) new product to the firm (NPF); (2) new product to the national market (NPNM); and (3) new product to the international market (NPIM). This additional dependent variables take the value of 1 when the firm has innovated in each particular level of novelty and 0 in the opposite case.

Thereby, there have been estimated a total of 12 models, 6 for each set of OI variables (partners and objectives). Within each group of 6 models, 2 correspond to the novelty of the innovation, being one for the probability to innovate at this level (Logit), and the other one for the innovative performance (Tobit).

3.1. Explanatory variables

The first set of OI strategies is related with the cooperation partners. The measures that include this group of variables correspond to the first 6 models estimated (model 1 – model 6). We included 7 explanatory variables for this estimations, representing each one of them a specific cooperation partner. All these variables are dummies that take the value of 1 if the firm has cooperated in innovation with the partner and 0 in the contrary case. The cooperation partners included in the analysis, with their respective variable name used in our research are: (1) suppliers “COOP_SUP”, (2) customers “COOP_CUS”, (3) competitors “COOP_COM”, (4) consultants “COOP_CON”, (5) universities “COOP_UNI”, (6) research centers “COOP_RC”, (7) other partners “COOP_OTH.

When we moved our attention to models 7 to 12, the explanatory variables of interested are the dummies of cooperation objectives. The 8 objectives of cooperation in innovation included in the EDIT IV, with their respective variable name are: (1) R&D “COOP_R&D”, (2) acquisition of machinery and equipment “COOP_AME”, (3) information and communications technology “COOP_ICT”, (4) innovations marketing “COOP_IMA”, (5) technology transfer “COOP_TTR”, (6) technical assistance & consulting “COOP_TAS”, (7) engineering & industrial design “COOP_EID”, and (8) education and specialized training “COOP_EST”. The independent variables for the second group of models are also dichotomous taking the value of 1 if the company cooperated in innovation for a specific objective and 0 otherwise.

3.2. Control variables

We have included in the estimations a measure of R&D intensity (RD_INT), calculated as the ratio of firm R&D expenditure and the number of

employees. Most articles who address similar investigations, use as measures of R&D intensity the firm R&D expenditure divided by firm sales (Laursen & Salter, 2006; Lichtenthaler, 2009; Bayona-Sáez, 2013; Hung & Chou, 2013). However, we could not use that measure because the EDIT IV survey do not include information about firm sales. Nevertheless, we believe that our alternative measure is quite a good proxy of firm R&D intensity.

Firm size may affect the behavior of firms regarding OI strategies. Usually, larger firms have more available resources to innovate. In this sense, we include firm size on the estimations. The variable (expressed in logarithms) is measured by the number of employees (LOGEMP).

Finally, we consider important to control for firm's perception of obstacles to innovation. Similar to Batterink et al., (2006) and Bigliardi & Dormio (2009) we group the related obstacles into three categories: (1) obstacles associated with information and internal capabilities (e.g. lack of own resources, lack of qualified staff); (2) obstacles associated with risk (e.g. uncertainty about demand for innovative products, low profitability of innovative products); and (3) obstacles associated with the environment (e.g. ease of imitation by others, difficulties in accessing to external financing). All these variables were built as the average perception of the obstacles conforming each category. In this sense, the variable takes values between 0 and 1.

3.3. Empirical approach

It is clear that the main objective of this paper is to identify the impacts of the OI strategies on the innovative performance of firms within the Colombian F&BI. However, we strongly believe that innovation is a process in which firms, normally, cannot obtain successful results by quickly passing through the stages shaping the innovation process. This implies that before firms can even improve their innovative performance it is imperative that they have introduced new products to any of the spaces representing the novelty levels of innovation. In this sense, as a secondary aim of the research we are also interested in identifying the effects of OI strategies on firm's propensity to innovate for the international market, to the national market, and to the firm.

In consequence, we have two sets of independent variables for each level of novelty, one related with the innovative performance, and the other to the probability to innovate. We used two different methods for the multivariate analyses. First, a Tobit analysis was conducted for the three dependent variables representing the share of innovative sales in the different novelty levels established before. Whereas Laursen & Salter (2006) and Bayona-Sáez et al., (2013) also rely on Tobit analyses for contrasting their hypothesis, other scholars (Batterink et al., 2006; Bigliardi & Dormio, 2009; Lichtenthaler, 2009; Hung & Chou, 2013) rely on linear regression analysis for the same purposes. Nonetheless, we prefer to estimate the models using Tobit analyses because the dependent variables are the

share of innovative sales, and by definition, these variables are doubly censored in ranges between 0 and 100.

For the dummy dependents variables that show if the firm within the F&BI obtains product innovations in the three levels of novelty specified, binary logistic regression were conducted.

4. RESULTS

More than 25% of companies within the F&BI innovated in products for the firm. Meanwhile, the proportion of firms that innovated in products for the national and for the international markets were 11.8% and 2.9% respectively. These results show that most companies in the sector obtained product innovations at a purely incremental novelty level. Regarding to the innovative performance variables, the average share of sales related to new-to-the-firm products is 9.1%. The same indicator but for national and international market is 3.6% and 0.9% respectively.

The results of the Logit and Tobit analysis that include cooperation partners as the OI strategies are found in table 2. We found evidence on favor of H1 stating that in colombian F&BI, cooperate with suppliers or customers affects positively firms innovative performance and firm's propensity to innovate, both at an incremental level. However, such hypothesis could not be completely accepted because: (1) the variable cooperation with suppliers (COOP_SUP) is not significant for model 3, therefore, to cooperate with the named partner do not affect firm's propensity to innovate for the national market; (2) to cooperate with costumers is not important to the innovative performance on the purely incremental novelty level (model 2).

There is no support for H2 asserting that cooperation with universities or research centers affects positively company's propensity to innovate at a radical level. For model 5, these cooperation variables were not significant. In fact, cooperation with universities was not significant for neither of the 6 model where it was include. Meanwhile, cooperation with research centers reduce firm's probability to obtain products new to the company (model 1). This result could be an outcome of a bad choice of cooperation partner. As we have mentioned before, innovation for the firm is purely incremental, such that the actions needed to meet this target should be based on technological surveillance rather than on science. On essence, innovation for the firm is quick and inexpensive, characteristics that normally research centers can't offer.

Perhaps the most remarkable result from the first 6 models is that consultants are identified as key partners for both, the innovative process and for the success of innovations on each one of the three levels of novelty. The closer the innovation is to the company, the higher will be the impact of cooperate with consultants. Thereby, as the radicalism of the innovation is augmented, the will

to cooperate with these partners marginally decreases. However, when companies from the F&BI have successfully innovated, consultant's cooperation increases significantly the probability of attaining a higher participation from the innovation sales over the total sales as innovations are more radical.

Other results show that competitors are an important partner for companies to innovate for the firm (model 1). Bigliardi & Dormio (2009) obtained a different result in their investigation, finding that competitors are conceived as important partners for radical rather than for incremental innovations.

For the control variables, we observe that size (LOGEMP) and R&D intensity (RD_INT) are significant on all 6 models. The bigger the firm the higher the innovative performance. In this sense, It is worth noting that on the first levels of innovation (where innovation activities are characterized to be incremental), R&D intensity and size play a more important role than in more advance levels of innovation (characterized for being radical). This means that after a certain level of innovation, size and R&D intensity are not sufficient on their own and additional inputs are required. Furthermore, the results indicate that size and R&D intensity have a marginally decreasing impact on both the F&B firm's propensity to innovate and their innovative performance.

Table 2

Results of the multivariate analyses (cooperation partners)

Multivariate analyses	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent variable:	New product for the firm	ROS from new products for the firm	New product for the national market	ROS from new products for the national market	New product for the international market	ROS from new products for the international market
Regression type:	Logit	Tobit	Logit	Tobit	Logit	Tobit
COOP_SUP	0.1163** [0.0475]	2.7781*** [1.0167]	0.0391 [0.0249]	1.9534* [1.0631]	-0.0044 [0.0050]	-1.3000 [1.4484]
COOP_CUS	0.1271** [0.0595]	1.7329 [1.1427]	0.0767** [0.0352]	2.9299** [1.1962]	0.0059 [0.0090]	1.8419 [1.5029]
COOP_COM	0.2224* [0.1211]	3.0772 [1.9618]	0.0163 [0.0411]	1.3699 [1.9096]	0.0219 [0.0214]	2.4732 [1.9763]
COOP_CON	0.2305*** [0.0625]	3.6030*** [1.1598]	0.0721** [0.0329]	3.1644*** [1.1719]	0.0534** [0.0258]	5.1299*** [1.5679]
COOP_UNI	-0.0419 [0.0512]	1.2368 [1.3803]	0.0003 [0.0255]	1.2403 [1.3770]	0.0043 [0.0097]	1.9147 [1.6946]
COOP_RC	-0.1068**	-2.0654	-0.0056	1.0233	-0.0017	-0.3476

	[0.0457]	[1.7003]	[0.0284]	[1.6635]	[0.0065]	[1.7251]
COOP_OTH	-0.0801	-2.8504*	0.0034	-0.9985	0.0052	0.8965
	[0.0556]	[1.6588]	[0.0324]	[1.6244]	[0.0096]	[1.7238]
LOGEMP	0.0945***	2.0419***	0.0386***	1.8837***	0.0043***	0.6282*
	[0.0089]	[0.2472]	[0.0046]	[0.2710]	[0.0016]	[0.3542]
RD_INT	0.0001***	0.0014***	0.0000***	0.0014***	0.0000***	0.0011**
	[0.0000]	[0.0005]	[0.0000]	[0.0005]	[0.0000]	[0.0005]
OBS1	0.0066	1.7358	-0.0530*	-1.7570	-0.0171*	-3.7949*
	[0.0523]	[1.3159]	[0.0281]	[1.5299]	[0.0095]	[2.1762]
OBS2	0.0993**	2.0404*	0.0482**	1.3300	0.0102	2.2997
	[0.0415]	[1.0544]	[0.0220]	[1.2232]	[0.0074]	[1.6670]
OBS3	0.0447	0.9835	0.0535*	4.2033**	0.0074	1.4938
	[0.0555]	[1.3931]	[0.0298]	[1.6445]	[0.0097]	[2.2111]
ll	-630.3526	-1759.68	-386.2136	-838.8576	-128.7273	-210.2526
r2_p	0.0945***	2.0419***	0.0386***	1.8837***	0.0043***	0.6282*

Note: *p-value <0.1; ** p-value<0.05; *** p-value<0.01; standard errors in brackets

In table 3, the estimates of the Logit and Tobit models related with the second set of OI strategies (cooperation objectives) are presented. As in table 3, there are two models for each novelty level of innovation. With H3 we argued that firms that cooperate for the R&D objective have a higher innovative performance at a radical novelty level. We found strong support for this hypothesis since the variable COOP_R&D is significant and has the expect sign for model 12. Moreover, cooperation for the R&D objective also positively affects the share of sales related to new product to the national market.

With respect to our hypothesis stating that cooperation with the objective of acquisition of machinery and equipment has a positive effect on firm's propensity to obtain purely incremental innovations (H4), we do find evidence on favor. The variable COOP_AME is significant and has the expected sign in model 7. Furthermore, this variable also affects, in a positive way, firm's innovative performance at the first level of novelty (model 8).

Table 3

Results of the multivariate analyses (cooperation objectives)

Multivariate analyses	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Dependent variable:	New product for the firm	ROS from new products for the firm	New product for the national market	ROS from new products for the national market	New product for the international market	ROS from new products for the international market
Regression type:	Logit	Tobit	Logit	Tobit	Logit	Tobit
COOP_R&D	0.0419 [0.0556]	-0.3020 [1.2243]	0.0443 [0.0300]	2.4258* [1.2394]	0.0347 [0.0223]	4.1153** [1.6002]
COOP_AME	0.2671*** [0.0686]	3.9963*** [1.2292]	0.0061 [0.0234]	0.7325 [1.2478]	-0.0027 [0.0059]	-0.1023 [1.4562]
COOP_ICT	-0.0491 [0.0525]	-0.9714 [1.4156]	0.0038 [0.0268]	-0.3012 [1.4257]	0.0103 [0.0133]	1.6700 [1.7416]
COOP_IMA	-0.0355 [0.0449]	-0.8071 [1.2057]	0.0800** [0.0364]	1.3554 [1.2370]	-0.0078* [0.0044]	-2.4069 [1.5949]
COOP_TTR	-0.0316 [0.0608]	2.6408 [1.6174]	-0.0107 [0.0237]	2.0876 [1.5425]	-0.0039 [0.0059]	0.5200 [1.6872]
COOP_TAS	0.1405*** [0.0541]	1.2136 [1.0816]	0.0331 [0.0261]	2.0285* [1.1773]	0.018 [0.0143]	3.9523*** [1.4490]
COOP_EID	-0.0075 [0.0678]	0.5295 [1.6139]	-0.0067 [0.0254]	-0.5322 [1.5225]	0.0052 [0.0111]	0.4769 [1.7941]
Coop_EST	0.1105 [0.0696]	2.8476** [1.3524]	0.0793* [0.0409]	3.2750** [1.4019]	0.0007 [0.0078]	-0.6973 [1.5880]
LOGEMP	0.0936*** [0.0088]	2.0560*** [0.2442]	0.0385*** [0.0045]	1.9181*** [0.2665]	0.0051*** [0.0016]	0.5894* [0.3434]
RD_INT	0.0001** [0.0000]	0.0013** [0.0005]	0.0000*** [0.0000]	0.0012** [0.0005]	0.0000*** [0.0000]	0.0009* [0.0005]
OBS1	0.0100 [0.0521]	1.7898 [1.3120]	-0.0422 [0.0281]	-1.3195 [1.5449]	-0.0145 [0.0103]	-3.1343 [2.1491]
OBS2	0.0987** [0.0416]	1.9359* [1.0550]	0.0374* [0.0222]	0.6875 [1.2401]	0.0077 [0.0079]	2.1091 [1.6447]
OBS3	0.0587 [0.0549]	1.5861 [1.3866]	0.0594** [0.0293]	4.6617*** [1.6541]	0.0078 [0.0106]	1.3805 [2.2036]
ll	-633.0636	-1763.4245	-379.6286	-833.6615	-133.6580	-211.6220
r2_p	0.2026	0.0657	0.253	0.1225	0.2646	0.1618

Note: *p-value <0.1; ** p-value<0.05; *** p-value<0.01; standard errors in brackets

Technical assistance and consulting is a cooperation objective that has a positive and significant influence on company's probability to obtain new-to-the-firm products (model 7). Moreover, such cooperation objective positively affects innovative performance related to innovation for both, national and international markets. It is interesting to note that the marginal effect of this variable on the innovative performance grows as more radical innovation is.

The cooperation for education and specialized training impacts in a positive manner the innovative performance of firms within the Colombian F&BI at the incremental levels of novelty (models 8 and 10). This objective also increases company's propensity to obtain new products for the national market (model 9).

With regard to the variables representing the remaining objectives of cooperation (ICT, technology transfer, and engineering & industrial design), they were not significant in the six models presented. Perhaps, in the Colombian case the firms within the F&BI don't support their innovative activity in these strategies making the mentioned cooperation objectives unimportant for the firms innovative performance.

The control variables maintain the behavior, in terms of significance and marginally decreasing impact, presented on the previous models in which the independent variables of interest were the cooperation partners. This result demonstrates robustness in the selection of the control variables.

5. DISCUSSION AND CONCLUSIONS

The aim of this paper was to analyze the relationship and the effects of cooperation in innovation over the firm's capacity to innovate. Accordingly, we estimate two sets of regressions, analyzing on one hand the firm's propensity to innovate and on the other hand, on the firm's ROS. The cooperation variables were measured as the type of partner and the objective of the cooperation.

Separately, objectives and partners of cooperation in innovation offer some insights about OI strategies in the F&BI, but it is possible to observe a complete OI strategy if we analyze the partner and objective together. Such analysis shows that the strategies are focused on the acquisition of machinery and equipment, mainly with suppliers, to obtain incremental innovations. Moreover, cooperation for the objectives of R&D and technical assistance and consulting are important OI strategies for the innovative performance at a radical level. Conjointly analysis reveals that for these objectives, firms within the F&BI cooperate, principally, with consultants and suppliers. As with F&BI firms around the world, co-creation and market-pull innovations are realities of agrifood firms in Colombia. The above is proved by the importance of customers as cooperation in innovation partners at the incremental levels of novelty.

The non-importance of institutional cooperation as an OI strategy affecting company's innovative performance might be explained in the low specificity or expertise of those institutions on the specific issue of food and beverage. Perhaps universities and research centers are not identified as key partners for the innovation process because they doesn't offer solutions that entrepreneurs need to resolve in this specific discipline. It is important to remember that the dependent variables are directly related with technological innovation, issue in which it is more complicated to cooperate with such institutions.

The present investigation found that in the colombian F&BI the OI strategy represented by both, partners and objectives of cooperation has a nuanced impact on innovative performance and on firm's propensity to innovate at the established level of novelty. Dependent on the novelty level, there are partners and objectives that have bigger impacts over the variables of interested. In general terms, when the innovation is purely incremental (innovation for the firm), the main strategy of F&BI firms are to cooperate with suppliers for the acquisition of machinery and equipment. In the case of innovations for the national market, customers and consultants are the partners that highly influence firm's willingness to obtain new-to-the-national market products and their innovative performance. Finally, in the field of radical innovations, the distinct objective of cooperation pursued by companies is R&D, for which the main cooperation partner are consultants.

These results encourage the reconstruction of the current innovation policy. The public sector is one of the key actors to encourage the development of innovation activities. In this regard, it should be understood cooperation in innovation as one of the main strategies in minimizing the risk associated with these activities. Thus, public policy can be directed toward identifying the optimal strategy for cooperation with the level of innovation of the company and also guide the establishment of cooperation agreements based on complementarity between innovators. The implication derived from de empirical analysis shows that at the first levels of innovation the cooperation with suppliers and customers are the winning strategy, but if the objective of the innovation policy is to reinforce the radical innovation the cooperation agreements must be oriented to the R&D strategies.

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ⁱ EDIT has so far 6 editions, being the corresponding to the period 2011-2012 the most recent and 1996' the oldest.

ⁱⁱ The same approach was used by Belderbos et al. (2004) and Aschhoff & Schimidt (2008) for manufacturing firms.

ⁱⁱⁱ The authors found that cooperation with universities and research centers has a positive effect on the impact of product innovations in total sales. In the same way, cooperate with competitors increases the probability of the firm to obtain radical innovations in process.

^{iv} Bayona- Sáez et al., (2013) found that that 40.2% of the agrifood companies in Spain cooperate in innovation.

^v EDIT IV survey include the degree of importance (high, medium, null) for each obstacle. However, we recode the variable to take into account only the influence or not of each hamper.

^{vi} It is interesting to note that when the analysis involve sub-samples in which we only take into account the firms that innovate in each novelty level, the share of innovative sales is bigger. For example, if we analyze companies that obtained new products to the international market, the average share of sales of those products is 30.3%.

^{vii} Institutional cooperation refers to the cooperation agreements made with universities and research centers (Belderbos, 2004)

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INNOVATION IN LATIN AMERICA: THE CASE OF MEXICO

JEL classification: O3, H5

Abstract

Governments and business leaders are increasingly aware of the role that innovation plays in economic growth, development and competitiveness. There are imperative challenges for Latin American countries, among them, poverty, social inclusion, sustainable development, climate change, natural disasters, productivity, improve the quality of education and health. Innovations are essential to drive economic growth and prosperity in the region. According to the Global Innovation Index (2014), Mexico is ranked 66th. Most of the research on innovation performance is mostly focused on technological innovation. Therefore, the main variables used, such as patents and number of scientific publications, do not always reflect the other types of innovations (i.e. business model, organizational, etc.) that are developing in emerging markets. The aim of this paper is to analyze the Mexican innovation system using a broad concept with a focus on other types of innovation including cultural aspects to identify the main characteristics that distinguish and determine how innovation in Mexico is formed.

Key words: innovation, Mexico, innovation policy

1. INTRODUCTION

Latin American governments are facing important challenges such as inequality, poverty, climate change, natural disasters and competition, among others. Governments need to determine what will be the basis for their competitiveness. Natural resources have been a source of wealth for countries in the region. They can be an asset but also a weakness, mainly in times when demand for commodities are slow and prices are low. And overdependence on natural resources can hinder innovation. Mexico is an upper middle-income country with a population of over 120 million and a GDP (US\$ billions) of \$1,258. The country has one of the largest economies in the world ranked 15th and is an emerging power. In the last decades, Mexico's economy has shifted from commodity and agricultural to service and manufacturing. Mexico is one of the most open economies and is currently undergoing major reforms in the telecommunication, energy, fiscal, education and other sectors to drive growth. According to the 2013 Global Entrepreneurship Monitor (GEM) and the Global Competitiveness Index 2014-2015, Mexico is in a transition phase between Efficiency-Driven and Innovation Driven Economy. In the 2014 Global Innovation Index (GII) Mexico ranks in 66th.

Governments in the region are implementing strategies to enhance their innovation performance. Mexico has been slow in embracing innovation as a tool to improve productivity and competitiveness. In 2012, the Mexican government launched an ambitious 25-year Special Program for Science, Technology and Innovation (STI) to achieve economic and social sustainable growth in the country with scientific, technological and innovation development as the main pillars.

In this paper we argue that most research on innovation performance of a country is generally focused on technological innovation and the variables used are mainly suited for developed countries that have largely invested in human resources, infrastructure and other resources to enhance their innovation systems. Therefore, the main variables used such as patents and numbers of scientific publications do not always reflect the other types of innovations (i.e. business model, organizational) that are developing in emerging markets. To identify the main characteristics that distinguishes and determines the innovation that is produced in some developing countries we use a different approach. The types of innovation that are more prevalent and their socio-cultural traits are used to illustrate the innovation capabilities of emerging countries that transcend the traditional conceptions.

For the purpose of this paper we define innovation as the implementation of a new or significantly improved product or process, new marketing method, or a new organizational method in business practices, workplace organization or external relations (OECD & Eurostat, 2005). According to Lundvall (1992:2) National Innovation Systems "is constituted by

the elements and relationships which interact in the production, diffusion and use of new, and economically useful, knowledge”.

In the last decade, many efforts have been made by the main actors of the innovation system to enhance the innovation performance of a country with high potential but low results according to standard indicators. As Lundvall (2007) noted, in developing countries, research, innovation and competence standard indicators may not capture the reality of the innovation systems. The major challenge consists on developing alternative indicators that capture these elements.

The structure of this paper is as follows. First the role of the public sector in the innovation system of Mexico is presented. Second, the main private actors are identified. Third, Mexican innovations and some of their cultural traits are presented. In the final remarks some recommendations are introduced.

2. THE ROLE OF THE PUBLIC SECTOR IN THE INNOVATION SYSTEM OF MEXICO

Based on the 2002 Science and Technology Law, the main actors in charge of the orientation of the innovation system in Mexico are:

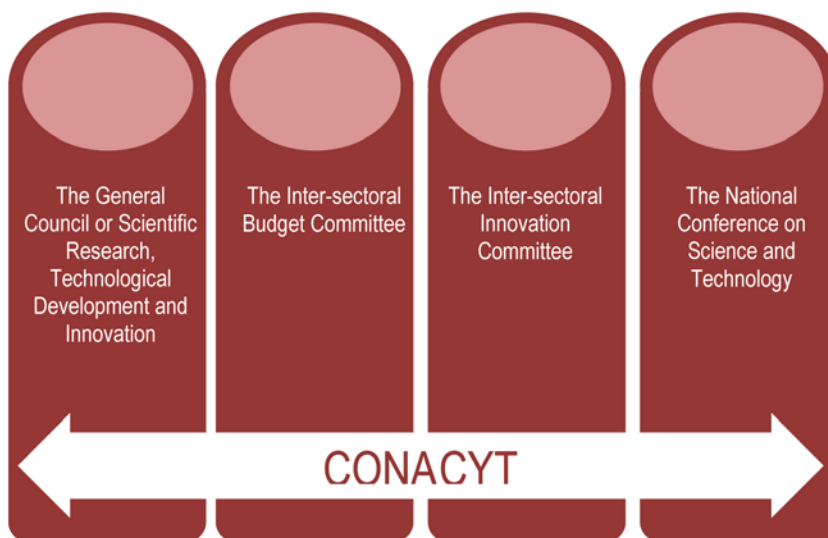


Figure 1 Main public actors of the Innovation System of Mexico

Source: Author's based on the Science and Technology Law
<http://www.conacyt.gob.mx/siicyt/images/pdfs/ley.pdf>

The National Council for Science and Technology (CONACYT by its Spanish acronym) was established in 1970 and it is responsible for articulating the Mexican government's public policies concerning scientific research, technological development and innovation. CONACYT was restructured in 2002, before it was part of the Ministry of Education and it is now an autonomous body within the Executive branch.

The General Council is a high-level scientific advisory body that was created in 2002 to help set the national science and innovation policy. The President of Mexico presides this Council, the National Council for Science and Technology (CONACYT for its Spanish acronym) is the Executive Secretary and among the members are the Foreign Affairs, Energy, Economy, Rural Development, Education and Health Ministers, the Director of CONACYT, the coordinator of the Science and Technology Advisory Forum, the President of the Mexican Academy of Sciences, a representative of the National Conference on Science and Technology, three representatives of the productive sector that have coverage and national representation, a representative of the Public Research System and the Executive General Secretary of the National Association of Universities and Higher Education Institutions.

The Inter-sectoral Budget Committee is coordinated by the Ministry of Finance and Public Credit (SHCP for its Spanish acronym) and the Director of CONACYT, and reviews the correspondence of the programs with the budget.

The Inter-sectoral Innovation Committee is presided by the Minister of Economy, the Director of CONACYT as vice-president and the Minister of Education, and is responsible of approving the innovation program of the General Council.

The National Conference on Science and Technology is entrusted with the coordination of federal and state STI policies and is formed by CONACYT and the representatives of the State Governments in science, technology and innovation.

The public higher education and research institutions that are part of the innovation system are very important and are therefore presented in another section. In Mexico, the institutional structure can generate important limitations and incentives that impact the NIS. Except for CONACYT, most of these main public actors have been established in the last two decades. Until then, Mexico did not have an explicit innovation policy.

2.1. Innovation policies

The Mexican Science Technology and Innovation policy has been mainly structured around different programs proposed and coordinated by CONACYT with the participation of federal and state governments as well as the industry and academy. In June 5, 2002 the Science and Technology Law was promulgated. As mentioned before, this law created most of the main actors in the

Innovation System of Mexico: the General Council for Scientific Research, Technological Development and Innovation and the Science and Technology Advisory Forum, as well as restructured CONACYT. The Special Program for Science Technology and Innovation (PECiTI) was also established based on the guidelines of the National Development Plan. PECiTI is the framework document and planning instrument for the Mexican Science Technology and Innovation policy.

In 2009, an amendment to the Science and Technology Law introduced changes in the governance with the creation of the Inter-sectoral Innovation Committee. The aim is to develop a more comprehensive approach to innovation by fostering greater coordination at the ministry level. A year later, the Committee Specialized in Science, Technology and Innovation was created to improve information in the field. The main coordinator of the Innovation System is CONACYT.

The Special Program for Science, Technology and Innovation 2012-2037 (PECiTI) is the first with a horizon of 25 years in contrast with the previous program (2008-2012) that had a 6-year horizon. The PECiTI is updated every three years. Mexico has been slow in the race to become a knowledge-based economy. The four phases of PECiTI are associated to the six-year Presidential term of office.

The first phase 2013-2018 aims to strengthen and coordinate de STI capacities to transform the institutional setting and consolidate a significant segment of innovative businesses. The second phase from 2019 to 2024 is described as the launch where STI capacities oriented towards strategic sectors and social needs are strengthened, and accelerate innovation. The third phase 2025-2030 is the competitive consolidation; reinforce financing from the business sector. The fourth phase from 2031-2037 is maturity; the business sector accounts for most of the financing for scientific research and experimental development (SR&ED). Each phase comprises different outcomes that are expected in the process to achieve an innovation system that is articulated and will contribute towards Mexico's economic development and social welfare.



Figure 2. The four phases of the PECiTI with expected outcomes

Source: Author's based on the 2014-2018 PECiTI available at: <http://www.conacyt.gob.mx/siicyt/index.php/estadisticas/publicaciones/programa-especial-de-ciencia-tecnologia-e-innovacion-peciti/peciti-2014-2018/2420--378/file>

In the 2014-2018 PECiCIT significant efforts are aimed at boosting investment in science, technology and innovation. The linkage between the public and private sector is key. Some of the weaknesses mentioned above have been considered and strategies are being implemented to improve the innovation system of Mexico. The development of a comprehensive innovation policy that is coherent with the instruments available could significantly contribute towards achieving the goals set out.

2.1.1. Goals and Implementation Strategy of the Innovation Policy

There are six main strategies identified in the Special Program for Science, Technology and Innovation 2014-2018 (PECiCIT) to achieve scientific, technological and innovation development as pillars of economic and social sustainable growth in Mexico:

i. Contribute to the annual growth of national investment in scientific research and technological development to reach 1% of GDP.

The aim is to achieve a sufficiently high rate of investment in the next years with the participation of all sectors, especially, to encourage the private sector to contribute more.

ii. Contribute to high-level human capital formation and enrichment.

Continue efforts to enhance human resources for research, especially in priority sectors and in strategic opportunities. The insertion of this high-level human capital not only in the higher education institutions but also in the industry is very important.

iii. Drive the development of vocations and abilities of local Science, Technology and Innovation to strengthen regional sustainable and inclusive development.

Design and implement public policy that responds to the regional needs that will strengthen each of the entities according to their capacity, vocation and needs.

iv. Contribute towards the generation, transference and exploitation of knowledge by linking HEI and businesses research centers.

To articulate the actors which are not only diverse but there are also weak links among them (government, higher education institutions and industry) is a priority.

v. Strengthen the scientific and technological infrastructure in the country.

With a vision that, among others, reflects the needs of modern science (i.e. spaces, collaborations, connectivity).

vi. Strengthen the STI biotechnology capacities to solve the needs of the country according to the legal framework on biosecurity.

The current infrastructure and specialized human resources need incentives and support to generate biotechnological developments that include the experimental design and a biosecurity culture. The goals and their execution plan in the 2014-2018 Special Program for Science Technology and Innovation are presented in Table 1.

Table 1

Goals and execution plans for the 2013-2018 PECiCIT

Goal	Execution Plans
<p>Contribute to the annual growth of national investment in scientific research and technological development to reach 1% of GDP.</p>	<ul style="list-style-type: none"> -Increase the annual federal spending for SR&ED. -Promote business financing for SR&ED. -Increase STI spending in the federal entities considering their asymmetries. -Generate new incentives for Ministries to increase their spending on STI. -Increase spending in HEI and public research centers STI activities. -Encourage the use of international financing sources. -Coordinate the application of a harmonized methodology for the elaboration of the STI state accounts. -Finance scientific research, technological development and innovation projects with public, private and social resources. -Harmonize transversely the demands of sectorial funds towards the solution of national problems. -Promote the creation of clusters and public-private consortiums to develop STI projects at the sectorial and regional level.
<p>Contribute to high-level human capital formation and enrichment.</p>	<ul style="list-style-type: none"> -Increase the number of Scientifics and technologists in the National System of Researchers in priorities of the STI sector. -Encourage and strengthen inter and multidisciplinary research groups in priorities of the sector and emerging areas. -Promote the participation of Mexican Scientifics and technologists in the global knowledge community. -Create research networks in STI priorities that include Scientifics and technologists that are abroad. -Facilitate the mobility of postgraduate students, researchers and professionals between academia, the productive sector and government. -Strengthen the postgraduate quality programs accredited by CONACYT.

	<ul style="list-style-type: none"> -Encourage international projection of the postgraduate quality programs accredited in the PNPC. -Promote postgraduate studies in engineering and technology with the participation of the business sector. -Form high-level human resources abroad emphasizing sector priorities and emerging areas. -Stimulate international mobility of researchers and postgraduate students. -Incentivize the participation of researchers and professionals in STI forums and international organizations committees.
<p>Drive the development of vocations and abilities of local Science, Technology and Innovation to strengthen regional sustainable and inclusive development</p>	<ul style="list-style-type: none"> -Strengthen the STI capacities of the states according to their vocation and strategic sectors. -Orient the demand of FOMIX and FORDECYT towards the solution of local and regional problems. -Encourage the incorporation of high level Scientifics and technologists in state institutions. -Support innovative SME' s focused on opportunity niches in the regions. -Promote public-private alliances for the development of technological capacities.
<p>Contribute towards the generation, transference and exploitation of knowledge by linking HEI and businesses research centers</p>	<ul style="list-style-type: none"> -Design mechanisms that facilitate the links of HEI and public research centers with businesses. -Promote the creation and strengthening of Knowledge Transfer Units (UVTC by its Spanish acronym). -Encourage incentives to create technology-based innovative enterprises. -Strengthen UVTC activities related to the intellectual property protection instruments. -Promote an intellectual property culture from the higher education. -Contribute to the financing of the intellectual protection of knowledge generated.
<p>Strengthen the scientific and technological infrastructure in the country</p>	<ul style="list-style-type: none"> -Increase and maintain the infrastructure of the research institutions and centers of the country. -Build a national information system of the scientific and technologic infrastructure. -Support the equipment of research laboratories of the country in the priorities of the STI sector. -Promote the certification of laboratories with international standards. -Contribute to the implementation of public policies that facilitate the importation of equipment and materials used in research. -Create programs and virtual public spaces for the social

**Strengthen
the STI
biotechnology
capacities to
solve the
needs of the
country
according to
the legal
framework
on
biosecurity**

appropriation of science, technology and innovation.
 -Establish mechanisms for society to have open access to knowledge generated with public funds.
 -Encourage massive programs of public access to promote scientific and technology culture of society.
 -Stimulate HEI and public research centers to generate standardized open access repositories.
 -Create infrastructure for the connectivity of scientific and technological information repositories.

-Encourage research to scientifically establish the adoption of biosecurity measures stipulated in the law.
 -Support research on possible effects of GMOs in: environment, biological diversity, human health, and animal, vegetal and aquatic health.
 -Generate knowledge on the socio-economic effects of the use of GMOs.
 -Promote innovative biotechnological applications to care for emergent human, animal and vegetal sanitary problems.
 Promote biotechnological developments that contribute to the production of quality food with added value.
 -Promote biotechnological developments that benefit the rural environment and the productive sector in a sustainable manner.
 -Develop biotechnological applications for the conservation of the environment and use of biodiversity.
 -Promote biotechnological application for industrial processes that drive competitiveness and generate high value added products.
 -Facilitate the international exchange of information and scientific experiences and techniques in biosecurity and biotechnology.
 -Coordinate the cooperation and exchange of information with international institutions.
 -Promote initiatives to strengthen regional capacities in biosecurity.
 -Encourage programs and actions to strengthen the biosecurity and biotechnology culture.
 -Promote continuous communication of the information on biosecurity and biotechnology towards society.

Source: Author's based on the 2014-2018 PECiTI available at: <http://www.conacyt.gob.mx/siicyt/index.php/estadisticas/publicaciones/programa-especial-de-ciencia-tecnologia-e-innovacion-peciti/peciti-2014-2018/2420--378/file>

After the North American Free Trade Agreement was signed in 1994, the Mexican government's policies developed what we would like to call the *maquila* model where efforts were made to brand the country as a cheap, good quality and efficient manufacturing destination (see www.maquilaportal.com).

Almost ten years later, China displaced Mexico as the second most important trading partner of the US and became a more attractive manufacturing destination for multinational corporations. And internally, this model did not deliver the expected level of economic growth and social welfare. Mexico's GDP growth rate averaged 2.57% for twenty years since 1994. According to CONEVAL, the average poverty rate is still more than 45%. This is inadequate for a country with high potential for growth. As seen in Table 1, the Mexican government is now focusing its efforts beyond manufacturing and moving towards fostering innovations for social inclusion.

In 2014 Mexico's Gross Domestic Expenditure in Research and Development (GERD) as a percentage of GDP remained low at 0.43%. The Government accounts for more than half of the contributions and the goal is to achieve 1% by 2018 with more investment from the private sector.

Table 2

Federal Expenditure in Science, Technology and Innovation in 2012.

Activity	Millions of Mexican pesos	Millions of US dollars ¹	Percentage by activity
Scientific Research and Experimental Development	39,474	2,610	63%
Postgraduate Education	13,894	919	22.2%
Scientific Services	7,075	468	11.3%
Innovation	2,228	147	3.5%
TOTAL	62,671	4,144	100%

Source: Author's based on CONACYT PECiTI 2014-2018.

In Table 2 the expenditure by activity clearly discloses the priority of the Federal Government with regards to STI. Most of the investment is in Scientific Research and Experimental Development (63%) activities compared to 3.5% on innovation. CONACYT has created different instruments to finance STI activities. For example, the subprogram AVANCE funds the creation and acquisition of methodologies to help consolidate commercialization and technology transfer developed in Technology Transfer Offices in Mexico to users, and to identify and integrate strategic investors and sponsors in research activities. In 2007 the Technological Innovation Fund (FIT by its Spanish acronym) was created and is operated by CONACYT and the Ministry of

¹ Conversion based on an Exchange rate of \$15.12 Mexican pesos per \$1 USD. Bank of Mexico <http://www.banxico.org.mx/> Last accessed on 14 May 2015.

Economy as a support mechanism for Micro, Small and Medium Businesses (SME), start-ups and entrepreneurs to develop innovative products and services projects in areas of high value-added.

In 2013, CONACYT and the Ministry of Economy launched a call for proposals to establish Mexican Energy Innovation Centers (CEMIE): solar, bio-energy, geo-thermal and wind energy. The aim of the Centers is to create innovation alliances in the energy sector: human resources, technology transfer, establish links between academia and industry, among others.

2.2. Mexican Public Research Institutions and Higher Education

Education is not only one of the inputs but also a key driver of innovation. According to the Global Innovation Index (2014) Mexico ranks in 89th place in education. The Higher Education System in Mexico is complex and diverse. There are three types of institutions: universities, technological institutes and the Normal schools. According to Forbes (2015) only two Mexican institutions are among the 10 best universities in Latin America, ITESM (private) is ranked 7th and UNAM (public) 8th.

The Public Higher Education Institutions are separated in subsystems. According to the Mexican Ministry of Education (2015) there are 66 Public Universities in Mexico: 9 Federal Public Universities, which are actively involved in academic activities such as teaching and research; 34 State Public Universities that have been created by decree of local congress as decentralized public organisms; 23 Public State Universities with solidary support receive contributions from the budget and state governments mainly provide financing. The Federal government convenes with each state government the solidary contribution. Also, there are 12 Intercultural Universities were created with the aim to promote training for students who are engaged in economic, social and cultural development of Mexican indigenous populations. The institutions with most students, funding and intellectual influence are the universities.

Mexico is producing a large number of graduates in engineering, science, manufacturing and construction. According to the 2014 GII, Mexico ranks 20th in the number of graduates in science, engineering, manufacturing and construction (% of total tertiary graduates) with 26.8. This is the result of the Federal government's acknowledgement of the importance of technological training with the establishment of a System of Technological Institutes that is formed by 262 institutes and Specialized Centers (132 Federal Technological Institutes and 130 Decentralized Technological Institutes) with presence in the 32 federal entities and almost 500,000 students. There are 104 Technological Universities that offer students who have completed their middle education an intensive training that will allow them to incorporate in a short period (2 years) to the productive sector or continue their studies to obtain a bachelor's degree in

other higher education institutions. There are 50 technical colleges: created in 2001 to offer engineering, bachelors and postgraduate studies at the specialization level. Programs are designed on a competences based model and oriented to applied technological research with close links to the productive, public and social sector.

There are 26 CONACYT Public Research Centers that contribute to the formation of highly specialized human capital, design public policies and linkage with the productive sector, among others. The UNAM research system comprises 71 research centers: 49 for scientific research and 22 for research in social sciences. The National Polytechnic Institution (IPN) has 19 research institutes and CINESTAV has 9 research centers.

On the other hand, Mexico still has significant weaknesses in its education system that needs to be addressed. Although the ranking for the number of science and engineering graduates is high, the number of researchers, headcounts per million population, is low with 386.43 and is ranked 74th. The number of scientific and technical journal articles (per billion PPP\$ GDP) is also very low at 5.86 and is ranked 100th. Academic research in public universities is generally emphasized more than commercial applications. On the positive side there are also strengths such as the number of citable documents H index (number of published articles that have received citations) where it ranks in 33rd with 232.

As for the collaboration between university and industry in R&D, CONACYT provides funding to foster knowledge transfer and university-industry collaboration such as the Innovation Incentives Program (PEI for its Spanish acronym), which supports innovation activities and provides 50% of total project costs for micro and SMEs that collaborate with HEI. According to the OECD (2014) this program has been effective in encouraging business innovation in SMEs. In 2014, the estimated budget for was program is 500 million USD.

3. MAIN PRIVATE ACTORS IN THE INNOVATION SYSTEM OF MEXICO

Historically in Mexico, as in most Latin American countries, there are strong ties between education and research institutions but limited ties to the industry. While CONACYT has increased the number of researchers in higher education and research organizations it has been weak at connecting research to the needs of the domestic productive sector.

CONACYT has established a National Registry of Scientific and Technological Institutions and Businesses (RENIECYT) to identify the institutions, centers, and businesses, among others, that participate in scientific and technological activities. In 2014, there are 6,889 registered individuals and corporations.

In Figure 3, from the 72.9% of Businesses 38.7% are Micro, 32.4% are Small, 16% are Medium, 12.7% are Large and 0.03% are not classified. In 2009, an innovation stimulus package was introduced to detonate private investment in R&D and innovation via subsidies that partially cover the costs of technological innovation projects focused on SME's and projects that link businesses with academia. In 2012 a seed fund for investment in high-tech startups was established by NAFIN.

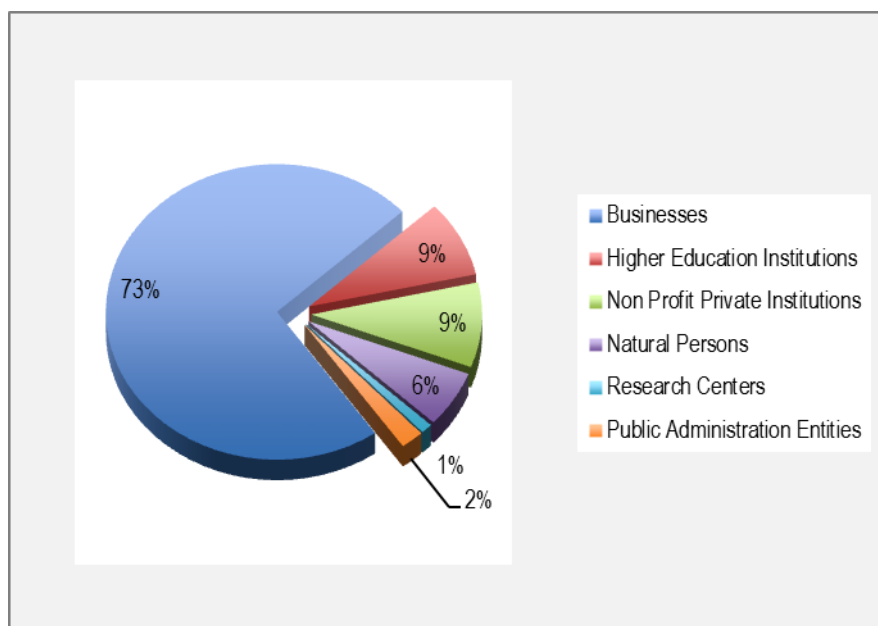


Figure 3. Individuals and corporations in scientific and technological activities members of RENIECYT.

Source: CONACYT, 2015. <http://www.conacyt.mx/index.php/estadisticas> Last accessed March 03, 2015.

According to data from the 2012 Survey on Research and Technological Development (CONACYT-INEGI) in 2011 the private sector investment in research and technological development as percentage of GDP was 0.2% and the percentage of businesses that carried out these activities was 5%. In 2010-2011 the percentage of businesses that carried out innovation projects was 11.7%, 8.2% of businesses introduced a new product to the market or implemented a new process and 10.3% developed at least one product or process innovation project (INEGI-CONACYT, 2012). This data illustrates the low investment by the private sector in innovation; there is room for improvement. By 2037, the goal of the Mexican government, as mentioned above, is to reverse this situation and for the business sector to account for most of the financing for innovation activities.

To foster linkages between the private and public sector in Mexico the Science and Technology Advisory Forum (FCCyT) was established in 2002 as an autonomous and impartial body in charge of analyzing the development of science, technology and innovation in Mexico. There are 19 members in the Board of Directors of FCCyT who represent of the business, research and technology sector. From 2002 to 2013 they organized 109 events, 60% aimed at the academic sector, 30% to the business and government sector and 20% to the legislative, media and civil society organizations.

Among the events organized by the FCCyT in 2012-2013 is the Citizen's Agenda for Science, Technology and Innovation, a survey conducted in Mexico in which the population could choose one out of 10 challenges that must be met using STI to achieve a better quality of life by 2030. More than 150,000 persons participated and the challenges with most votes were education, water and environment: 'modernize the education system with a humanistic, scientific and technological focus' with 17.09% followed by 'ensuring potable water supply for the entire population' with 15.42% and to 'recover and preserve the environment to improve our quality of life' with 13.54%

4. MEXICAN CULTURE IN INNOVATION

Socio-economic, cultural and political factors have an influence on the ability of Mexico to capitalize on its natural advantages. There are different types of innovation: product, marketing, business model and social, among others. In 2010-2011, the number of businesses in Mexico that carried out at least one type of innovation in product, process, organizational or marketing was 4,179. More than half of them were small businesses (20-50 employees). In 2011, the number of businesses that carried out organizational innovations was 1,231 and the number of marketing innovation was 609 (INEGI-CONACYT, 2012).

In InnovaLatino (2011) some examples of innovative organizations in Mexico are presented. Cemex-Patrimonio Hoy is displayed as an innovative Corporate Responsibility program that has benefited more than 300,000 families by providing assistance and resources to build and improve houses with a low-cost micro-credit system. Pineda Covalín as a successful marketing/branding innovative company that promotes Mexican culture via de production and distribution of design pieces. Softek, a firm specialized in providing information technology services is portrayed as a business process innovation. Oxxo (convenience stores chain), and Cinopolis (film distributor and theater chain) are presented as examples of business model innovation.

The 6-D model developed by the Hofstede center is used to present some cultural practices that are present in Mexico. According to the 6-D Model (see Figure 3) Mexico is a hierarchical and collectivistic society that avoids uncertainty with a culture that is normative and a tendency towards indulgence. This clearly illustrates that there are cultural traits are not conducive to a

innovation friendly ecosystem and have an influence on the types of innovations that are produced in Mexico.

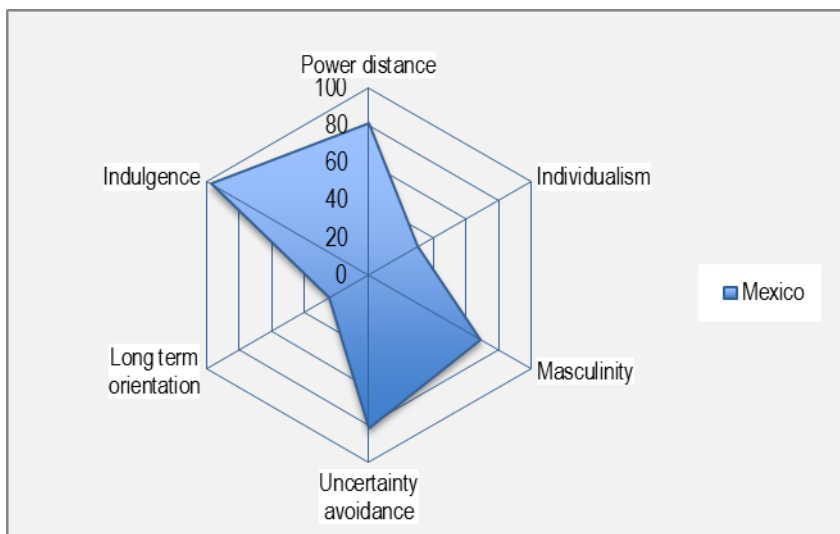


Figure 3. Mexican culture through the lens of the 6-D Model

Source: Author's based on data from the Hofstede center available at <http://geert-hofstede.com/mexico.html> Last accessed on 18 March 2015.

Perceptions and attitudes are important elements in the entrepreneurship activity of a country. In the 2014 Global Entrepreneurship Monitor, only 48.9% of Mexicans 18-64 perceives good opportunities to start a business in the area where they live, which represents a significant decline from the previous year 53.6%. This could be explained by the social and political climate in Mexico.

5. FINAL REMARKS

There are important deficits in the Innovation System of Mexico illustrated by the data presented in this paper. Regarding the public sector, since 2012, there have been policy and governance changes to improve the innovation performance. In the sections above, we have identified a shift in government focus to move from the *maquila* model towards policies focused on inclusive innovation. We believe this is a step on right direction but it is still early to evaluate its effectiveness.

CONACYT is the main body in charge of coordinating the national innovation system in Mexico. But we pointed out to the challenges that need to be addressed to enhance Mexico's innovation performance. Perhaps a ministry of Science and Technology could strengthen the coordination of the innovation

efforts in Mexico and reduce the current myriad of organizations, which make the process rather bureaucratic.

The government should also invest in improving the quality of the education system at all levels. There are incentives to offer high quality graduate programs with the National Program of Quality Graduate Programs (PNPC for its Spanish acronym) based on international standards, a similar program should also be designed to improve the quality at other educational levels. Transference of scientific and technological knowledge from higher education to the productive sector is limited. More internal and external incentives are needed to improve collaboration and identify opportunities to develop new businesses.

With regards to the private sector, although there are innovations we highlighted in the previous section, the data indicates the extremely low expenditure on R&D. Thus, the private sector is not a relevant actor and its interaction with the universities is weak. More incentives should be introduced to reverse this situation and increase the role of the private sector in the innovation system of Mexico as well as the linkages with the research centers and educational institutions. There are innovations emerging from a country that is experiencing important social and political problems. The resilience of Mexican entrepreneurs is evident. In adverse conditions and against all odds they are still innovating.

In this paper we presented the main public and private actors of the innovation system of Mexico. This overview provides a landscape from which policy makers and academics can build on to present proposals for ways to improve innovation performance in Mexico and other Latin American countries.

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INNOVATION AND ECONOMIC GROWTH IN LATIN AMERICAN EMERGING COUNTRIES: THE CASE OF MEXICO, BRAZIL AND CHILE

JEL classification: O43, O54

Abstract

Over recent years several theoretical and empirical research (from developed countries) have studied the innovation as a complex process involving participation, interaction and interrelationship of actors (organizations, individuals, businesses) and institutions (government, education, research centres) as elements of a collective system that contribute and influence the innovation process. In addition, such research shows how that innovation has impacted positively on economic growth of nations. In order to understand the functioning of the National Systems of Innovation in emerging countries (Mexico, Brazil and Chile), we perform a critical analysis of the approach, examining their application limitations and recognizing the characteristics and interests of Latin American countries. Furthermore, we analyse the impact of innovation on economic growth in these countries. The aim of this paper is to analyse whether the differences in economic growth among Mexico, Chile and Brazil, are explained by gaps in levels of innovation.

Key words: innovation, economic growth, Latin-American

1. INTRODUCTION

The links between economic growth and innovation have been studied for a long time. Innovation represents a stimulus for business, because it assures monopoly income once their products enter the market, thus it seems natural that companies are involved in permanent innovation processes. However, certain conditions are necessary for countries to generate innovation. Some of the conditions are: the respect of intellectual property rights, the existence of entrepreneurs, Research and Development public policies, well-established national innovation systems as well as other variables.

Latin America has economic characteristics that distinguish from other regions of the world, its high level of unequal and that their markets are dominated by monopolies and oligopolies. In such context, it is interesting to analyse what happens to the relationship of economic growth and innovation in Latin America, and specifically compare three countries with different characteristics in the region: Mexico, Brazil and Chile.

The aim of this paper is to analyse whether the differences in economic growth among Mexico, Chile and Brazil, are explained by gaps in levels of innovation. Economic growth is not only explained by innovation, there are other factors that determine it, but we want to address whether differences in economic growth correspond to the innovation gap among the selected countries.

2. INNOVATION AND NATIONAL INNOVATION SYSTEMS

In recent decades, innovations have been considered an engine of economic growth, this approach stems from the contributions of Joseph Schumpeter, who in 1942 opens a line of research, to provide input for the construction of a theory of economic development based on processes of innovation and technological developments (Montoya, 2004); basically identifies the presence of innovations in economic cycles, which are the cause of development, and therefore considers innovation as a pillar of capitalism.

The above idea created a new conceptualization of economic theories, besides representing a major break in the existing theories, since the current neoclassical theory could not explain the presence of technical innovations in economics cycles and growth dynamics economic (Dossi, Friedman and Nelson, (1988)).

This context displayed the need for a new approach to economic theory, able to incorporate and explain the technological and institutional change in the mainstream economic analysis (Dossi, Friedman and Nelson, (1988)). The theory of evolutionary technological change emerged. This new paradigm, sees innovation as a complex, dynamic and evolving process that cause changes in the economy (Hanusch and Pyka, (2005), Hanusch and Pyka (2007); Dutrenit,

(1994)), also reflects the importance of an institutional framework to support the process of innovation, since it involves the participation and interaction between enterprises, financial sector and institutions.

Evolutionists believe that the generation of knowledge, come mainly from the tacit and explicit knowledge, the first is rooted in intuition, is personal and difficult to communicate; the second comes from education and can be transmitted through the formal language. Added to this, Dossi, Freeman and Nelson (1988) believe that innovation also comes from paths developed by the company, which will define a specific set of skills and experiences that determine the behaviour and activities of research and development to follow (Dutrenit, (2009); Acosta and Coronado, (2006)).

But what is innovation?. Schumpeter (1984: 120) introduces creative destruction, which is a break with the past; replacing the old for the new; differently use the existing resources and means of production to make new combinations conceived for the introduction of a new good, a new method of production, opening a new market, the conquest of a new source of supply or the creation of a new organization. It defines what we know today as innovation.

According to the Oslo Manual (2014: 45) innovation is "the introduction of a new or significantly improved product (good or service), or process, new marketing method, or a new organizational method in business practices, workplace organization or external relations". For purposes of this investigation, innovation is understood as the introduction and adoption of a new or improved product, service, processes, business model or organizational structure.

In the beginning, innovation was understood as a linear process consisting of: the first stage (invention), specialized researchers engaged in studying the existing theoretical knowledge that will serve them as a platform for the creation of new knowledge; subsequently, at the stage of innovation, the technical application of this knowledge, that is, is implemented to a good or service to enter the market and subsequently spread it or sell it to the interested. However, this way of studying innovation began to be criticized from in the 70's, because the innovation process is more complex; technological innovations not arising from research or basic stage; may arise at various stages and even consumers (Mulder, 2007). This highlights the need to study innovation processes under a systemic view that gives importance to companies, laboratories, research centres, public sector, institutional and organizational context for creating new combinations.

According to Freeman (1993), the vision of the National Innovation Systems (NIS) has its origin in 1841 when Friedrich List wrote that the German's leadership over Britain was due to a range of policies that protect certain sectors and drove the application of new technologies to promote industrialization and economic development. Today, this vision has been studied by Lundvall (1992), who defines NIS as elements and relationships between agents and institutions

that interact in the production, dissemination and use of new and useful knowledge, as part of a collective system, located in a given region.

According to the OECD, cited in Rincon (2004) considers the following definitions:

1. Freeman defines NIS as: a network of public and private institutions whose activities and interactions initiate, import, modify and diffuse new technologies

2. Nelson defines NIS as: a number of institutions whose interactions determine the innovative performance of companies from one country or region.

Therefore, NIS must be understood as an interaction and interrelation between actors and institutions involved in the innovation process - development, introduction, diffusion and use of innovations- as part of a collective system belonging to a specific territory. Under this contextualization, innovation requires a change in the companies, organizations, universities, research centres and political and economic institutions that foster an enabling environment for generating and sharing new knowledge to create innovations and new technologies.

According to NESsT (2012) actors and institutions that make up the NIS are:

1. Direct actors: the companies, inventors, university research centres and other organizations that create and demand technologies.

2. Service providers: institutions that support the direct stakeholders, such as financial resources, access to technology to disseminate knowledge among others.

3. Promoters and policymakers: institutions that create, modify and interfere entire the regulatory framework of an innovation system.

3. INNOVATION AND ECONOMIC GROWTH

The economic growth, in the long term, is explained by several factors: investment, human capital, the provision of public goods (by the government), respect the rule of law, productivity, exports, strong and inclusive institutions, innovation etc. (Mankiw, Romer & Weil (1990), Barro (1989), Feder (1983), Mahoney (2001), North (1989), Acemoglu, Johnson and Robinson (2005)).

Innovation is one of the factors which contributes to economic growth (Wong., Ho & Autio (2005), Freeman (2002)), because there are countries such as South Korea and Israel with high innovation indicators at the same time have the highest rates of economic growth in the world. Thus, the link between innovation and economic growth is strong (Aghion & Griffith (2008)), and has been studied for several world's regions. But how this link is explained?, and what are the factors that encourage innovation?.

From theoretical point of view, we can use the concept of creative destruction of Schumpeter to define innovation, so that it occurs when an invention is inserted to the market and destroys an industry previously dominant (Aghion & Howitt (1990)). The link between economic growth and innovation is led by technological progress which in turn drives productivity.

It is important to note the difference between invention and innovation, because the first is the creation of a new product or idea without involving it enters to the market, while the second implies that the invention is introduced to the market. In that sense, innovations require certain conditions.

A very important element to innovation is the existence of entrepreneurs, that is, people with the ability to insert inventions to market. On the other hand, there must be strong innovation systems and inclusive institutions to provide all conditions for creative destruction (Acemoglu & Robinson (2012)).

Innovation systems are not sufficient to generate innovation, there must be interaction between its elements (Lundvall (2009)). Thus, the government, universities and businesses should have the links and conditions for creative destruction. Innovation generates higher incomes to companies, due to the monopoly revenues generated by a certain time by patents. When intellectual property rights are respected, companies enjoy extraordinary income for the duration of the patents.

Competition is another factor that determines the level of innovation of a country. Some authors point out that competitive markets create incentives to innovate (Aghion, Bloom, Blundell, Griffith & Howitt (2002)), because competition induces firms to innovate in order to remain on the market, however it is proposed that the relationship between innovation and competition is shaped like an inverted U, that is, when competition increases innovation grows up to a certain point, but from that point any competition increase reduces innovation. On the other hand, other authors consider that competition reduces the incentives to innovate (Grossman & Helpman (1991), Romer (1990)), due to anti-trust laws reduce incomes of creative destruction.

Our study links economic growth and innovation in three Latin American countries. The selected countries (Chile, Brazil, Mexico), like the rest of Latin America, are characterized by monopolistic or oligopolistic markets, therefore it is important to analyse the impact of the lack of competition on innovation and economic growth.

In developed countries the elements of the NIS are well linked, but in Latin America that does not happen, because institutions of the region are not fully inclusive.

We define the institutional gear as the ability of governments to strengthen the link among members of the NIS, so that the outcome of this relationship is new products entering the market. In the case of innovation, the

institutional gear refers to closer links, by the capacity of national institutions which generate that inventions enter to the market with relative ease.

It is important to distinguish the relationship between the actors of NIS and the institutional gear. The first concept refers to the existence of links among the actors, while the second concept refers to such link generate ideas and that these ideas reach the market. In developed countries, closer links means more innovation, but in developing and emerging countries, not necessarily links among actors of NIS generate more innovation, because institutions do not necessarily work as in the case of the first world countries. The institutional gear works as an enhancer of these links, because it allows generating conditions of trust that ultimately produce creative destruction.

Overall, economic growth is determined by innovation, but in developing countries depends strongly on the institutional gear, competition, the entrepreneurs and respect for property rights.

4. NATIONAL INNOVATION SYSTEM

In most Latin American and Caribbean economies NIS have been implemented gradually; having the state as a key institution, through programs, policies and incentives that they seek to create the environment and conditions to innovate and compete in national and international matters.

An example of this are the paths developed by Chile, Brazil and Mexico that have made changes in their regulatory frameworks and offered various programs that encourage businesses, universities, research centres (among others), to develop innovation processes.

4.1. Chile

In this case, there have been significant efforts and incremental improvements; by strengthening institutions, policy generation, incorporating highly educated professionals and the supply of funds and programs that promote scientific and technological development.

After several years of testing and experimentation, in 2005, was created "National Innovation System for Competitiveness" (NISC) which has contributed favourably to the development of NIS and has provided guidance for the development of policies and strategies (in the long term). However, the supply of multiple programs supporting innovation lacked of integration and systemic view (Hodara, (2006) & Parraguez, (2009)), given that sometimes competed with each other and there was duplicity of work. Added to this, the programs did not prove their efficiency and profitability.

According to the report of the National Innovation Council for Competitiveness in 2006, the NISC deliver a proposed strategy on innovation and competitiveness, which has served as a guiding framework in recent governments (Sistema Nacional de Innovación (2014)).

Parraguez (2009) point outs that the main programs that support the innovation process are grouped into four ministers who are in institutional coordination. The description of each program was analysed by the OECD and detected a number of weaknesses in the system:

1. Lack of a "culture of innovation" in the business sector
2. Low spending on R & D
3. Shortage of human resources specialized
4. Many research centres with poor quality and irrelevant
5. Few financial support mechanisms
6. Weak links between industry and universities
7. Lack of connection and insufficient cluster firms

The Chilean government took action on the matter and developed and strengthened it NIS, therefore, in 2010 within the "agenda for innovation and competitiveness 2010-2020" all programs, proposals and improvements considered conducting commissions and interagency working groups, as a meeting among public, private actors, academics, civil society, incubators, companies, research centres and universities to share knowledge and generate agreements that achieve growth based on innovation and the creation of links among the main actors in the system.

However, Gobierno de Chile (2013) points out the weaknesses of Chilean companies and some policies should be implemented: improving the quality of human capital, primarily in tertiary education and training; create an innovative culture that encourages companies and other actors to innovate; increase investment in R&D, as compared with OECD countries (2% of GDP), because such country spends less than 1% of GDP and finally, to create a society that is not afraid to develop and learn new things.

4.2. Brazil

The Brazilian case has unique characteristics, because in recent years has made significant efforts to build an NIS. The Brazilian government has a specific Minister in Science, Technology and Innovation who is responsible for formulating policies. In Lula's government, a new legal framework to promote innovation activities was implemented, the Lei do Bem (Law of property) and Lei da Inovacao, which established mechanisms for their financing (Cassiolato et al.,

(2013)). Meanwhile, investment in R & D is greater than 1% of GDP, which comes mostly from the government and a small proportion of private agents (Jimenez et al, (2013)). This demonstrates the government's commitment to promote innovative activity, however, the Brazilian NIS has a weak systemic approach (NESst, 2012), as only 11% of the population has a higher degree, and according to the OECD (2009), cited in NESsT (2012), only 22% of researchers are in the business system vs 80% in the United States. This overview shows that there is still making efforts in the interplay of actors.

To address this environment, Brazil has used technology parks as a tool for linking universities and industry (Romero, (2013)), in 2010, the Technology Park Rio de Janeiro managed to attract 23 research centres to develop research projects (Romero, (2013)).

According to Jimenez et al. (2013), the Brazilian NIS still has room for improvement: investment in R & D remains low and universities and research centres are the first to receive payments, forgetting the productive sector. Another element that describes Brazil's economy is the development of regional innovation systems, given that their regions are very different. On one side is the Northeast, which has lags in education, health, income and access to basic services, and on the other, an industrialized region with opposite characteristics. Therefore it has motivated to develop specific federal programs and policies to each region, which has prevented the development of the Brazilian system.

4.3. Mexico

Mexico has decided to investment in research, scientific and technological development, through the provision of programs, funds and policies that support a NIS. While there have been significant advances in strengthening and shaping NIS, exist some failures of entailment and interrelationship among agents which has caused not develop successfully.

In 1970 arise the National Council of Science and Technology (CONACYT) which serves as the main institution of the state to design and implement policies for science, technology and innovation. Since 2000 the law of science and technology was created and other regulatory changes have strengthened their capacity of planning, design and implementation of public policies through the implementation of six-year programs. These programs establish the commitment to develop their respective laws and commissions for science and technology (Jimenez et al (2013)). However, not all programs have progressed equally in compliance, because federal programs function as proposals and recommendations. For its part, colleges provide individuals highly trained to generate and share knowledge; its funding comes directly from the government, which shows a weak relationship with the productive sector, preventing generate self-financing.

The business sector is the only agent that introduces products, processes or services to the market, but in the Mexican's case presents a particular feature; the process of industrialization seems to have found more effective survival mechanisms (Casas, et al, (2013)) than the interaction with other agents. Of a total of 39,500 companies, only 170 were linked with research institutes and universities and collaborated to generate innovations. This has led to limited innovative activity, and demonstrates that the business sector acting as a single agent in the NIS (Casas, et al, (2013)).

Jimenez et al, (2013) show the disadvantages of the Mexican's NIS. Such author points out that there are a limited number of companies - only 2,120- involved in support programs of CONACYT, which shows the low participation and business interest to develop innovation processes, and the weakness in the Mexican regional governments or regions derived from the environment created by the national policy on industrial development, whose origin is the use of existing resources and inexpensive labour.

The development of collaborative R & D projects are limited because universities and research centres are related to companies only for laboratory testing, technical assistance and training of qualified human capital (Jimenez et al., 2013).

4.4. Summary: Chile, Brazil and Mexico

In summary, the Chilean NIS has closer links among actors, development of agencies, programs, and funds, and more cohesive and coordinated policies. Brazil despite making significant efforts for the formation of NIS, inequality among regions has led to implement specific policies and funds developed a regional innovation system which has caused a weak and disarticulated NIS. In Mexico, progress has been made for the establishment of the NIS, however the only actor that can introduce innovations to the market (companies) is not linked with educational institutions and research centres, and only it is related to the government for financing innovative activities. This context shows a significant break in the system and a relatively low impact on economic growth.

5. INNOVATION AND ECONOMIC GROWTH IN LATIN AMERICA

In this section we analyse the relationship between economic growth and innovation for three countries in Latin America: Mexico, Brazil and Chile. Given that the difference in the economic growth of these countries should be explained (in part) by the level of innovation that exist in Mexico, Brazil and Chile, that is, we seek to explain the differences in economic growth through processes of creative destruction.

The selected countries have very different economies, because while the Mexican economy is focused to growth from outside, Brazil has an economy with emphasis on the domestic market, while Chile's economy is characterized by the export of commodities but with a government pro-active in the regulation of capital (Bizberg, (2015)). Thus, we believe that by using these three countries we cover the economies of Latin America.

Despite the differences among above three countries, there are some similarities that are important to highlight when innovation is analysed. The first characteristic shared by these countries is that their economies generate inequality, in fact Latin America is considered the region with the greatest inequality in the world (Schneider, (2009)). The second feature: these three countries have monopolies and oligopolies (Schneider, (2009)).

The analysis focuses on analysing the economic growth, ie, it seeks whether there are significant differences among Mexico, Brazil and Chile. Later, we will discuss some variables that foster innovation (institutional gear) and others that are seen as products of innovation (patents and Global Innovation Index).

Figure 1 shows the economic growth of the three selected countries in different periods. The average annual growth rate of Gross Domestic Product (GDP) of Chile is higher than the rate of Mexico and Brazil in any of the periods of time, for example, if we take the whole period (1980-2014), Chile has an economic growth above 4% while economic growth in Mexico and Brazil is around 2%. If we take the eighties, there is a reduction in economic growth in the three countries, but still Chile has the highest growth. In the early nineties, Chile registered an economic growth above 6%, while Brazil and Mexico had an economic growth close to 3%. In the early 2000s, Brazil had a (very close to Chile, both 4%) accelerated growth, while Mexico grew at a rate lower than 3%. In the period 2010-2014, Chile remains the fastest growing of the three countries, with economic growth above 4%. Brazil has a positive growth trend from the eighties to the early 2000s, while the Mexican economy is stagnant with economic growth close to 2%. Figure 1 shows that regardless of any time period used, Chile has higher economic growth than Brazil and Mexico. We start from the above observation to continue the analysis, so that we will seek if innovation explains the difference in Chilean economic growth with regarding other two countries.

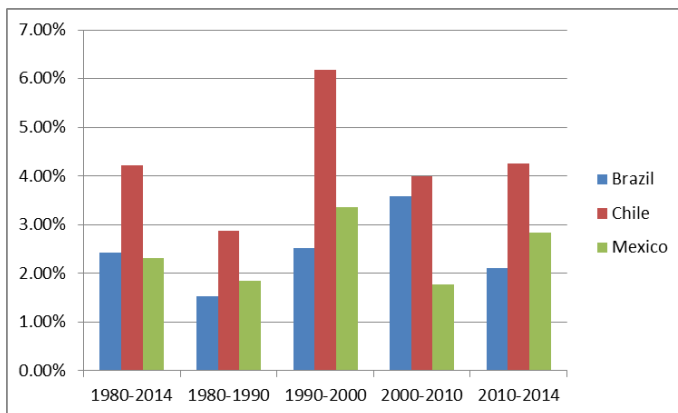


Figure1. Average GDP growth, 1980-2014

Source: WEO (IMF).

Table 1 serves to reinforce the conclusions of Figure 1. The following table shows GDP per capita in purchasing power parity of the three selected countries. GDP per capita in Chile is higher than Mexican and Brazilian, and the growth rate of GDP per capita in the period 1980-2014 for Chile (3.04%) is three times higher than Brazil (0.87%) and four times that of Mexico (0.69%). If this trend continues, Chile will move away increasingly from Mexico and Brazil, because it has a higher GDP per capita, and has been growing at a higher rate.

Table 1

GDP per capita (PPP) and growth of GDP per capita (PPP) for selected countries

Country	GDP per capita (PPP) 2014	Growth GDP per capita (PPP)1980-2014
Chile	22,971	3.04%
Mexico	17,881	0.69%
Brazil	16,096	0.87%

Source: WEO (IMF).

To analyse the impact of innovation on economic growth differential between Chile and selected countries, we have chosen the Global Innovation Index (GII), which measures the overall level of innovation of a country. Table 2 shows that GII of Chile (40.6) is higher than GII of Brazil (36.3) and GII of Mexico (36).

Table 2

Global Innovation Index for selected countries, 2014.

Country	GII		Innovation input sub- index		Innovation output sub- index	
	Score	Rank	Score	Rank	Score	Rank
Chile	40.6	46	48.4	37	32.8	54
Brazil	36.3	61	41.7	63	30.8	64
Mexico	36	66	42.2	62	29.9	70

Source: Cornell University, INSEAD, & WIPO

Table 2 also shows the input and output sub-indexes of the GII. The first sub-index is built on the necessary inputs to innovation is given and shows whether conditions in a country to generate creative destruction, and like the GII, Chile appears in first position of the selected countries. The second subscript shows innovation products, and as in previous cases, Chile appears first. In general, we can say that the spread of Chilean economic growth with respect to Brazil and Mexico is explained to some extent by the greatest innovation of Chile.

In order to refer institutional gear, we selected the variable University / Industry Research Collaboration (from GII), which measures research links between universities and industry. In Section 3, we noted that the institutional gear generates economic growth, because it drives creative destruction. Figure 2 shows that Chile has the highest indicator, then follow Mexico and finally Brazil. With the information in the following figure, it can be noted that economic growth in selected countries is related to research links between universities and industry. The institutional gear refers to institutional complementarity generates creative destruction, either through stronger links between agents of NIS or promoting such links.

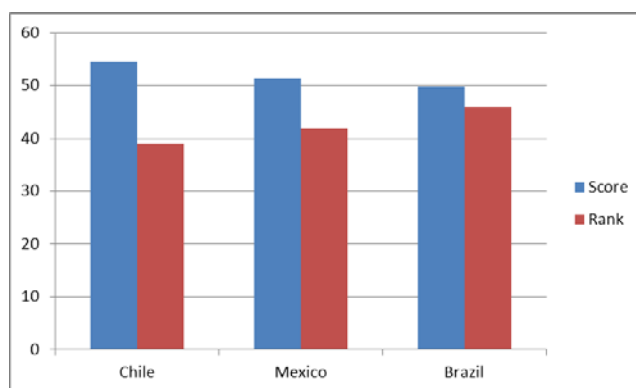


Figure 2. University /industry research collaboration

Source: Cornell University, INSEAD, and WIPO

We use the average annual growth rate of patents by different time periods for selected countries. Figure 3 shows that Chile has had the highest growth rate of patents in the period 1980-2010, also in other decades had highest rates (except for the 2000s). Brazil has had growth rates below to Chilean patents. In the case of Mexico, in the eighties and nineties, had negative rates of growth of patents, while in the 2000s had a considerable increase in patents.

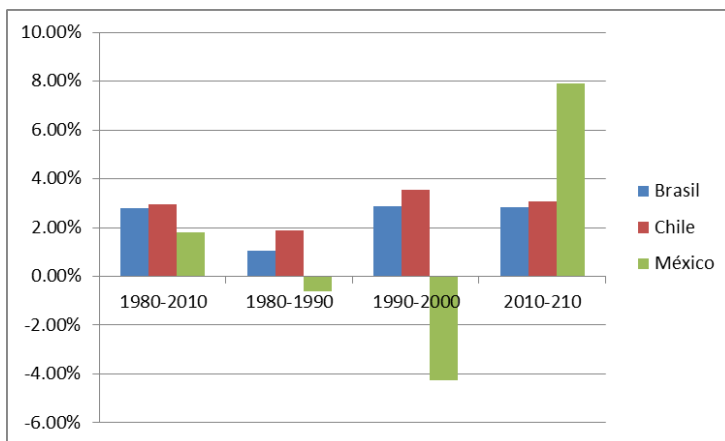


Figure 3. Patents average growth rate (per year) for selected countries

Source: World Development Indicators (World Bank)

Entrepreneurs stimulate innovation, because they turn inventions into innovations. Entrepreneurship, to encourage innovation, has a positive impact on economic growth, so that with the previous variable we explain the economic growth differentials between Chile and other countries.

Figure 4 shows the percentage of people aged 18 to 64 who tried to start a business in the last three years. Entrepreneurship in Chile has a positive trend, because such variable has been increasing in recent years. The Chilean entrepreneurship is larger than Brazil and Mexico in almost all the data series. Only in 2005, Chile had a lower level of entrepreneurship than Brazil and Mexico. Moreover, entrepreneurship in all three countries decreased in 2005, and has subsequently increased to Chile and has stagnated for other countries.

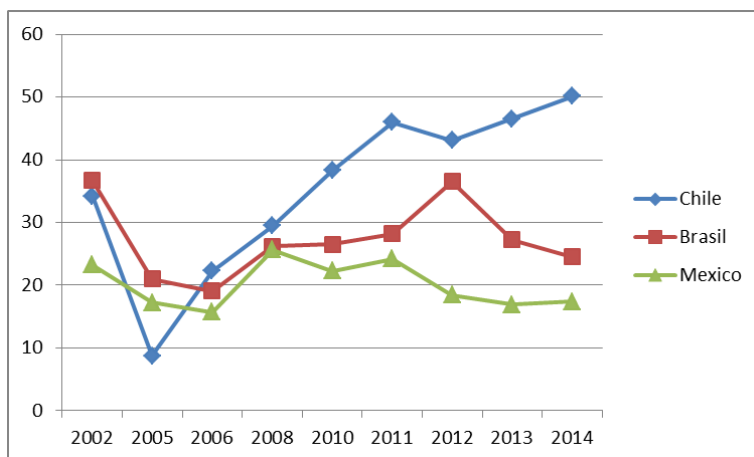


Figure 3. Percentage of 18-64 population who intend to start a business within three years, for selected countries

Source: *Global Entrepreneurial Monitor*

6. CONCLUSIONS

Chile's economic growth has been high in recent decades and is even comparable with countries that report higher economic growth in the world. On the other hand, Brazil and Mexico have an economic growth below to the Chilean case, which led us to analyse the role of innovation in economic growth differentials across the three countries.

Using the variables of innovation for the three selected countries we found that the highest economic growth in Chile is explained by innovation and better conditions for creative destruction that exist in that country. Other variables that distinguishes Chile from Brazil and Mexico, is the % entrepreneurs, because there is a higher proportion of entrepreneurs in Chile.

The patent is one of the variables explaining economic growth. In the text we have found that the growth rate of Chilean patent is greater than other selected countries. On the other hand, the level of entrepreneurship in Chile is higher than in Brazil and Mexico, ie, in Chile there are better conditions for people who decide to start a new business. The variable used as a proxy of institutional gear, University / Industry research collaboration gave the expected results, because Chile has the greater links between universities and industry favouring innovation.

Overall, the comparative analysis among Chile, Mexico and Brazil has showed that innovation is positively related to economic growth in the medium and long term. In the case of Chile, despite sharing many similarities with other

countries, it has achieved high economic growth in the last three decades driven by innovation. Chile's spending on research and development (% of GDP) is around 1%, lower than the Brazilian, which shows that the links between innovation and economic growth are complex.

The analysis can be extended to all of Latin America, and it is even possible to measure econometrically the relationship between economic growth and some of the variables of innovation. However, the results obtained allow us to move forward in analysing the impact of innovation on economic growth.

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MANAGEMENT OF INNOVATION PROCESS IN SERVICES: MICRO AND SMALL ENTERPRISES OF THE METROPOLITAN REGION OF CAMPINAS

JEL classification: L22, L26

Abstract

This study aims to explore the management of the innovation process in a context for small services businesses. Innovation is not a new concept, but its perception as a process, detached from randomness, it is. Understand innovation as a process is what allows its management as a tool to improve results, competitiveness and to the perpetuation of the company. The study is a qualitative research that consists in the content analysis of structured interviews held with companies with services in their portfolio, using innovation-focused National Quality Foundation (FNQ) questions. The following categories were identified during interviews: Innovation Understanding, Innovative Ambience, Innovation Process Management and Learning during Process. Also, objective aspects of innovation, such as planning, goals and KPIs, and subjective aspects, such as creativity, learning environment and a support structure were explored, for the 02 aspects, when integrated and successfully managed with multidisciplinary tools, are the key to take a company to the next level.

Keywords: innovation, innovation process management, services

1. INTRODUCTION

This work is a study focused on the management of the innovation process in small service sector companies, specifically in micro and small businesses in the metropolitan region of Campinas. Innovation is not a current concept, since there has always been innovations in human history, but its management, it is (TIDD; BESSANT; PAVITT, 2008), and thereby understand how this management of the innovation process takes place in a new global context (CASSIOLATO; LASTRES, 1998), where organizations are inserted, is highly relevant to the perpetuation and prosperity of companies (GORNI; DREHER; MACHADO, 2009). Still according to Gorni, Dreher and Machado (2009) and in other words, manage and invest in innovations can enable organizations to remain competitive and active in a market increasingly complex.

In the service sector, there are additional characteristics to be considered during this innovation process management (SUNDBO, 1997), for example, the ease of imitation, as it is not possible to register or patent a service innovation, as pointed out by Voss et al (1992, cited Sundbo, 1997). In this sense, it is even more important to understand innovation as a continuous process, acting as a channel of inexhaustible potential ideas and, therefore, continue generating innovations to keep the company in a favorable competitive position (SEBRAE, 2009). There is a gap of knowledge regarding how to systematize all aspects of innovation to make it the company routine (SUNDBO, 1997).

1.1. Description of the problem

The world is not the same as 50 years ago (CASSIOLATO; LASTRES, 1998), such that the line between goods and services is increasingly tenuous and the emergence of new enterprises, generally small and that mix both, grows every day. Among that context, emerges the following research question: How are the processes of innovation perceived and managed in micro and small service sector companies in Campinas?

1.2. Objectives

This study has the general objective to verify how managers and employees of small businesses in the service sector understand, identify, map and manage the innovation process. It aims, in particular, to verify how managers and employees of this type of company understand, how and with which methodologies or tools manage the innovation process in their company. It also aims to understand how managers and employees identify and manage the innovative ambience in this type of company. It is hoped to obtain this information that complement the research problem with the study of micro and small businesses in the metropolitan region of Campinas.

2. THEORETICAL

2.1 Concept of Innovation

According to Tidd, Bessant and Pavitt (2008), an idea consists in proposing something new, different from what already exists. The construction of this idea into matter or something tangible makes it an invention, because it takes the idea out of the abstract field and enters it in the physical realm. Finally, the application of this invention, when converted into results for the company can be defined as innovation, that is, involves the sale and subsequent acceptance of consumers as to the novelty (AFUAH, 2003).

There are two types of innovation, the first may be classified as discontinuous innovation, radical rupture or even designated as a breakthrough moment, since in this case the changes are designed to take businesses from a certain level of results to another, higher than the first one (TIDD; BESSANT; PAVITT, 2008). The second type of innovation can be classified as continuous innovation, evolutionary or even continuous improvement and that is often associated with Japanese practice named Kaizen, which are small improvements made systematically and consistently on processes already established and for which the perception of improvement in the outcome is incremental (TIDD; BESSANT; PAVITT, 2008).

In any case, the concepts presented above have been formulated with an initial focus on products. Although important for understanding the innovation in a systemic perspective, considering the new global context in which the organizations are inserted and also in which the importance of the service sector prevails, Sundbo and Gallouj (1998) presented four possible types of innovation in services:

- a) Service Innovations: creation of a new type of service, previously not provided by the market.
- b) Process innovations: new ways to provide a service to the client, in production processes or customer service directly.
- c) Organizational Innovations: new ways to manage the organizational routine. It is noteworthy that it counts as innovation only if it generates measurable changes in the results, as stated by the Oslo Manual produced by the OECD (1997).
- d) Market Innovations: new markets yet undiscovered.

Service companies can work simultaneously with more than one type of innovation presented above as they are not exclusive.

2.2. Innovation and the Paradigm of Strategic Innovation

Sundbo (1997) proposes a new stream related to the marketing aspect of innovation, and named by him as the Paradigm of Strategic Innovation. Unlike other existing mainstream concepts of innovation, the Paradigm of Strategic Innovation applies to the service sector, for it emphasizes that the main determinant for innovation is the company's own strategy, in other words, innovation is not useful to a company if it does not help in achieving its vision and strategic goals (SUNDBO, 1997).

2.3. Innovation Process

There is no single approach to ensure success, since innovation can be developed from a number of different models in order to meet in the best possible way the needs and culture of each company (SUNDBO, 1997). All methodologies reviewed, however, follow the same line of thought for the innovation process, presented by a central model proposed by Tidd, Bessant and Pavitt (2008) and that counts with 4 steps: search, select, implement and learn.

The first step, search, aims to seek and analyze internal and external environment of the organization, looking for threats and opportunities for change, for example, benchmarking between businesses or programs that encourage employees to propose new ideas. The second step is to select, which aims to understand which of the ideas collected in previous step are feasible, taking into consideration technical aspects such as cost and time, and the organization's strategy.

The third stage is intended to implementation of the selected ideas, turning them into projects, which usually follows concepts related to project management and engineering. Last step, named learning, derives from the process as a whole, for the particularities, and especially the difficulties encountered on the way to bring something new to reality generate many lessons, to be learned and used in future innovation processes.

The model proposed by Tidd, Bessant and Pavitt (2008) is endowed with a certain generalism as it regards both products and services in its preparation. Sundbo (1997) also presents a representative model of the innovation process that follows the same logic, but drawn from research exclusively with service companies. It is also divided in 4 steps, same as the previous one, and these steps are: generate ideas (similar to the search phase of the previous model), transform the idea into an innovation project, development and implementation, the latter two being similar steps to the implementation of the previous model (SUNDBO, 1997).

The Sundbo model differs from the other at a crucial point, that is, the learning step, which can be prejudicial if it contributes to perpetuating the erroneous idea that there is no systematic learning innovation in services. For

that reason, it is considered important that both are presented in this study.

These models help to consolidate the path pursued by organizations nowadays, which is performing innovation in a repetitive and systematic manner to make it a process that filters ideas and generates outputs like a pipeline to create new products and services, detached from randomness. (SEBRAE, 2009).

2.4. Innovation Process Management

Within the literature, there are several definitions of innovation management. Thus, from the innovation process, each company uses the tools that best fit their reality to manage it. In other words, there are no exclusive tools to manage innovation, as innovation should be rooted in the organization as a whole, across all different areas. The tools used are multidisciplinary.

Innovation management is well done when it integrates objective characteristics, such as goals and result measurements with subjective characteristics, such as creativity (PACHECO; GOMES; SILVEIRA, 2013). Finally, innovative companies are those who routinely practice the management of innovation, in both aspects, separating it from an aleatory event (TIDD; BESSANT; Pavitt, 2008).

To better describe the concept of management of the innovation process in view of the present work, the following figure was prepared:

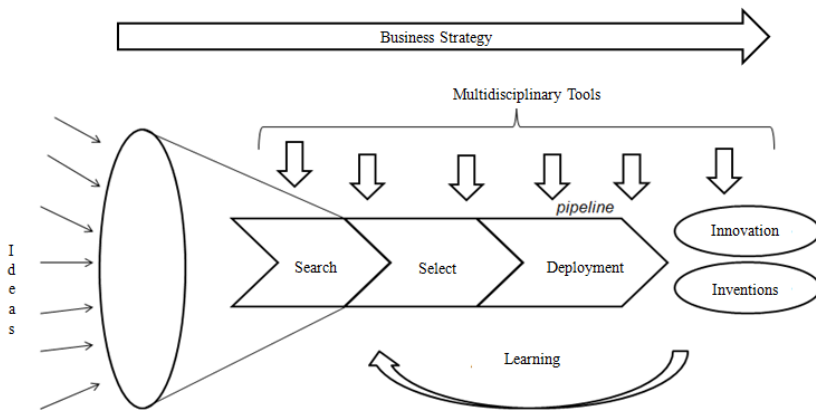


Figure 1 Innovation Process Management

Source: prepared by the author based on the concepts of Tidd, Bessant and Pavitt (2008), Sundbo (1997), Sebrae (2009) and Pacheco, Gomes and Silveira (2013).

In main terms, the first item to be considered is the search phase, in which the organization operates like a large funnel, collecting ideas from diverse backgrounds. This is followed by the selection of ideas according to criteria predetermined, so that in the third stage, they can be implemented with prototypes and market testing.

The outputs of this process are innovations and inventions in an uninterrupted pipeline, translated into new services offered, processes, markets and routines in the service organization. If the process output generates results for the organization, then it is considered an innovation, otherwise it is only an invention. Both generate learning for future cases.

Throughout the process of innovation, a variety of multidisciplinary tools assists in planning, control and measurement of results, for example, the PDCA cycle and the matrix that assists in developing a consistent action plan, called 5W2H, among others. It is noteworthy that the vision and strategy of the company should direct the whole process and that, at all stages, especially in the first ones and the structure of the organization and its routines act as promoters of innovation, to provide a creative and of easy-interaction environment.

3. METHODOLOGY

The research is considered qualitative, because it proposes a thorough investigation of reality, taking into account the scenery and experience of those interviewed as part of the responses obtained (BARDIN, 1977). It is exploratory, as it aims to provide familiarity with a certain problem and make it more accessible and known. During the interviews, the same questions were asked to all respondents, characterizing thus the process as structured. For the analysis of the results, within existing techniques of content analysis, it was decided to proceed with the categorical analysis, which proposes splitting the text into categories, found from similarities in different responses and that are relevant to the response of the research problem (BARDIN, 1977).

3.1. Profile of Respondents Enterprises and Respondents

This research refers to micro and small businesses in the metropolitan region of Campinas, state of São Paulo, working with the marketing of services within their portfolio. The profile of selected respondents is made up of 10 people with different positions working in 05 different companies, which were selected based on meeting the proposed criteria, convenience and the ease of access of the researcher to the necessary data and people.

The chosen tool for data collection was a structured interview in which the same 08 questions were asked in the same order and the same manner for all respondents. The interviews took place during September and October, 2014 and the average time with each respondent was 40 minutes. The questions asked

were adapted from the material that the National Quality Foundation (FNQ) uses to identify the micro and small Brazilian companies with excellence in innovation management, and are part of their questionnaire constructed with the methodology of model of excellence in management (MEG). Out of the 13 questions proposed by FNQ in the questionnaire subsection "Innovation", 07 were selected and 01 more was increased by the author, following the response criteria to the question problem and the objectives proposed by this study.

3.2. Data Analysis

Within the content analysis, it was decided to proceed with the categorical analysis. After literal transcription of audio interviews, NVivo version 10 was used for consolidation and data analysis. The test version of the software is available for download at the official software website.

The process of categorical analysis occurs following 03 key steps, as proposed by Bardin (1977): coding, categorization and inference.

The encoding step took place with the perusal of all verbatim transcripts of interviews and, from that, the full import into the NVivo tool, and organization by question and relevance.

In the second step, categorization, it was necessary a new detailed reading of all answers obtained, but this time already organized by questions asked. From this, mooring were created with the help of NVivo tool, grouping similarities in the speeches of respondents in key points, also found in bibliography. The analysis was carried out *a posteriori*, since the categories for grouping were defined only after reading and familiarization with the responses.

Finally, in the inference step, it was necessary to in-depth analyze information obtained in order to connect it to the theoretical aspects studied previously. In other words, analyze to identify key similarities and differences between reality and literature. The correlation matrix tool was used to help link the main theoretical aspects found in the literature with the specific objectives of the study and with the questions made to the respondents (and responses obtained from them).

Next, it will be presented the analysis of the data obtained, as well as excerpts from interviews conducted to serve as the argument proof of evidence.

4. RESULTS ANALYSIS

Two general approaches were identified, and from them, 02 relevant categories were selected in each, following the steps proposed by Bardin (1977) in the categorical analysis. Approaches and identified categories are described in the table below.

Table 4

Definition of approaches and categories

Approach	Categories
Subjective Features of Innovation	Understanding of Innovation Concept
	Innovative Ambience
Objective Features of Innovation	Innovation Process Management
	Learning in Innovation Process

Source: prepared by the author from survey data

4.1. Approach 1: Subjective Features of Innovation

Two main approaches were identified to help answer the research question, within the theme of innovation management process, because the integration of these two approaches is essential for its successful management.

The first relates to the subjective characteristics of innovation (PACHECO; GOMES; SILVEIRA, 2013), which elements have also been worked with the nomenclature of informal interactions system by Sundbo (1997) and strong support structure with effective organizational routines to support the execution of innovation by Tidd, Bessant and Pavitt (2008). This approach is depicted in this study by the two categories below.

4.1.1. Category 1: Understanding of Innovation Concept

Regarding the understanding of innovation, we observed that even without being familiar with the concepts espoused in the studied literature, respondents understand what is innovation. Most tend to perceive innovation as something that escapes the routine and that is linked to results for the company, as advocated by Tidd, Bessant and Pavitt (2008) and noted below:

C5E9: "Innovation I think that's when we can develop something that has not been thought out and has a utility. It's not just develop something new, but useless. Something that will help people's lives ... will facilitate, a service or product with a certain utility. "

It is worth highlighting that for the respondents of 02 companies, innovation is perceived only as something radical, that would necessarily provide a great leap of results for the company. Also in these companies, innovation was identified with reactive context, that is, required only upon crisis. The excerpts below prove this argument:

C3E5: "So the crisis itself makes you innovate, pursue new things, new

techniques ... To be even more profitable."

C4E6: "Innovation is a pioneer action in the segment share, which is what makes you pass in front of your competitors."

This category proposed by the author and called "understanding of innovation concept" can be justified by the positioning of Tidd, Bessant and Pavitt (2008), that innovation is the application of an invention that is converted into results for the company, whether incremental or radical. The Oslo Manual (1997) corroborates stating that, even if addressed to organizational changes, it is only considered an innovation if there is measurable improvement in the results.

By the fragments presented and strengthened by the excerpt below, it emerges that respondents understand the concept of innovation, but they do not see it as a daily process, disconnected from randomness.

C4E6: "I'm always analyzing the sales area, asking them how the market is reacting ... Yeah, and acting and from there, we ... Exchanging ideas, decisions are made. [...] This is done informally, according to the progress of the work we talk and inform each other".

4.1.2. Category 2: Innovative Ambience

This category indicates how the innovative ambience is administered within the companies studied, given their importance to the innovation process. Innovative ambience characterizes the subjective aspects that indirectly stimulate innovation as a constant practice in organizations.

In this sense, it was identified in the speech of respondents 03 key elements which fall into this study window. The first is the favorable environment for the emergence of new ideas, followed by experimentation environment that tolerates error and the latter is the recognition of the employees involved in the innovation process. Each will be worked individually below.

About the first one, an environment that enables the emergence of new ideas, it is noted that most of the answers obtained in the studied companies highlights the stimulating interaction and cooperation among employees on a daily basis, important elements for the construction of that environment, as advocated by Scherer and Carlomagno (2009) and Gomes, Pacheco and Silveira (2013). The excerpts below demonstrate this observation:

C5E10: "I think the environment itself. Here everyone can put on their ideas and everyone has open doors here with us. We have a fully participatory management, they are involved in most matters of the company. [...] They participate and I think that's what we really want, this collaborative environment, because we also get a lot from their opinion. "

It should be mentioned that in 02 of the 05 companies studied, the favorable environment for the emergence of new ideas is not encouraged among

company employees, as the activity of thinking new ideas is centered on the high leadership of the company.

C2E4: "Normally it is always from the management to the operational. Rarely, an idea from operational people gets to be discussed at the board, among the executive directors".

Regarding the second element identified in the speech of respondents - the experimentation environment with tolerance for error – it stood out in the responses again the presence of the cooperation element, defended by Gomes, Pacheco and Silveira (2013) as a factor that encourages this type environment.

C1E2: "Then you get the product and markets it and expect it to work, and it is not always so. Sometimes we launch a product or service ... We do it all, plan, invest ... I already invested 400, 500 thousand dollars on a product and it is kept in the drawer because it does not survive in the market. Even the people testing it and using it before, it might reach a point where it just stops, you never know why. "

One of the respondents pointed out understanding the importance of a tolerant environment to error, but showed that she finds it difficult to establish it due to lack of technical sources, as advocated by Tidd, Bessant and Pavitt (2008) as one of the basic elements for successful innovation. Technical sources are part of the support structure, as pointed out previously in this study, and provide tangible evidence to the execution of innovation, for example time, money and adequate equipment. In this case, the issue indicated refers to the limited number of employees and departments in the company, which impacts on the time available for activities such as testing innovations.

C3E5: "So unfortunately there's no time to stop and talk and say let's think about this. Because we don't have departments for this, what would be the correct [...] No, everything has to be from one source only, which slows the process. "

Considering the last identified element - recognition of employees involved in the innovation process - it was possible to clamp data from only 04 companies because one of them has only 02 employees. Of these 04 companies, only 02 have adopted formal practices in this regard, as excerpt below.

C1E3: "If one had an idea and is working in this idea, and it works, he will become a partner of the company. There is no better recognition than that. In sales, the person who gave the idea will have the bonus attached to it. Sometimes there is cake too, little parties and celebrations. There is always a celebration to recognize the person or team, but there is always some sort of bonus for them too. "

As stated earlier, the other two companies do not adopt recognition practices and concentrate the whole conception of new ideas in the senior leadership of the company.

C2E4: "There is no financial recognition for leaders. I think the only recognition is that management and the board may allocate more confidence to the professional who is there, really engaged, wearing the company's shirt, seeking for a breakthrough. But regarding to financial bonus or any prizes, no, that does not happen. "

In general, it was concluded that the studied companies expend energy and time keeping a good focus on the subjective aspect of innovation, that is, investing resources in supporting elements that stimulate primarily the generation of new ideas. This finding relates to the conclusions reached in the analysis of the first category, which stated that innovation is understood as concept, but not seen as a process. By not being seen as such, it is evident that the main focus of businesses is on prioritizing the emergence of new ideas. However, as pointed before, this is the step of innovation that is least possible to manage.

4.2. Approach 2: Objectives Features of Innovation

The second approach identified regards to the objective characteristics of innovation, also studied with the nomenclature of strategic management system by Sundbo (1997) and complemented by SEBRAE (2009) with the possibility of using multidisciplinary tools relevant to each stage of the process innovation and the measurement of results obtained with this process (PACHECO; GOMES; SILVEIRA, 2013).

4.2.1. Category 3: Innovation Process Management

In this category, it was selected in the speech of respondents evidence to show the tools used to manage each step of the innovation process.

Regarding the innovation process, Tidd, Bessant and Pavitt (2008) defend a central model consisted of 04 steps: search, selection, implementation and learning. Sundbo (1997) complemented with his model identified exclusively to the services sector and also consisted of 04 steps: generate ideas, transform the idea into an innovation design, development and implementation. The learning stage of the first model will be discussed in a different category due to its importance and to the fact that is not a step considered in both models.

Considering the first step, the search or generate new ideas that can be converted into innovations, 02 companies presented in their routine, a structured time to discuss ideas.

C5E9: "We decided to invest in these Fridays, which is precisely to take the people off the routine, the day to day, and leave them free for a period so they can talk, work on what they like and have ideas. It is fully open, everyone can talk and suggest. [...] I think it's a matter of practice, this process. Each time

more they release themselves, loosen up and start giving ideas, suggesting ".

Companies perceive this aspect as much harder to manage, as advocated by Sundbo (1997). The suggestion proposed by the author is to structure the process, detaching it from randomness (HAMEL, 2007), for instance, like the company mentioned above, that structured a formal time weekly to discuss and suggest new ideas.

As a complement, all companies studied described that they seek ideas from internal and external sources to the organization:

C3E5: "That's what I said, going to fairs, opening our minds. In fairs you see many new things, all that is new in market trends in design in the world happens in the fairs, so there you know everything that is happening. And the media shows that, in decorating magazines, for instance. So you have to be always catching up, always updated on the market to have new ideas. We even search it. "

Regarding the next stage of the innovation process - the selection of new ideas or transformation of the idea into an innovation project - most respondents indicated not having a formal procedure established with clear selection criteria, which differs than what is defended by Sundbo (1997) concerning the paradigm of strategic innovation as a driver for innovation. The companies studied stated that they work on the critical analysis of ideas, which corresponds to the formal stage of the model proposed by Tidd, Bessant and Pavitt (2008), but the periodicity of meetings is by demand and criteria used are mostly subjective, not considering the organization as a whole.

C4E6: "[The selection of ideas] is studied case by case. Sometimes it is by trial and error, but is generally decided case by case."

C2E4: "In reality the ideas are discussed. An idea comes and is asked of the leaders that they review each and from there, ideas start to emerge, the pros and cons in the view of each. It is usually made a report with the opinion of all leaders and then it is re-evaluated individually. Each leader will see his or her points, their ideas, what is really doable, important. What is really relevant or not. Then the matter is discussed again until such time when it becomes a project. "

The two service companies related to technology developed in their routine the concept of prototype or MVP (Minimum Valuable Product) to test their products and services on the market before releasing them. This relates to the implementation stage in Tidd model, Bessant and Pavitt (2008) and development stage on the model of Sundbo (1997).

C5E10: "Then you begin to schedule in-person meetings to show the prototype to see the interest of the person, to see if they really want it, if they would like to have the product and especially if they would pay for the product. [...] Of course, we've learned already that it does not help to make the investment

to find out later that it was not quite what the market wanted. So this is a process that is clear to everyone here. First let's test and see if there is interest, to see whether it is worth continuing the investment. "

Still on the third step of the innovation process - implementation - other companies follow the implementation of innovations without formal measurement tools or monitoring. This is done only by the feeling generated by the released innovation, years of marketing experience and conversations with employees working with innovation.

C2E4: "Monitoring is still centralized in the executive management. So how the project will always be divided between areas, as I already explained, each leader will monitor the performance of their staff in implementing that innovation in the way he feels is appropriate. "

Regarding the measurement of the benefits of innovation, Tidd, Bessant and Pavitt (2008), Afuah (2003) and others quoted throughout this study, argue the necessity to exist direct or indirect financial results for the company, accomplished through the novelty for it to become an innovation. In this regard, it was noted that most companies studied only measure the impacts of innovations in a reactive perspective, that is, only when there is a necessity. None of the companies routinely calculates what percentage of total sales comes from innovations, for example.

C4E6: "We try to analyze the result, not necessarily financial, it could be increase of contacts, more sales, margin increase. Each innovation has its pro. The last times that results were analyzed, it happened by necessity, but we are now trying to structure and improve it, but haven't started yet. There are tools that an IT company is developing and can be used to measure those results to us."

Only one of the companies studied measures the benefits of innovation formally and acts upon it.

C2E4: "This measurement is made through the financial area. They go get the financial net result of this investment and also the customer satisfaction survey. The staff of marketing area, which is a contractor, do the survey after each implementation, there is a systematic for it. Usually these results are passed along at a meeting in a more informal manner. "

Thus, it can be concluded that service companies find it difficult to structure and formalize the steps of the innovation process so that it is connected to their daily lives, as proposed by Hamel (2007). There are specific practices aimed at some specific stages of the process and it is clear that companies that work with technology are a bit more advanced in this respect, but in general, we found a gap between literature and reality at this point. Management practices are few, isolated and instinctive. This conclusion is also related to the observed fact that the companies studied do not see innovation as a process, which blurs to them the real need to use tools to make its management.

4.2.2. Category 4: Learning in Innovation Process

This category reflects how the learning happens in micro and small companies studied, from the point of view of the innovation process. Therefore, the analysis considers two main elements identified in the speech of respondents, which are the possession of knowledge, including information sharing and interactions across the enterprise, as well as the active involvement of the same when regarding the internal innovation process and the learning management from lessons learned during the different attempts to innovate.

The first analysis was made in relation to the arrest of knowledge, defended by Scherer and Charlemagne (2009) as part of an organizational structure that can inhibit innovation if there is. Tidd, Bessant and Pavitt (2008) confirm the importance of engaging the entire organization in the innovation process because the support structure plays a critical role in the success of the process.

In this sense, within the studied companies it was found that most of them have information-sharing practices with the team, even if informal. The excerpts below prove this conclusion:

C5E8: "The advantage of being a small business is that communication is very easy here, man. Even verbal, you know, we can exchange one idea with the staff here and even the partners are very close to us. So you can, for example, present an idea in reserved periods. "

Two of the companies interviewed have the knowledge only at the top of the organizational chart, which impacts on the involvement of the organization as a whole and the timing available for innovation, one of the difficulties of innovation already pointed out by Scherer and Carlomagno (2009).

C2E4: "Leaders do not receive a report with printed results, not financial nor operational. We are only told that the new program worked out and eventually if it got some notation or improvement pointing in that project, and when is possible, we do the improvements suggested if it is still in the budget projected for implementation. "

The following analysis took into account the learning management, that is, how companies deal with the lessons learned along the attempts to innovate. In order to learning to happen, innovation needs to be treated as a process and, according to SEBRAE (2009), the focus of successful management of innovation, both for products and for services, should be learning.

In this respect, it was found similarity in the way the companies studied (and that share information, as it is a prerequisite for this second analysis) address this point and what was found by Sundbo (1997) in the literature. According to him, the process of innovation in services is still based on trial and error. There are attempts to learn, but this is done informally, with the experience of time in the segment, for instance, and not how it should be done, that is,

systematically and efficiently (Sundbo, 1997).

C1E2: "I spoke to you that we have the know-how of development because we have been through several processes and several launches, so we know what works and what does not. [...] Like any cultural process, it is informal. Learning happens naturally within the group. "

5. CONCLUSION

5.1. Conclusions on Innovation Process Management in Service Companies

A detailed analysis of the categories identified in the speech of respondents of this study and presented in Chapter 4 highlights the 04 main elements discovered: (i) the studied companies understand the concept of innovation, but not visualize it as a process; (ii) there are isolated management practices to the theme, but they are instinctively realized and not in a structured manner; (iii) companies are concerned to promote practices that encourage innovative ambience, mainly related to the generation of ideas and (iv) learning occurs informally and unstructured over time, there are no practices or tools that encourage management of the knowledge obtained from the innovation process.

On the first consideration (i), it is understood by the transcribed excerpts, that the companies surveyed know what an innovation is, but concerning the efforts to guarantee it, is noticeable that there is no systematic and continuity assured.

By the second consideration (ii), it is clear that the companies interviewed whose field of activity is linked to technology, can lead some parts of the innovation process in a structured way. When all the companies surveyed are considered, however, it is noticed that the practices linked to the management of the objective part of innovation happens instinctively, mostly according to the personal perception of those responsible for it, accompanied or not by the opinions of employees.

Regarding the third point (iii), it is evident from the presented transcripts that service businesses realize the importance of the support structure for successful innovation and thus, demonstrate the concern to maintain a work environment conducive to innovation. Furthermore, it was noted that there is preponderance of the approach taken by companies to the subjective part of innovation, more related to the generation of ideas, even if there is no systematic effort to bring these ideas to life in a structured way.

Regarding the last element (iv), it is evident from the transcripts of the interviews that there is a concern in keeping the knowledge gained, but it is clear that the understanding of respondents is that this can only be done instinctively and naturally. In other words, from their point of view, it is not possible to formalize this process. It is also clear that innovation often happens in a trial and

error process. This point differs from the literature, which clearly shows that learning is a key element for a successful process of innovation and can be stimulated in the day-to-day.

In this sense, and in response to the first specific goal set for this study - see how managers and employees of this type of company understand, how and through which methodologies manage the innovation process in your company - we note that there are still difficulties in managing the objective aspect of innovation, for example, in establishing tools and clear criteria for selection of ideas, implementation and measurement of innovation benefits, which relates to the fact that small service businesses understand the concept of innovation, but do not perceive it as an ongoing process detached of randomness (Hamel, 2007).

Aspects such as learning and measurement of the benefits of innovation are deficient in service companies as a whole.

Regarding the second specific goal - aims to understand how managers and employees identify and manage the innovative ambience in this type of company - it is noted that there is in service businesses a concern for establishing practices that encourage the emergence of ideas, as a collaborative environment, interaction, experimentation and recognition. This translates as the subjective aspect of innovation, also called support structure, and defended by Tidd, Bessant and Pavitt (2008) as a key factor in the successful management of the innovation process. In this aspect, it was observed in the study similarities to the literature, except in one case which highlights the lack of technical sources, the number of people is insufficient to provide an environment oriented to innovation.

In this way, problem question and the goals of this study are answered.

5.2. Contributions and Limitations of the Research

Considering the presented conclusions and answers obtained for the proposed objectives initially, it can be said that this study contributed to the expansion of the academic content of the theme of the management of the innovation process in service companies, since this topic is still little explored, especially in Brazil.

The practical contribution of this study is that it allows company managers and employees the opportunity to learn more about innovation and compare their reality with theory and also to the reality of other similar companies. It gives a data based perspective on innovation, instead of only abstract concepts. In addition, the results presented may contribute as a trigger to a change of mindset on managers and employees, which could hopefully lead to the execution of real change in different incorporations, by the adoption of a culture of managing innovation process as a routine and as a strategy to leverage results.

Finally, still regarding the practical contribution, the results presented contributed to the companies studied, as it revealed relevant data on the subject. This could have instigated an interesting reflection on the companies studied regarding their current practices in innovation process and future perspectives.

However, one can point out the limitations to this research: the first relates to the diversity profile of the chosen respondents. Since they are from different acting branches, connected only by the element of having services in their portfolio, the results of the analysis can be considered generic; the second element refers to the number of respondents, which was limited to 10. In this case of a low number of respondents, inferences cannot be made to the Campinas metropolitan region as a whole from the obtained results, so in a future analysis, it would be interesting to repeat the interviews with a larger sample. Finally, all respondents are located in Campinas, then before generalizing conclusions, it would be appropriate to repeat the analysis in other locations.

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MACROECONOMICS

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BUSINESS ENVIRONMENT AND ECONOMIC GROWTH: IS THERE A LINK?

JEL classification: L26, O57

Abstract

What role does the business play in economic growth? What circumstances are necessary for the stable business development? Recent literature focuses on the factors of business environment promoting or constraining firm growth. Using the country aggregate values of the firm-level World Bank Enterprise Survey (WBES) data on the subjective estimates of the business obstacles 128 countries are classified into six clusters. Due to the fact that firms report many obstacles to growth the contributions of 13 obstacles to business environment are recalculated for understanding the major business constraints. Lastly, cross tables analysis finds that there is a correlation between the prevalence of the business obstacles and national income growth, export growth, high-technology export. The results have important implications for the priority of reforms. Corruption, electricity and tax rates are the main business constraints in the world. Moreover, access to finance and competition in the informal sector of economy are also the major obstacles for business in the part of the countries.

Key words: business environment, economic growth

1. INTRODUCTION

Business development takes an important place in economic growth at national, regional and international level. At the same time, various macroeconomic factors influence on business development. Firms report macroeconomic and policy instability, corruption and crime, inefficient functioning of financial markets and legal systems, excessive taxation and regulations, poor infrastructure as significant constraints for their performance. Many of these perceived obstacles are correlated with low firm growth.

This evidence can inform policy makers who substantially determine country business environment by legal system, taxation, bank system, courts system. However, even if firm performance is likely to benefit from improvements in all dimensions of business environment, addressing all of them at once would be challenging for any government (Ayyagari, Demirgüç-Kunt and Malsimovic, 2008, p.484) For this reason, understanding how numerous obstacles interact, which of them have a direct impact on firm growth are important for prioritizing reforms. Moreover, the relative impact of obstacles varies across regions and countries which should be taken into account by policy makers.

This paper aims to classify countries by the prevalence of business obstacles. It also analyzes the contributions of various business obstacles to the whole business environment according the opinions of business owners and top managers. Finally, it shows a significant correlation between business environment and the indicators of economic growth.

The paper is based on the firm-level World Bank Enterprise Survey (WBES). The analysis is built on the country-level averages of top managers' respondents about business obstacles. An obstacle is defined as a constraint if a top manager considers this as a major or very severe obstacle.

The rest of the paper is organized as follows. The next section presents a literature overview of the factors of business environment and their influence on firm and economic growth. The third section describes data and methodology. Then the regional differences of business environment are discussed. The fifth section includes correlation and factor analysis of the business obstacles. The classification of the countries by the business obstacles is in the sixth section. In addition, the impact of the business obstacles on the indicators of economic growth is also analyzed in this section. The last section consists of the main results and conclusions.

2. LITERATURE OVERVIEW

Firm growth is the key factor of the development process, which makes it a much researched area in economics. A new focus of the field is the broader business environment where firms operate (Ayyagari, Demirgüç-Kunt and Maksimovic, 2008, p.483). Recent investigations show that firms report many features of their business environment as obstacles to their growth. The features of business environment cover

corruption, crime (Gaviria, 2002), legal system (Beck, Demirgüç-Kunt and Maksimovic, 2005; La Porta et al., 1998; Durnev and Han Kim, 2005), policy instability, finance (Rajan and Zingales, 1998; Wurgler, 2000; Galindo and Micco, 2007; Ayyagari, 2008), taxation (Fisman and Svensson, 2005), business regulations (Djankov et al., 2002; Klapper, Laeven and Rajan, 2004), employment regulations (Botero et al., 2004; Besley and Burgess, 2004; Autor, Kerr and Kugler, 2007), informality, competition (Schwab, 2014), infrastructure (Aterido, Hallward-Driemeir, Pages, 2009), macroeconomic factors (Levine and Renelt, 1992).

Described above factors are highly correlated. Gaviria (2002) notes the high crime rate in countries where corruption exists. The regulations of entry become effective in less corrupt countries whereas red tape contributes to bribery (Shleifer and Vishny, 1997; Djankov et al., 2002). Moreover, the factors of business environment influence on business activity both directly and through other factors. In particular, Claessens (2006) indicates institutional environment, including weak legal system, information infrastructure, the lack of competition in bank system as the causes of financial obstacles for business. In contrast, low financial barriers connect with open and competitive bank systems, characterized private bank ownership, foreign participation, strong legal, information and physical infrastructure (Beck, Demirgüç-Kunt and Soledad Martinez Peria, 2008). Overall, correlations between long-term firm growth and separate macroeconomic indicators are less robust that indicates the complex influence of macroeconomic factors (Levine and Renelt, 1992). Kaufmann, Kraay and Zoido-Lobaton (1999) grouped more than 30 governance indicators in three clusters, rule of law, government effectiveness, and graft, and mentioned that aggregate indicators can provide more precise measures of governance than individual indicators.

Business environment and, as a result, business obstacles vary across regions. In the majority of countries, the financing obstacle is the major obstacle for business development. Overall, the obstacles tend to be lower in developed countries compared to those in developing countries (Beck, Demirguc-Kunt and Maksimovic, 2005). The estimations of the business obstacles by firms vary according to income level in a country (Gelb et al., 2007). Comparing the business obstacles in countries with various income levels, Ayyagari, Demirguc-Kunt and Maksimovic (2008) conclude that finance, crime and policy instability are more common for middle-income countries. Corruption and crime are much greater in Latin America than in O.E.C.D countries (Gaviria, 2002). In African countries the major obstacles for business are corruption and poor infrastructure (Ayyagari, Demirguc-Kunt and Maksimovic, 2008).

Overall, the existing literature show that business environment influences on firm growth. Considering individual firm characteristics (industry, firm size, the age of firm, the proportion of state ownership, the proportion of foreign ownership), business obstacles have a significant impact on business development and economic growth on the whole.

3. METHODOLOGY

This paper is based on the Enterprise Surveys conducted by the World Bank. The World Bank Enterprise Survey (WBES) is a firm-level survey of a representative sample of an economy's private sector. The respondents of WBES are mainly business owners and top managers, company accounts and human resources managers for the sales and labor sections of the survey.

Typically 150, 360 and 1200-1800 interviews take place for small, medium-sized and large economies correspondingly. WBES covers manufacturing and services (construction, retail, restaurants, transport, storage, communications, IT) sectors. Additionally, education and health-related businesses are included in the survey in a few countries. The survey includes formal (registered) firms with 5 and more employees. Companies with 100% government/state ownership do not participate in the survey.

WBES include topics describing firm characteristics, business-government relations, informality, taxation, innovation and technology, access to finance, infrastructure and others. Over 90% of the questionnaire characterizes country's business environment although another part of the questions present business obstacles according to the respondents' opinions.

The sampling methodology for WBES is stratified random sampling where firm size, business sector and geographic region are the strata. The majority of firms are small and medium-sized thus the Enterprise Survey oversample large firms.

Firm size is a composite measure of permanent and temporary workers. The number of temporary workers is adjusted by the average number of months in a year. Small, medium-sized and large companies have 5-19, 20-99, 100 and more workers correspondingly.

WBES covers selected regions within a country provided the largest centers of production and business. Business sector stratification divides manufacturing and services companies. Additionally, there is a more detailed stratification in larger economies.

Considering a large number of the countries in WBES the time period of the data varies from 2005 (Germany, Greece, Korea, Portugal and others) to 2014 (Afghanistan and Myanmar).

13 questions about major business constraints are selected for the current research. They cover various aspects of business environment: regulations and taxes, corruption, crime, informal economy, access to finance, infrastructure, and workforce. The questions are formed as "To what degree is [the name of the obstacle] an obstacle to the current operations of this establish?" There are 5 degrees for the respondents' choice: (0) No obstacle; (1) Minor obstacle; (2) Moderate obstacle; (3) Major obstacle; (4) Very severe obstacle. Percentage of firms identifying a "major" or "very severe" obstacle is calculated as a result. See Table 1 for the selected business obstacles.

Table 1

WBES questions

Business obstacles	Variable
Corruption	X ₁
Functioning of the courts	X ₂
Crime, theft and disorder	X ₃
Access/cost of finance	X ₄
Practices of competitors in the informal sector	X ₅
Electricity	X ₆
Transportation	X ₇
Tax rates	X ₈
Tax administration	X ₉
Business licensing and permits	X ₁₀
Customs and trade regulations	X ₁₁
Labor regulations	X ₁₂
Labor skill level	X ₁₃

Source: *Enterprise Surveys Indicator Descriptions (2014)*. IFC World Bank Group

The final part of the analysis is based on the World Development Indicators (WDI) provided by the World Bank. WDI cover various topics of development in 117 countries. Selected indicators for the analysis are in Table 2.

Table 2

The World Development Indicators

Indicator name	Description	Time period
Adjusted net national income (annual percentage growth)	GNI minus consumption of fixed capital and natural resources depletion	2010-2012
Adjusted net national income per capita (annual percentage growth)		2010-2012
Exports of goods and services (annual percentage growth)	The value of all goods and services provided to the rest of the world including the value of merchandise, freight, insurance, transport, royalties, license fees, and other services and excluding compensation of employees and investment income (formally called factor services) and transfer payments	2010-2013
High-technology exports (percentage of manufactured exports)	Products with high R&D intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery	2010-2012

Source: *The World Bank*

Considering the time period of the last WBES the average values of the indicators described in the table are used in the analysis.

4. REGIONAL DIFFERENCES

Business obstacles vary across countries and regions. According to WBES the most common obstacles for business in the world are corruption (33.7%), electricity (33.5%) and tax rates (30.5%). Almost one third of top managers consider access to finance (28.70%) and competition in the informal sector (27.90%) as business constraints. However, there is a significant diversity of the respondents' answers concerning business obstacles. As an example, top managers estimate corruption as a major obstacle for business from 0.0% in Dominica and Eritrea to 83.7% in Niger.

High-income OECD countries, Eastern Europe & Central Asia, East Asia & Pacific have less business obstacles than other regions. Only 11.9% of managers consider corruption as a major constraint in high-income OECD countries. In Eastern Europe & Central Asia and East Asia & Pacific this value is twice higher.

High-income non-OECD countries have similar values as regions described above. However, there is the highest value for the tax rates – 43.70%. Electricity (31.1%) and labor skill level (31.2%) are also common problems for business in these countries.

South Asia demonstrates higher values for the majority of the variables than Europe, Central Asia and East Asia & Pacific. It has the largest constraints with electricity (43.60%), corruption (35.70%) and access to finance (34.20%).

Latin America & Caribbean is the leader among regions in courts system (29.10%), access to finance (35.90%), labor regulations (17.90%) and labor skill level (35.90%). It also has significant problems with corruption (44.90%).

Middle East & North Africa has the highest values in corruption (50.20%), electricity (45.80%) and business licensing and permits (20.20%). Therefore, access to finance as a major constraint is 38.50% which is more than average across all regions.

Lastly, Sub-Saharan Africa shows higher values for all described variables than the world average. This region is the leader in several constraints: access to finance (41.60%), competition in the informal sector (40.80%), transport (28.60%), tax administration (28.70%), customs and trade regulations (25.40%). Electricity is almost the highest (44.80%), corruption (42.60%) and crime (28.00%) are significantly higher than the world average.

Figure 1 presents three common world obstacles for business across regions.

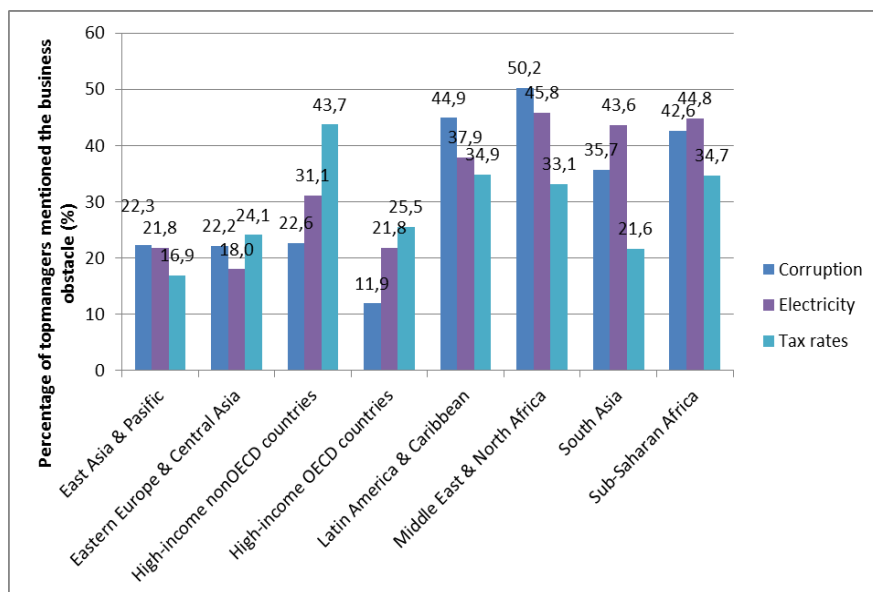


Figure 1 Three major business obstacles across regions

Source: the World Bank

5. CORRELATION OF BUSINESS OBSTACLES

Correlation analysis of the business obstacles shows the significant direct correlations between the business constraints. In particular, there is a strong correlation between corruption (X_1) and courts system (X_2), tax rates (X_8) and tax administration (X_9). See Table 3 for more details.

Table 3

Correlation matrix

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	X ₁₃
X ₁	1,00	0,729	0,676	0,504	0,650	0,544	0,648	0,496	0,639	0,633	0,596	0,466	0,569
X ₂		1,00	0,592	0,282	0,469	0,424	0,473	0,371	0,574	0,669	0,508	0,626	0,570
X ₃			1,00	0,450	0,522	0,528	0,661	0,425	0,505	0,508	0,600	0,391	0,553
X ₄				1,00	0,585	0,668	0,667	0,557	0,552	0,432	0,599	0,205	0,257
X ₅					1,00	0,468	0,583	0,538	0,670	0,526	0,592	0,439	0,510
X ₆						1,00	0,692	0,426	0,473	0,452	0,513	0,176	0,292
X ₇							1,00	0,452	0,533	0,573	0,670	0,346	0,519
X ₈								1,00	0,781	0,405	0,547	0,429	0,461
X ₉									1,00	0,585	0,646	0,537	0,502
X ₁₀										1,00	0,574	0,668	0,523
X ₁₁											1,00	0,402	0,518
X ₁₂												1,00	0,658
X ₁₃													1,00

Source: author's calculations

High values of correlation coefficients demonstrate multicollinearity of the business obstacles. Due to this the next step of the research is factor analysis. This method allows decreasing the number of the business obstacles and eliminating multicollinearity between them. According to the factor analysis 13 business obstacles are grouped in three factors which describe 74.5% of total dispersion. The first factor includes corruption, courts system, crime, and also business licensing and permits, labour regulations and labor skill level. Access to finance, infrastructure (electricity and transport), and trade regulations form the second factor. At last, competition in the informal sector, tax rates and tax administration are the third factor. Table 4 includes matrix of factors.

Table 4

Factor matrix

	Factor 1	Factor 2	Factor 3
Corruption	0,628	0,528	0,236
Courts system	0,805	0,323	0,091
Crime	0,621	0,560	0,096
Access to finance	0,008	0,741	0,505
Competition in the informal sector	0,378	0,465	0,523
Electricity	0,123	0,848	0,190
Transport	0,402	0,772	0,193
Tax rates	0,227	0,228	0,869
Tax administration	0,401	0,350	0,745
Business licensing ad permits	0,682	0,382	0,223
Customs and trade regulations	0,390	0,592	0,410
Labor regulations	0,805	-0,069	0,359
Labor skill level	0,767	0,125	0,269

Source: author's calculations

The results show that the individual indicators of business environment are highly correlated. In particular, licenses and permits are more onerously in corrupt countries. Courts system also does not function effectively that creates additional barriers to business. High tax rates and the poor quality of tax administration' work promote the informal sector of economy.

Further country classification is based on three obtained factors.

6. COUNTRIES CLASSIFICATION

According to Ward's method of clustering 128 countries are classified into 3 clusters. The first cluster consists of 38 countries and includes Afghanistan, Argentina, Brazil, Chile, Egypt, Iraq, Mexico, Peru and others. The main feature of this cluster is high values of the majority of business obstacles. The average proportion of top managers who consider corruption as a major constraint equals 53.3% whereas this value is 20.2% and 37.4% in the second and third clusters correspondingly.

The second cluster includes 64 countries (European and CIS countries, China, South Africa, Vietnam and others) characterized relatively low values of the business constraints. Only 7.2% of top managers estimate courts system as a major constraint vs. 29.2% and 13.1% in the first and the third clusters

correspondingly. Access to finance is the business obstacle for 18.9% of top managers in compare with the world average 30.1%.

Access to finance, competition in the informal sector, infrastructure, and trade regulation are the business constraints for the countries of the third cluster. This cluster includes 26 countries: Algeria, Benin, Central African Republic, Kosovo, Nepal, Senegal and others. According to top managers' responses, the biggest business obstacle is electricity (57.8%). Transport is a major business obstacle for 27.2% of top managers. Competition in the informal sector is a significant business obstacle both for the countries of the first (38.1%) and the third (38.8%) clusters.

The average values of the business obstacles for each cluster are presented on Figure 2.

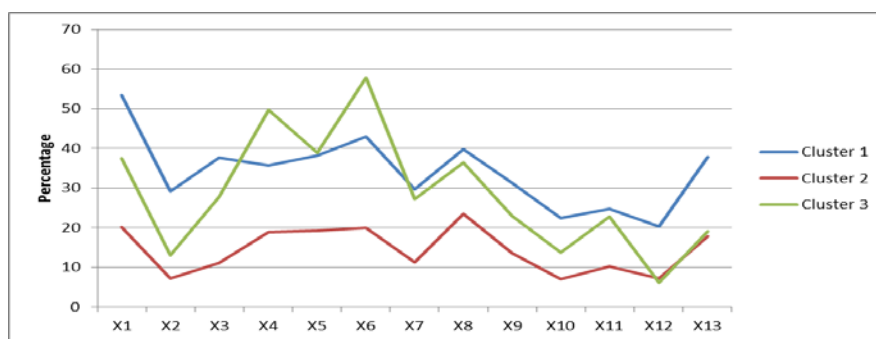


Figure 2 The average values in the clusters (the first classification)

Notes: X₁ – corruption; X₂ – courts system; X₃ – crime; X₄ – access to finance; X₅ – competition in the informal sector; X₆ – electricity; X₇ – transport; X₈ – tax rates; X₉ – tax administration; X₁₀ – business licensing and permits; X₁₁ – customs and trade regulations; X₁₂ – labor regulations; X₁₃ – labor skill level.

Source: author's calculations

The figure above shows that the second cluster has the lowest values of the business obstacles. The first cluster includes countries with the highest values of business obstacles excluding access to finance and electricity which are more common in the countries of the third cluster.

Further countries classification divides the first cluster into two clusters including 30 and 8 countries correspondingly. These clusters have similar values of corruption, crime, electricity, business licensing, and trade regulation as business obstacles. However, tax rates and tax administration are significantly more common in the second cluster (Cluster 1_2). The proportion of top

managers considering tax rates as a major constraint is twice higher in the second cluster than in the first one (Cluster 1_1). Tax administration has the same difference between these clusters. Moreover, access to finance and competition in the informal sector are major obstacles for almost 50% of top managers in the countries of the second cluster whereas only one third of their peers consider the same in the countries of the first cluster. Labor regulation and inadequately educated workforce are more common business constraints in the second cluster. In contrast, there is higher proportion of top managers considering courts system and transport as major constraints in the first cluster than in the second one.

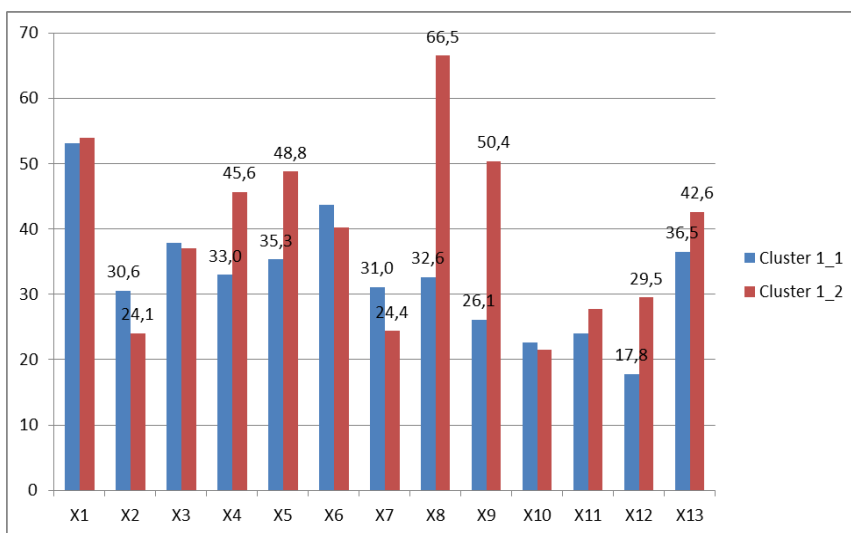


Figure 3 The average values in the clusters (the first classification)

Notes: X₁ – corruption; X₂ - courts system; X₃ – crime; X₄ – access to finance; X₅ – competition in the informal sector; X₆ – electricity; X₇ – transport; X₈ – tax rates; X₉ – tax administration; X₁₀ – business licensing and permits; X₁₁ – customs and trade regulations; X₁₂ – labor regulations; X₁₃ – labor skill level.

Source: author's calculations

The first cluster (Cluster 1_1) includes Afghanistan, Angola, Bolivia, Chile, Kenya, Paraguay, Peru, Venezuela and other countries. The second cluster consists of Antigua and Barbuda, Argentina, Brazil, Burkina Faso, Cameroon, Egypt, Jamaica and Romania.

The next classification allows dividing the first cluster (Cluster 1_1) into two smaller clusters of 18 and 12 countries correspondingly. Comparing these clusters, the first cluster (Cluster 1_1_1) demonstrates higher values of

corruption, access to finance, electricity, tax rates, tax administration, business licensing and trade regulation as major constraints than the second one. The differences between the proportions of top managers answering about the business constraints in the described clusters reach almost 20 percentage points for access to finance, electricity and tax rates. Courts system and crime are slightly more common in the second cluster (Cluster 1_1_2).

Lastly, the second initial cluster including 64 countries and characterizing relatively low values of business obstacles divides into two clusters of 36 and 28 countries. They have similar low values of the obstacles excluding tax rates and tax administration. 32.6% of top managers in the countries of the second cluster (Cluster 2_2) consider tax rates as a major constraint whereas this value equals only 16.5% in the countries of the first cluster (Cluster 2_1). Similarly, the obstacle of tax administration is more common in the second cluster than in the first one (17.7% vs. 10.4%).

Overall, the final classification of the 128 countries in six clusters is presented on Figure 4.

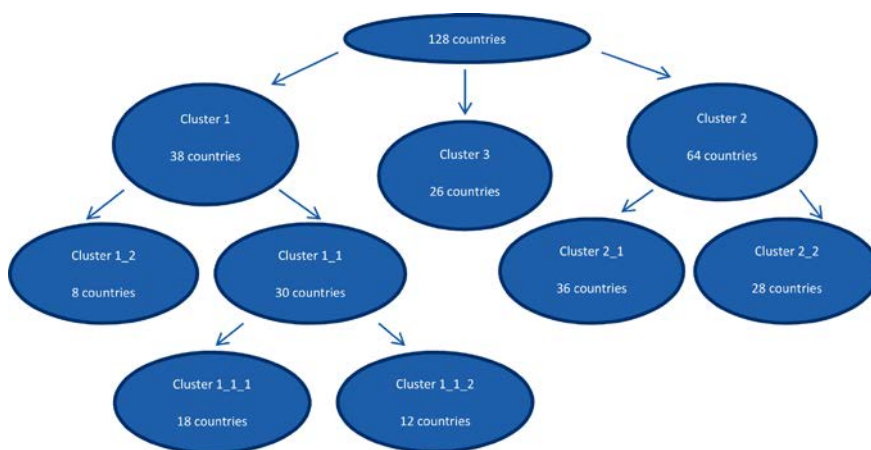


Figure 4 Final countries classification

Source: author's calculations

The list of countries in each cluster is in Table 5.

Table 5

Final countries classification

Cluster 1_1_1	Cluster 1_1_2	Cluster 1_2	Cluster 2_1	Cluster 2_2	Cluster 3
Afghanistan	Bolivia	Antigua and Barbuda	Albania	Armenia	Algeria
Angola	Chile	Argentina	Azerbaijan	Belarus	Benin
Belize	Ecuador	Brazil	Bahamas	Bhutan	Burundi
Chad	El Salvador	Burkina Faso	Bangladesh	Bosnia and Herzegovina	Cabo Verde
Colombia	Guatemala	Cameroon	Barbados	Bulgaria	Central African Republic
Congo Dem. Rep.	Honduras	Egypt	Botswana	Croatia	Dominica
Congo Rep.	Kenya	Jamaica	Cambodia	Ethiopia	Gambia
Costa Rica	Nicaragua	Romania	China	Fiji	Ghana
Cote d'Ivoire	Paraguay		Czech Republic	Georgia	Guinea
Dominican Republic	Peru		Djibouti	Grenada	Guinea-Bissau
Gabon	Suriname		Eritrea	Hungary	Kosovo
Guyana	Venezuela		Estonia	Jordan	Lebanon
Iraq			Indonesia	Latvia	Liberia
Lesotho			Israel	Lithuania	Malawi
Mauritius			Kazakhstan	Mauritania	Mali
Mexico			Kyrgyz Republic	Morocco	Mozambique
Tanzania			Lao PDR	Poland	Nepal
Yemen			Macedonia	Russian Federation	Niger
			Micronesia	Rwanda	Senegal
			Moldova	Serbia	Sierra Leone
			Mongolia	Slovak Republic	St. Kitts and Nevis
			Montenegro	Slovenia	St. Lucia
			Myanmar	Sri Lanka	Timor-Leste
			Namibia	Tajikistan	Togo
			Panama	Tonga	West Bank and Gaza
			Philippines	Turkey	Zimbabwe
			Samoa	Ukraine	
			South Africa	Uruguay	

			St. Vincent and the Grenadines		
			Swaziland		
			Trinidad and Tobago		
			Uganda		
			Uzbekistan		
			Vanuatu		
			Vietnam		
			Zambia		

Comparing the cluster centers with the average values of the selected obstacles across all 128 countries Cluster 2_1 has the lowest values of analyzed business obstacles which do not exceed 0.72 of the world average. Cluster 2_2 shows similar results but tax rates and labor regulations are more common than in the world as a whole.

Cluster 1_2 demonstrates the largest values of the business obstacles which are higher than 1.17 of the world average. Moreover, tax rates and tax administration are twice more common than in the world. The proportion of top managers considering labor regulations as a major constraint is more than three times higher than in the world as a whole.

In Cluster 1_1_1 the average values of the business obstacles vary from 1.31 (tax rates) to 1.94 (courts system) of the world average. Cluster 1_1_2 and Cluster 3 show lower values than the previous one. The main differences between them are the values of courts system and labor regulations as the major constraints. Cluster 3 has the values less than the world average (0.91 and 0.70 correspondingly) whereas these obstacles are twice higher in Cluster 1_1_2 than in the world.

Considering the multiple answers of top managers concerning business obstacles the initial values of the obstacles are recalculated in the proportions giving the sum of 1. These new values mean the contribution of a particular obstacle to all existing business obstacles. This procedure could decrease the values of the obstacles in countries where top managers tend to complain of business constraints. The calculation is the following:

$$X_1 + X_2 + X_3 + X_4 + X_5 + X_6 + X_7 + X_8 + X_9 + X_{10} + X_{11} + X_{12} + X_{13} = \sum X \quad (1)$$

$$\frac{X_1}{\sum X}, \frac{X_2}{\sum X}, \frac{X_3}{\sum X}, \frac{X_4}{\sum X}, \frac{X_5}{\sum X}, \frac{X_6}{\sum X}, \frac{X_7}{\sum X}, \frac{X_8}{\sum X}, \frac{X_9}{\sum X}, \frac{X_{10}}{\sum X}, \frac{X_{11}}{\sum X}, \frac{X_{12}}{\sum X}, \frac{X_{13}}{\sum X} \quad (2)$$

According to the world average values presented by the World Bank, corruption and electricity provide the main contribution to the business constraints (11.3% and 11.2% correspondingly). The proportion of tax rates

equals 10.2%. Access to finance and competition in the informal sector provide 9.6% and 9.3% of the business constraints correspondingly. All contributions are in the graph below.

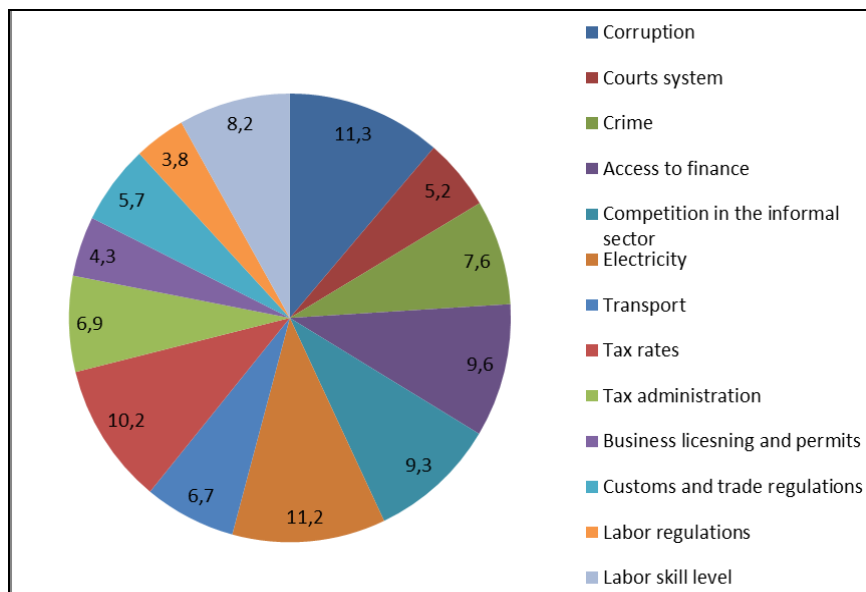


Figure 5 Contributions of the business obstacles (percentage)

Source: author's calculations

7. BUSINESS ENVIRONMENT AND ECONOMIC GROWTH

The analysis of cross tables including selected WDI and the results of the classification allows concluding a significant correlation between business environment and economic growth. Chi-squared criteria shows that annual growth of adjusted net national income, annual growth of exports of goods and services, the proportion of high-technology exports in manufactured exports are higher in countries where the proportions of top managers identifying business constraints are lower. The listed WDI are quantitative variables which are converted in categorical variables (3 categories) for the cross tables' analysis. The number of the available observations for these WDI, the variables' categories and chi-squared values are in the table below.

Table 6

Cross tables' analysis

Indicator name	Number of observations	Variable's categories	Chi-squared and significance
Adjusted net national income (annual percentage growth)	103	Less than 100.0% 100.1% - 107.0% More than 107.1%	12.529 (0.014)
Exports of goods and services (annual percentage growth)	109	Less than 105.0% 105.1% - 110.0% More than 110.1%	8.057 (0.090)
High-technology exports (percentage of manufactured exports)	112	Less than 3.0% 3.1% - 7.0% More than 7.1%	8.337 (0.080)

Source: author's calculations

Figure 6 shows the distribution of the countries according to the growth of exports of goods and services. The majority of the countries of the first cluster with the highest values of the business obstacles (almost 85%) have less than 110% of annual growth of exports. More than 40% of the countries of the second cluster demonstrate the export growth more than 110%. More than half countries of the third cluster have annual export growth equaled 105-110%.

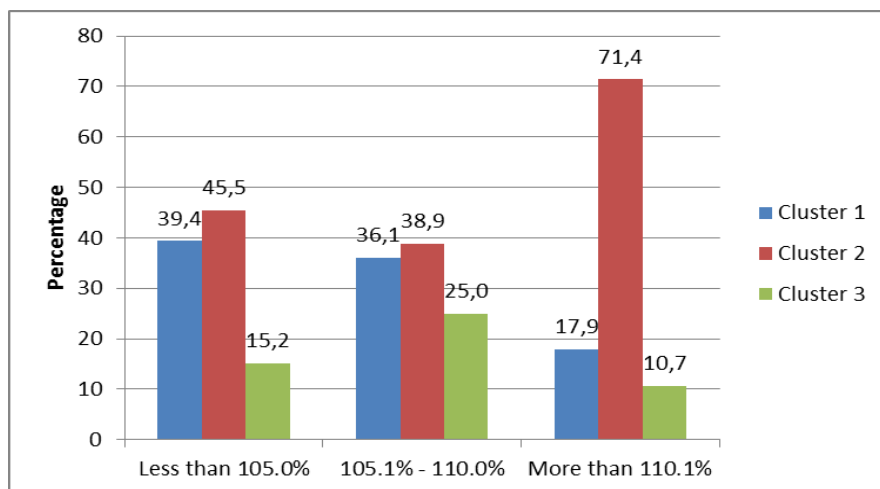


Figure 6 Annual growth of exports of goods and services in cluster gap

Source: author's calculations

8. CONCLUSION

This paper examines the impact of business environment on economic growth and the link between the business obstacles and the indicators of economic development. The results show that countries with low business barriers demonstrate larger annual growth of national income and exports, including high-technology exports.

The research also indicates the regional differences of the business obstacles across countries which allow classifying countries into 3-6 clusters according to the business constraints. The initial classification groups countries in 3 clusters of 38, 64 and 26 countries with high, low and medium business barriers correspondingly. Further classification determines more detailed features of the business environment in the countries' clusters.

To estimate the contribution of particular business obstacle to the whole business environment the initial respondents' answers are recalculated in the proportions giving the sum of 1. Corruption and electricity provide the major constraints for business (more than 11.0% for each other). The contribution of tax rates is slightly lower (10.2%).

The contributions of the business obstacles to business environment could be used for the priority of reforms for business development. Therefore, countries with similar business obstacles could realize successful foreign practices of business development.

This research covers only the subjective estimates of the business obstacles. However, the comparative analysis of business environment across countries requires the analysis of quantitative data from WBES and other data sources including financial and time costs of firms because of business obstacles.

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**THE IMPACT OF THE BOLSA FAMÍLIA PROGRAM
ON GDP OF MUNICIPALITIES OF THE STATE OF
SERGIPE (BRAZIL): 2004-2012**

JEL classification: H 53, I 38

Abstract

The objective of the present paper is to observe whether the Bolsa Familia Program (PBF) – a Brazilian conditioned cash transfer program had influence on GDP growth of the municipalities of the state of Sergipe during the years 2004-2012. Its innovative feature lies in the investigation of the macroeconomic impacts of PBF in the state of Sergipe. In this sense, the work is structured in four sections, besides the introduction: in the first one the origins, the contemporary design and the PBF macroeconomic as well as consumption impacts are presented. The second section briefly describes the focused region: the state of Sergipe, which is the smallest Brazilian state, meanwhile the third section presents the data and methodology employed as well as analyses the results of the experiment which does not prove the PBF influence on GDP of the investigated municipalities. Finally, the main conclusions are summarized.

Key words: State of Sergipe (Brazil), Bolsa Família Cash Transfer Program, local GDP

1. INTRODUCTION

Nowadays the government actions have been developed to eradicate and reduce poverty, whose main face is the insufficient income. According to the website of the Ministry of Social Development and Fight against Hunger (MDS), "insufficiency of income is a relevant indicator of deprivation, but is not the only one. Social, geographical and biological factors multiply or reduce the impact exerted by the yields on each individual. Among the most disadvantaged lacks education, access to land and inputs for production, health, housing, justice, family support, access to credit and opportunities "(www.mds.gov.br, accessed 08.01.2013).

In this sense, the government instituted the Brazil without Misery Plan, which was based on three pillars: income transfer; access to public services and productive inclusion. According to the objective of the plan expressed in the same website, it is possible "to raise the per capita family income, increase access to public services, to actions of citizenship and social welfare, and increase access to employment and income opportunities through actions of productive inclusion in urban and rural areas."Actually, the plan is an expansion of the Bolsa Família Program (PBF) (www.mds.gov.br, accessed 08.01.2013).

According to Fagnani (2012, p. 6), the social policies of the Brazilian government have been recognized in the report of 26 October 2011 of the Organization for Economic Cooperation and Development (OECD), where it was stressed that "never it has seen poverty and inequality fall so fast" as in Brazil. According to the Ministry of Social Development, this was due to the Bolsa Família Program (PBF), which is one of the pillars of Brazil without Misery. The goal of the program is to reduce poverty of the Brazilian regions and, therefore, the release of funds is due to the registration of people of each region. The idea is that this release occurs in the best possible way to meet all the people in poverty and misery conditions. Thus, state and local governments must ensure that this objective is fully met and that the Bolsa Família Program bears good results according to the needs of each region (www.mds.gov.br).

So this paper starts from the assumption that the PBF has not only micro but also macroeconomic impacts and the lower the economic strength of a city, the more important must be such impacts in relative terms. In this sense, the study aims to observe the impact of the direct income PBF transfers on GDP of municipalities in the state of Sergipe between 2004 and 2012.

In order to achieve this end, the work is divided into four sections, besides this introduction: the first one presents the origins, the contemporary design and the macroeconomic impacts of PBF as well as its effects on the consumption of its beneficiaries. The second section briefly describes the focused region, while the third section presents the data and methodology employed, and analyzes the results obtained from panel data analysis, too. Finally, the main conclusions are summarized.

2. ANALYSIS OF THE BOLSA FAMÍLIA PROGRAM

This section presents the origins, the contemporary design, the evolution of the program's coverage in the state of Sergipe in the period 2004-2010, and report the results of research on its macroeconomic impacts and on the consumption of the beneficiaries.

2.1. The Origin of the Bolsa Família

The implementation of liberalizing policies in Latin America since the mid-1980s and the following decade was not able to promote sustained economic growth in the region and brought negative consequences such as a worsening of income distribution and social vulnerability.

Thus, the Gini index, calculated from data of individuals of working age with positive income reported in the National Survey of Sample Households (PNAD), departs from 0,584 in 1981 to 0,636 in 1989 showing an increase in the concentration of income in that decade; oscillates slightly and reaches a new peak of 0,604 in 1993 to maintain some stability by the end of the 1990s.

Figure 1 shows the evolution of Brazilian Gini Index in the 1981-2009 period.

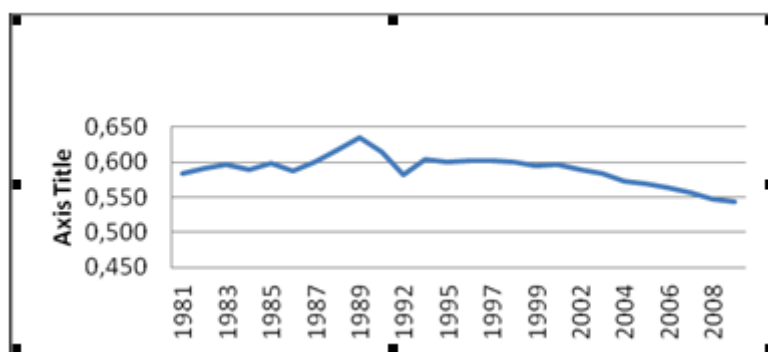


Figure 1: Gini Index– Brazil – 1981-2009

Source: www.ipeadata.gov.br (accessed 07.29.2013)

In the 1990s, a set of income transfer policies – conditional and unconditional – began to be implemented at the national level, among which the following can be mentioned: Bolsa Escola, a conditional cash transfer program to attendance at primary education, the Fome Zero and Bolsa Alimentação Programs, who sought to associate the transfer to food security, the first unconditionally and the second conditional on carrying out health and vaccination

check ups; and Vale Gas, which granted subsidies to poor families to buy cooking gas (Soares et al, 2010).

The Bolsa Família Program (PBF) is the integration of the four programs being set up in October 2003 and converted into Law 10.836 approved in January 2004.

According to Marques (2013), the PBF integrates the second generation of welfare programs introduced in Latin America to offset the negative consequences caused by the macroeconomic policies adopted in the region in the 1980s and 1990s, in particular the increase in the number of individuals in social vulnerability situation.

Such policies have as common features:

- Focus on poor and indigent families, especially with children and adolescents;
- Settlement of conditionalities and
- Goal of human capital accumulation by their beneficiaries in the long run.

As specific features of the Bolsa Família, in relation to other conditional cash transfer programs existing in Latin America, can be highlighted: i. self-declared income by households. This figure, however, is confronted by Ministry of Social Development (MDS) with consumption information contained in the Cadastro Único (Application Form). If consumption is 20% higher than the reported income, this information must be checked; ii. existence of an unconditional benefit (fixed amount) for families in extreme poverty and iii. decentralization in program management, where the inclusion of families in the Application Form is done by municipalities, as well as information updating and verification of compliance with the conditionalities. The direct deposit in the accounts of the beneficiaries and the transfer of funds to municipalities for program management are in charge of the Ministry of Social Development.

To boost the efficiency of local governments in the management of PBF, MDS created a decentralized management index, which measures the performance of municipalities in updating their records and informations related to the conditionalities. A good performance in the index ensures the injection of additional resources to the localities.

Another distinctive character of PBF is its size: according to Russel (2013), it is the largest conditional cash transfer program in the world, with coverage estimated by the author to about 41 million individuals. Nevertheless, for Marques (2013), according to data from June 2011, the PBF catered for 12,4 million families. Considering that each poor family has 4,4 members on average (Marques, 2013, p. 301), this implies the coverage of a contingent of 54,7 million people or 28,6% of the Brazilian population. According Andrade et al (2012)

PBF encompassed about 11 million households representing about 45 million people or 25% of the country's population.

Notwithstanding the differences in estimated coverage by these authors, no one disputes the importance of the program in terms of scope. At the end of the 1st. half of 2013, the MDS website information showed that the PBF attended 11,87 million households.

2.2. The Bolsa Família – Contemporary Design:

The PBF has its focus on families in poverty and extreme poverty situation, defined in terms of family monthly per capita income (ypc). Families with $ypc \leq R\$ 70,00$ are considered in extreme poverty, while families classified as poor are those where $R\$ 70,00 < ypc \leq R\$ 140,00$.

The monthly benefits of the program are threefold:

- basic allowance in the fixed amount of R\$ 70.00 - unconditional - for extremely poor families,
- variable allowance of R\$ 32.00 per 0-15 years old child up to the limit of three and
- variable allowance of R\$ 38.00 per 16-17 years old child up to the limit of two teenagers by family.

The latter are conditioned on minimum school attendance (87% in the first case and 75% in the second), vaccination of children under seven years of age, health monitoring of 14-44 years old women as well as of nursing mothers and their babies, besides conducting pre-natal examinations in pregnant women.

So in case meeting conditionalities, an extremely poor family can receive a maximum benefit of R\$ 242,00 per month, equivalent to 35,7% of the minimum wage in May 2013. If, nevertheless, family stay with ypc below R\$ 70,00 the program transfers extra allowance until this minimum level is reached (strategy recently implemented under the Brazil Without Misery Program).

It is important to remember that the program's coverage was expanded in 2008 with the creation of benefit for teens.

Regarding its focus, according to Soares et al (2010), the PBF is one of the top ten among 122 existing cash transfer programs in the world. For the authors, however, there is a trade-off between efficiency in targeting and expanding coverage. In spite of this, given its magnitude, it seems that the PBF solved this dilemma satisfactorily.

Marques (2013) points to an institutional weakness, in that the PBF is not part of funding for social security so that its resources depend on the existence of budgetary allocation. In addition, "in legal terms, it may suffer disruption or

even be extinguished in the case of a new president have different comprehension with respect to poverty reduction strategies" (p. 309).

The profile of conditionalities is linked to the idea of human capital accumulation by the beneficiaries. You can define human capital as the stock of skills and knowledge capable of providing an individual increasing their productivity and hence an additional stream of income (JORGE, 2011, p. 47). The accumulation of human capital is thus closely linked to the acquisition of education, but according to Becker (1975) one can get human capital through work experience, training, health, nutrition, information and even through migration, as well.

By this way, targeting the provision of improvement in education, health and nutritional status of beneficiaries, the PBF seeks to elevate their stock of human capital as a tool for overcoming poverty (Marques, 2013). However, while the main beneficiaries are children and adolescents, the strategy for overcoming poverty is a long-term one, since that will be achieved by the next generation.

In this sense, Soares et al (2006) suggest that an income positive shock, but transitory, should not be ground for exclusion of the Program due to the high turnover of the Brazilian labor market. The argument can be added to concern over the possibility of disruption in human capital accumulation by the beneficiaries.

According to Oliveira and Sousa (2009), however, the conditioning is not always able to generate the desired results because: i. Potential beneficiaries may not want to participate in the program, even if it is well targeted and ii. monitoring compliance with the conditionalities can be costly or performed ineffectively.

In the case of PBF monitoring of school attendance is made by the schools themselves and sent to the Ministry of Social Development (MDS), while health agents and service centers are responsible for monitoring the health conditions. The monitoring of health conditionalities, which was quite poor at the beginning of the implementation of PBF (ANDRADE ET AL, 2012) improved gradually and had reached a coverage of almost 60% by the end of 2008, according to Soares et al (2010) and 73,2% at the end of the 1st half of 2013, according to the MDS website information.

In May 2011 the PBF was improved and integrated into the Plan Brazil without Misery. By the way, various government coordinated actions with respect to social programs were implemented. Thus, the PBF was included in the PPA 2012/2015 aiming to "improve the socioeconomic conditions of poor and, above all, extremely poor families through direct income transfer and coordination with other policies promoting emancipation".

Let's see how the program's coverage has evolved in the state of Sergipe.

2.3. Evolution of the Bolsa-Família coverage:

Nationally, the number of households covered goes from 6,571,839 in 2004 to 12,778,220 in 2010, or roughly doubles (growth 94.4%), representing the addition of 6.2 million families in the period.

With regard to the state of Sergipe R\$ 272.6 million were paid through PBF in 2010, which puts him to 17th position in terms of transfers among Brazilian states. With just over 230,000 families in the program, the state is ranked 17th. as well as in terms of beneficiaries.

The number of families covered by PBF in the state goes from 113,100 in 2004 to 230,400 in 2010, corresponding to the incorporation of 117,300 families in the period, ie more than double (expansion 103.64%).

Municipalities with more families are Aracaju, Nossa Senhora do Socorro, Lagarto, Itabaiana and São Cristóvão, with respectively 34,747, 19,037, 11,568, 9,780 and 8,074 families. Aracaju, Nossa Senhora do Socorro, Itabaiana and São Cristóvão are also among the municipalities that have incorporated more beneficiaries in the period, along with the city of Estancia.

Due to the small size of most municipalities in Sergipe, nineteen of them had less than 1,000 families covered by the program in 2010.

Regarding the amount of resources paid through PBF, the volume of funds transferred almost quadrupled in the period (expansion 297.5%), from R\$ 68.6 million in 2004 to R\$ 272.6 million in 2010.

During this last year, the localities that received the highest value were Aracaju, Nossa Senhora do Socorro, Lagarto, Itabaiana and São Cristóvão, whose amount received through the PBF is, respectively, R\$ 35.6; R\$ 21.3; R\$ 14.7; R\$ 10.6 and R\$ 9.9 million. While the first four municipalities received more than R\$ 10 million in 2010, fourteen locations in turn, received under R\$ 1 million in that year, according to data from the MDS website.

In this sense, the PBF is a program aimed to combat poverty increasing acquisition of human capital of their beneficiaries, but the interactions of these individuals, combined with the volume of funds transferred by the program end up generating a positive externality to heat the local economy and thus contribute to the growth of municipalities, especially the smallest.

2.4. Effects of the Bolsa Família Program:

Cash transfer programs have macroeconomic effects, as well as microeconomic effects on beneficiaries. The latter are particularly affected by the content of conditionality. In this section the macroeconomic effects of PBF will be focused, as well as the effects on consumption of beneficiary families.

2.4.1. Macroeconomic Effects:

Low-income families often have high marginal propensity to consume. Thus, it is expected that cash transfers received by PBF beneficiaries are spent on consumer goods, particularly non-durable goods such as food or clothing. The expenditure of this resource, by the way promotes the local economy, with significant multiplier effect mainly in low-income municipalities (Marques, 2013).

Both public and private spending have a multiplier effect on additional income. There is a multiplier effect because every increase in income generates an increase in consumption, which in turn increases income again, making the final increase larger than the initial increase caused by greater government spending and creating a cyclical process of increasing income and consumption.

Thus, MDS (2011, p. 144), citing an IPEA study states that "spending on the PBF is characterized as the largest multiplier effect on the income of families (every R\$ 1,00 spent results in R\$ 1,82 impact on income), and one of the largest multiplier effect on GDP (every R\$ 1,00 spent results in R\$ 1,44 impact on GDP)."

Yet about the macroeconomic effects, Campelo and Neri (2013) argue that income transfers that favor the poorest households have the highest multiplier effects and commented that, among these, the PBF has the best multiplier effect: they estimate that every R\$ added spent in PBF stimulate a growth of R\$ 1,78 in GDP. I.e. the Bolsa Familia Program plays an important role in the Brazilian macroeconomic dynamics, especially in the small municipalities whose economy is very dependent on such transfers.

2.4.2. Consumption:

At the microeconomic level, Oliveira e Sousa (2009) estimated the impact of PBF on total consumption of the beneficiaries, as well as its composition. The results are shown in the table below:

Table 1

PBF Effects on the Consumption – Beneficiaries x Control Group II – Brazil (R\$ annual amount)

VARIÁBLE	POOR	EXTREMELY POOR
Total Consumption	-	R\$ 458,65
Food Expenditures	R\$ 278,12	R\$ 388,22
Education Expenditures	R\$ 31,80	-
Children´s Apparel Expenditures	R\$ 16,12	R\$ 31,94

(-) not significant

Source: Oliveira e Sousa (2009).

The table shows the annual difference in expenditures between the PBF beneficiary families and low-income families not covered by income transfer programs. Since the values are positive, it can be seen that poor households spent more on food, education and children's apparel as compared to the control group. Families in extreme poverty beneficiaries of PBF in turn spent more in terms of total consumption, expenditures on food and children's clothing.

To Oliveira e Sousa (2009), this result is interesting, because the allowance received as cash transfer could not result in an immediate increase in consumption, given that beneficiaries could use the money to pay off debts or undertake.

Soares et al (2010) attribute this result to the likely perception on the part of beneficiary families, that the transfer should be used in the interests of their children. The fact that the benefit is delivered to mothers certainly contributes to this perception.

3. THE STATE OF SERGIPE

Sergipe is the smallest state in Brazil and is located in the Northeast Region. Map 1 shows that it has an area of 21,910.3 km², representing only 0.3% of the country and 1.4% of the Northeast areas.

Sergipe is limited to the north with the state of Alagoas through the São Francisco River which separates both states, to the west and south borders on Bahia and to east, with the Atlantic Ocean.

In 2010 the state had 2,068,017 inhabitants and its population density was 94.3 people per square kilometer; in the last decade the population growth was 1.5% per year. The total population of Sergipe corresponds to 1.1% of the Brazilian population (IBGE).



Map 1 – Limits and Extreme Points – Sergipe

Source: SUPES/SEPLAG (2014)

Its gross domestic product was R\$ 23.9 billion; the highest GDP per capita in the Northeast region equivalent to R\$ 11,572.44 (IBGE, 2010). The service sector accounts for 59.7% of GDP, as the industrial and agricultural sectors account respectively for 25.5% and 4.1% of GDP. Taxes on product net of subsidies amounted to 10.7%.

Municipalities in the state are in general small: only two of them, Aracaju – the capital – and Nossa Senhora do Socorro have more than 100,000 inhabitants. The vast majority (68% or 51 cities) have fewer than 20,000 inhabitants.

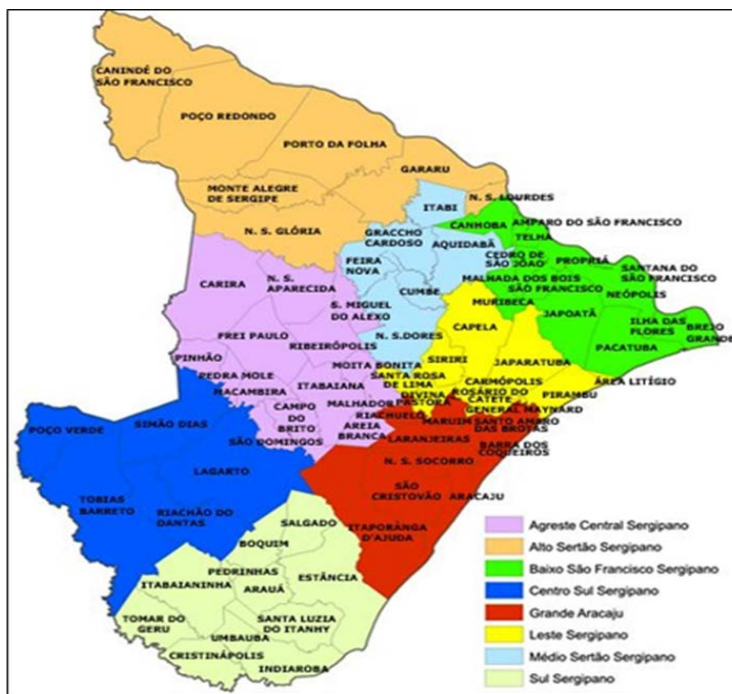
The same occurs with regard to the economic size of these locations: only four counties have a GDP of more than R\$ 1 billion, while the economy of about half, 38 cities or 50,7%, reached less than R\$ 100 million in 2010. In localities of fragile economies, such as these reported, it is likely that cash transfer programs have a more significant economic impact, which makes the state of Sergipe appropriate to carry out this study, despite of its small size.

The size and reduced economy ends up to be reflected in the level of development of these municipalities: with regard to HDI-M, most cities of Sergipe (43 or 57.3%) is classified in the low human development category and only the capital, Aracaju, reaches the high human development category.

In 2007, the state government created eight planning areas in order to regionalize investment decisions, increase participation of society in the decision-making process and thus attack three concentrations existing in the state: the concentration of income and production structure in its coastal strip which at that time accounted for 70% of value added, and industrial concentration around the Petrobras and CHESF which accounted for nearly 40% of Sergipe industrial GDP. (Teixeira et al, 2010).

Map 2 shows the distribution of Sergipe planning territories: Baixo São Francisco (14 municipalities); Alto Sertão (07 municipalities); Agreste (15 municipalities); Centro Sul (05 municipalities); Grande Aracaju (09 municipalities); Leste Sergipano (09 municipalities); Médio Sertão (06 municipalities) and Sul Sergipano (11 municipalities).

Table 2 confronts the amounts transferred by the PBF with municipal GDP's and calculates their impact on the local economy, considering a multiplier effect of 1.8:



Map 2 –Planning Areas – Sergipe

Source: SUPES/SEPLAG (2014)

Table 2

Bolsa Família Resources and Impacts on GDP –With and without Multiplier Effect – 2012

MUNICIPALITY	PBF Value Transferred	Value considering Multiplier Effect	GDP	% of GDP	% of GDP considering Multiplier Effect
Amparo de São Francisco	561042	1077201	18469054	3,04	5,83
Aquidabã	4298766	8253631	142671105	3,01	5,79
Aracaju	51262718	98424419	9813851609	0,52	1,00
Araúá	2960500	5684160	70589138	4,19	8,05
Areia Branca	3804280	7304218	130047550	2,93	5,62
Barra dos Coqueiros	4448168	8540483	333515485	1,33	2,56
Boquim	6253668	12007043	294652052	2,12	4,07
Brejo Grande	2023086	3884325	57110660	3,54	6,80
Campo do Brito	3723346	7148824	116939272	3,18	6,11
Canhoba	1183866	2273023	30208789	3,92	7,52
Canindé de São Francisco	7030250	13498080	1399830529	0,50	0,96
Capela	6932392	13310193	267146001	2,59	4,98
Carira	5161030	9909178	147503367	3,50	6,72
Carmópolis	2811364	5397819	620406715	0,45	0,87
Cedro de São João	1334006	2561292	35242691	3,79	7,27
Cristinápolis	4449804	8543624	109120486	4,08	7,83
Cumbe	919222	1764906	29635909	3,10	5,96
Divina Pastora	1064288	2043433	211624004	0,50	0,97
Estancia	11753018	22565795	1303712678	0,90	1,73
Feira Nova	1576476	3026834	42331158	3,72	7,15
Frei Paulo	2733050	5247456	194721792	1,40	2,69
Gararu	3539840	6796493	80742712	4,38	8,42
General Maynard	538698	1034300	19125183	2,82	5,41
Graccho Cardoso	1778172	3414090	41017621	4,34	8,32
Ilha das Flores	2401196	4610296	47602808	5,04	9,68
Indiaroba	4405614	8458779	99512977	4,43	8,50
Itabaiana	15176728	29139318	1005866162	1,51	2,90
Itabaianinha	10610630	20372410	250449941	4,24	8,13
Itabi	1220116	2342623	38640205	3,16	6,06
Itaporanga d' Ajuda	7463138	14329225	600482748	1,24	2,39
Japarutuba	3715506	7133772	619527282	0,60	1,15
Japoatã	3653742	7015185	101034831	3,62	6,94
Lagarto	20004342	38408337	865259485	2,31	4,44
Laranjeiras	5872642	11275473	1010389032	0,58	1,12
Macambira	1565544	3005844	43968696	3,56	6,84
Malhada dos Bois	881498	1692476	30111370	2,93	5,62
Malhador	2727370	5236550	76136590	3,58	6,88

Marumim	3541006	6798732	204414352	1,73	3,33
Moita Bonita	1982790	3806957	71659907	2,77	5,31
Monte Alegre de Sergipe	3631166	6971839	92774961	3,91	7,51
Muribeca	1658322	3183978	58514814	2,83	5,44
Neopolis	5022692	9643569	165026628	3,04	5,84
Nossa Senhora Aparecida	2334842	4482897	80459176	2,90	5,57
Nossa Senhora da Gloria	7911258	15189615	346380842	2,28	4,39
Nossa Senhora das Dores	5727240	10996301	217584931	2,63	5,05
Nossa Senhora de Lourdes	1642434	3153473	42042523	3,91	7,50
Nossa Senhora do Socorro	29316702	56288068	2049719308	1,43	2,75
Pacatuba	4191824	8048302	111861631	3,75	7,19
Pedra Mole	724434	1390913	21850498	3,32	6,37
Pedrinhas	2311250	4437600	50293335	4,60	8,82
Pinhão	1386874	2662798	41139348	3,37	6,47
Pirambu	1964252	3771364	69584609	2,82	5,42
Poço Redondo	9009224	17297710	187705974	4,80	9,22
Poço Verde	6007542	11534481	133678448	4,49	8,63
Porto da Folha	7619018	14628515	197471551	3,86	7,41
Propria	5909202	11345668	313990016	1,88	3,61
Riachão do Dantas	5488382	10537693	113901537	4,82	9,25
Riachuelo	2246118	4312547	148608454	1,51	2,90
Ribeirópolis	3571660	6857587	152027072	2,35	4,51
Rosário do Catete	2087730	4008442	408965323	0,51	0,98
Salgado	4194778	8053974	118824982	3,53	6,78
Santa Luzia do Itanh	4293272	8243082	101227623	4,24	8,14
Santa Rosa de Lima	1046768	2009795	26201708	4,00	7,67
Santana do São Francisco	2031343	3900179	41939351	4,84	9,30
Santo Amaro das Brotas	2641976	5072594	107527486	2,46	4,72
São Cristovão	14469674	27781774	590068921	2,45	4,71
São Domingos	2548782	4893661	66069671	3,86	7,41
São Francisco	807888	1551145	23585720	3,43	6,58
São Miguel do Aleixo	1083802	2080900	27030731	4,01	7,70
Simão Dias	9741316	18703327	374946437	2,60	4,99
Siriri	2102580	4036954	162853112	1,29	2,48
Telha	792656	1521900	21369704	3,71	7,12
Tobias Barreto	11010288	21139753	337076507	3,27	6,27
Tomar do Geru	3836358	7365807	77866561	4,93	9,46
Umbaúba	5249006	10078092	167750043	3,13	6,01

Source: www.mds.gov.br e www.seplag.se.gov.br, (accessed 06.10.2013) :

The fourth column of the table shows the direct impact of the value transferred by PBF as a proportion of municipal GDP in 2012. Note that the PBF

transfers account for 0.45% to 5.04% of the local product; with the lowest impact just occurring in Carmópolis, city of great economic dynamism, and the greatest impact occurring in the municipality of Ilha das Flores.

Based on the multiplier effect of the program estimates referred to in section 2.4.1, – around 1.8 – it tried out to estimate the direct and indirect impact of PBF in each municipality. This impact is expressed in absolute value in column 2, and as a percentage of GDP in the last column of the table. When considering the multiplier effect, the PBF impact shall range from 0.87% to 9.68% of GDP.

So, it seems that the resources transferred under PBF have a non-negligible impact on the state economy. It is now necessary to verify the validity of this hypothesis through an estimate of greater consistency, which is done in the next section.

4. MODEL DESCRIPTION AND ANALYSIS OF RESULTS

This section briefly describes the data panel analysis technique as well as the model estimated and its results. Finally, it presents the analysis of the latter.

4.1. Description of the Technique

In this work panel data analysis technique will be used, which is the combination of cross-sectional analysis with the time series. Among the advantages of this technique we can enumerate the increased number of degrees of freedom from $(N - k)$ to $(NT - k)$, increased robustness of the tests t and F , as well as more efficient estimators.

Despite its neighborhood and sharing many common features as small size and little substantial economies, each municipality of the analyzed region has its specificities and some of them, such as social capital, for example, may have some influence on GDP, or even on the efficient operation of the PBF, without being directly observed. Thus, the fixed effects technique assumes that these unobserved variables are correlated with the explanatory variables in the model.

The technique of random effects, on the other hand, requires strict exogeneity, that is, the absence of correlation between the explanatory variables and the idiosyncratic error as well as absence of correlation also with the unobserved variables.

If the results of the fixed effects estimates and random-effects differ, it is necessary to choose which technique is most appropriate. An instrument available for such judgment is Hausman specification test which consists in comparing the estimates of fixed effect and random effect, testing the hypothesis of independence between the unobserved variable, which is assumed to be variable

in time, and explanatory variables. In the case of a significant difference between the estimates, it rejects the hypothesis of independence, which is a technical assumption of random effects (Wooldridge, 2002, p. 288-291). In this case, the fixed effects technique is considered more suitable.

In the case of small samples using fixed effects estimation, errors tend to be negatively correlated¹, which makes indispensable a correction provided by the robust variance matrix.

4.2. Description of the Model

The basic model was built in order to determine which variables have the greatest impact on GDP growth of cities in the state of Sergipe. Given the importance of income transfers to the small towns, they were included as independent variables: values passed on the Bolsa Família Program - focus of this analysis - value of social security benefits (pensions and retirements) and transfers from the Fundo de Participação dos Municípios (FPM). Considering that all cities of Sergipe receive royalties, this information was also included among the explanatory variables. Finally, to capture the dynamics of local economies, the value added of the three economic sectors: agriculture, industry and services was included. In addition, the amount of tax on transactions regarding the circulation of goods and services (ICMS) transferred to each municipality has been included to reflect the strength of the local economy. Although it is constituted as a transfer, it is directly related to the municipal economic dynamism, given the principle of derivation². Table 3 presents the set of model variables.

¹ The proof will not be presented here, but a very didactic one can be found in Wooldridge (2002, p. 270).

² The principle of derivation consists of preserving, in the resources distribution, the original location of the taxable event. In Sergipe, 75% of the ICMS amount transferred to municipalities should obey the principle of derivation (SILVA, 2013).

Table 3

Model Variables – Descriptive – 2012 (R\$ thousand)

MUNICIPALITIES	GDP	VALUE ADDED			ICMS Transfers	Royalties	Social Security	PBF	FPM
		Agriculture	Industry	Services					
		Amparo de São Francisco	18469,05	1230,33					
Aquidabã	142671,11	19348,61	11948,87	104183,22	2726,67	3370,94	25998,52	4298,77	11650,38
Aracaju	9813851,61	5976,29	1482584,42	6869736,92	159786,52	35079,40	706467,30	51262,72	196146,34
Araúá	70589,14	10047,03	5929,92	51427,01	2171,47	1368,75	7751,17	2960,50	7511,55
Areia Branca	130047,55	23533,12	12417,57	88082,13	2552,51	309,62	9560,85	3804,28	11650,38
Barra dos Coqueiros	333515,49	3764,82	139646,27	166363,46	5048,66	3611,32	5241,21	4448,17	13592,12
Boquim	294652,05	6836,71	83356,05	168465,26	3190,54	285,52	26511,53	6253,67	13592,12
Brejo Grande	57110,66	7349,09	13408,01	34941,04	2088,10	284,70	2417,63	2023,09	5825,19
Campo do Brito	116939,27	7578,06	16406,24	87233,20	2488,40	316,84	19741,66	3723,35	9708,65
Canhoba	30208,79	5400,75	2843,52	20938,89	1988,16	85,71	3748,71	1183,87	5825,19
Canindé de São Francisco	1399830,53	24720,01	1181625,19	179281,47	64904,05	12042,45	22734,30	7030,25	13592,12
Capela	267146	38836,31	44915,40	168571,82	16963,20	4015,82	21285,35	6932,39	15487,83
Carira	147503,37	16589,29	15515,45	106780,28	3117,55	253,78	22440,03	5161,03	11650,38
Carmópolis	620406,72	3155,45	467019,88	118645,57	8488,10	43997,74	5815,51	2811,36	9708,65
Cedro de São João	35242,69	3083,74	3052,75	27792,75	2054,60	149,06	1460,86	1334,01	5825,19
Cristinápolis	109120,49	8747,16	11904,65	82916,69	3742,87	218,88	8204,99	4449,80	9708,65
Cumbe	29635,91	6169,11	2216,23	20310,11	1974,28	150,04	958,07	919,22	5825,19
Divina Pastora	211624	2604,01	178958,08	27313,88	2512,58	6477,59	851,60	1064,29	5825,19
Estancia	1303712,68	29640,86	484132,60	528248,25	26679,50	4557,11	72430,09	11753,02	23300,77
Feira Nova	42331,16	9639,94	3025,96	28165,79	2007,41	168,57	837,26	1576,48	5825,19
Frei Paulo	194721,79	17283,24	53842,31	96515,27	5734,12	233,16	15747,69	2733,05	9708,65
Gararu	80742,71	17701,61	6301,65	54207,12	2049,68	180,80	9194,90	3539,84	7766,92
General Maynard	19125,18	596,59	3063,09	14943,47	1970,98	296,83	193,07	538,70	5825,20
Graccho Cardoso	41017,62	8811,96	3673,13	27165,08	1990,31	149,06	1659,01	1778,17	5825,26
Ilha das Flores	47602,81	4893,37	4357,25	36938,18	2135,75	106,76	3830,60	2401,20	4893,76
Indiaroba	99512,98	15194,03	8500,41	71305,30	2183,11	249,48	2912,18	4405,61	9708,65
Itabaiana	1005866,16	36463,38	96430,32	742349,29	11528,17	642,21	87358,11	15176,73	27184,23
Itabaianinha	250449,94	14407,46	30958,93	189988,13	3324,68	341,85	32715,83	10610,63	17475,58
Itabi	38640,21	6654,42	4088,30	26224,32	2066,09	223,21	5797,37	1220,12	5825,19
Itaporanga d' Ajuda	600482,75	25165,96	279772,16	211227,36	9192,37	5452,20	16220,46	7463,14	15533,85
Japaratuba	619527,28	29323,22	470725,46	108197,99	7349,57	15023,65	14679,94	3715,51	11650,38
Japoatã	101034,83	22598,10	9643,60	63916,38	3166,83	221,73	9872,55	3653,74	7766,92
Lagarto	865259,49	75915,91	132491,10	564311,29	8880,80	575,71	98368,70	20004,34	29125,96

Laranjeiras	1010389,03	20526,21	356111,18	432332,01	34373,41	288,65	10800,85	5872,64	13592,12
Macambira	43968,7	4389,76	3767,67	33936,47	2063,67	165,77	7077,24	1565,54	5825,19
Malhada dos Bois	30111,37	1992,04	2820,14	23361,56	3221,36	158,49	564,85	881,50	5825,19
Malhador	76136,59	8303,18	6268,76	58225,39	2127,47	208,32	10358,88	2727,37	7766,92
Maruim	204414,35	9206,07	69373,11	105345,00	4269,24	1795,58	12115,18	3541,01	9708,65
Moita Bonita	71659,91	9229,03	5764,08	53370,24	2183,83	266,70	14889,10	1982,79	7766,92
Monte Alegre de Sergipe	92774,96	13314,46	7220,54	68158,56	2168,75	234,18	10929,67	3631,17	9708,58
Muribeca	58514,81	5050,71	11587,65	38240,63	2078,56	211,30	1143,95	1658,32	5825,20
Neopolis	165026,63	25699,78	23988,11	101630,91	3732,10	281,47	20832,66	5022,69	11650,56
Nossa Senhora Aparecida	80459,18	9430,88	15655,88	46951,69	2178,50	149,06	9661,85	2334,84	5825,19
Nossa Senhora da Glória	346380,84	35796,19	50491,00	222824,73	5132,93	359,15	36433,36	7911,26	15533,85
Nossa Senhora das Dores	217584,93	24063,32	32003,31	143613,19	3210,95	285,52	26935,96	5727,24	13592,12
Nossa Senhora de Lourdes	42042,52	6206,53	3533,05	30635,37	2217,01	162,60	6948,33	1642,43	5650,03
Nossa Senhora do Socorro	2049719,31	5055,71	299346,09	1342467,46	24976,16	2115,50	25456,08	29316,70	63576,01
Pacatuba	111861,63	19007,02	21092,26	66986,79	5296,21	537,70	10953,92	4191,82	7767,57
Pedra Mole	21850,5	2379,44	1745,22	17135,45	1947,19	162,37	2367,49	724,43	5825,19
Pedrinhas	50293,34	2190,64	4681,09	41616,77	2125,41	228,21	1218,25	2311,25	6769,81
Pinhão	41139,35	4276,30	3549,92	31429,81	2026,16	209,43	1136,81	1386,87	5825,19
Pirambu	69584,61	4937,92	17240,59	44987,55	2588,48	10539,31	2586,42	1964,25	5825,19
Poço Redondo	187705,97	28816,95	15799,17	134933,35	2330,21	317,26	18513,61	9009,22	15533,85
Poço Verde	133678,45	7906,73	11968,79	106864,31	2544,46	247,28	27100,36	6007,54	11650,38
Porto da Folha	197471,55	27796,27	20113,40	140642,15	2533,58	354,06	25029,60	7619,02	13592,12
Propria	313990,02	9777,37	54292,19	211298,97	5876,54	288,69	48381,69	5909,20	13592,12
Riachão do Dantas	113901,54	16585,55	9172,56	84989,43	2076,19	244,55	18449,67	5488,38	11650,38
Riachuelo	148608,45	7371,05	75836,13	53393,03	4321,38	2138,79	3652,54	2246,12	5825,19
Ribeirópolis	152027,07	9799,70	27557,30	100273,07	3608,18	241,03	22663,18	3571,66	11650,38
Rosário do Catete	408965,32	10142,27	246908,26	98163,84	16280,17	8821,06	3843,56	2087,73	5825,19
Salgado	118824,98	10387,37	12640,94	90315,93	2400,54	250,62	17147,07	4194,78	11650,38
Santa Luzia do Itanhhy	101227,62	20566,88	7343,96	69497,40	2057,60	150,55	1499,30	4293,27	8022,30
Santa Rosa de Lima	26201,71	4105,95	2130,72	19212,05	1986,24	227,26	630,07	1046,77	5825,19
Santana do São Francisco	41939,35	4615,28	3994,90	32192,02	ND	ND	3272,02	2031,34	ND
Santo Amaro das Brotas	107527,49	9066,40	39899,73	54946,39	2440,01	2089,20	8733,12	2641,98	7766,92
São Cristovão	590068,92	26006,99	118211,42	400880,84	7474,95	1815,91	24336,14	14469,67	25242,50
São Domingos	66069,67	4517,03	9245,50	48444,25	2448,42	294,71	7414,13	2548,78	7766,92
São Francisco	23585,72	2525,37	1930,50	18274,45	1954,49	123,35	548,61	807,89	5825,19

São Miguel do Aleixo	27030,73	3877,17	2129,61	20037,06	1950,13	144,06	431,55	1083,80	5825,19
Simão Dias	374946,44	66032,72	49477,23	223864,20	5360,54	378,13	45012,78	9741,32	17475,58
Siriri	162853,11	10212,96	105532,02	42403,57	3217,80	3900,59	4381,74	2102,58	5825,19
Telha	21369,7	2502,21	2109,84	16131,38	1985,34	144,15	541,51	792,66	5825,19
Tobias Barreto	337076,51	17034,71	40857,76	251689,94	4297,87	387,08	53006,31	11010,29	19417,31
Tomar do Geru	77866,56	7136,25	7124,65	60655,09	2147,96	184,53	11681,57	3836,36	7766,92
Umbaúba	167750,04	6523,81	16707,06	130445,79	3023,30	253,78	15322,87	5249,01	11650,38
MEAN	370975,89	13781,63	94456,19	218850,84	7680,18	2459,45	24497,60	5239,67	13451,71
Standard Error	1160862,7	13411,93	235373,46	802005,46	20095,16	6877,06	82000,73	7117,01	23016,94

It was attempted to avoid the analysis of a single year to minimize problems arising from exceptional situations that could bias the results. So it was opted for the analysis of the last eight years available. As the information to GDP has a time lag of two years ($t - 2$), the analysis period comprehends the years 2004-2012.

Information about the GDP and the value added of agriculture, industry and services are provided by SEPLAG/SE under the Regional Accounts project which calculates the GDP's state together with the IBGE. Data are expressed in thousand R\$.

The FPM transfers and the amount received as royalties was obtained from the National Treasury website and are expressed in R\$.

The transfers of ICMS, in turn, were provided by the state Department of Finance (SEFAZ/SE), while the value of social security benefits was granted by the Ministry of Social Security. Both information is expressed in R\$.

The amount of allowances paid through PBF, in turn, was obtained from the state unit of MDS. All data are expressed in current values.

For estimation purposes, the original information was standardized³ in order to minimize the possibility of heteroskedasticity.

Table 3 presents the information concerning the dependent and independent variables, as well as their means and standard deviations. For reasons of size only the data for the year 2012 were presented.

The assumptions of multiple regression model were tested in software SPSS 13.0, but not included in the work for size reasons, which are the following: Strong occurrence of multicollinearity, which led to the withdrawal of three model variables - value added of services sector, transfers from Fundo de Participação dos Municípios (FPM) and the state tax on Goods and Services (ICMS). The model with the remaining variables showed low VIF's (between 1.4

³ The standardization was made in the conventional way by subtracting the mean and dividing each variable by standard error of the sample.

and 5.1), absence of residuals autocorrelation - according to the Durbin-Watson test - and the presence of heteroskedasticity as the results of White' Test.

Thus, panel data analysis was performed using software STATA 12.0 as well as the robust variance matrix due to the heteroskedasticity detected by the White test.

4.3. Analysis of Results

Table 4 shows the results of the estimates of fixed and random effects, performed in Stata 12.0, using the robust variance matrix.

Table 4

Results of Estimations

	FE	RE
r ² within	0,5230	0,5061
between	0,9635	0,9808
overall	0,9618	0,9794
Constant	0,00005	-0,00001
	[0,569]	[0,999]
VAAgric.	0,15773**	0,00535
	[0,021]	[0,454]
VAInd	0,28564*	0,29471*
	[0,000]	[0,000]
Royalties	-0,01112	-0,01014
	[0,328]	[0,262]
Social Security	0,29859**	0,66945*
	[0,024]	[0,000]
PBF	0,08645	0,09297
	[0,266]	[0,228]
F	33,53	
	[0,000]	
χ^2		3.841,48
		[0,000]

*significant 1% error

** significant 5% error

p-value in brackets

Observing the table, it can be seen that the fixed effects model explained 52% of variance of GDP in the period. Note that only the coefficients of value

added of agriculture, industry and transfers of social security benefits are statistically significant and have the expected signs. Bolsa Família allowances, however, do not seem to contribute to GDP growth of the state's municipalities.

On the other hand the random effects model has a coefficient of determination (r^2 overall) of about 98%, but only the value added of industry and social security disbursements are statistically significant and have the expected signs. Again, the payments of Bolsa Família do not seem to contribute to GDP growth of the state's municipalities.

Despite the PBF disbursements have been shown to be not statistically significant in the two estimates, the results differ and thus is necessary to perform the Hausman test to identify the most appropriate technique. As we used the robust variance matrix, however, the Hausman test can not be applied. In this case, it applies the Sargan-Hansen test, whose result of 59.218 (p -value = 0.000) indicates the fixed effects model as the most appropriate⁴.

Thus, the value added of agriculture and industry, as well as of social security transfers, explain about 52% of GDP growth in the municipalities, especially the last two, whose β appears to be more significant. Bolsa Família allowances, however, seem not statistically affect the municipal GDP, in spite of representing a significant percentage of the economy of smaller localities.

5. MAIN CONCLUSIONS

This article started from the assumption that the PBF has not only micro but also macroeconomic impacts and the lower the economic strength of a city, the most important must be such impacts in relative terms. In this sense, the study aimed to observe the impact of direct income PBF transfers on GDP of municipalities in the state of Sergipe between 2004 and 2012.

The state of Sergipe was chosen because it is made up of small towns and reduced economic dimension, where the transfer of funds of the Union and states often have significant weight in the composition of their tax revenues.

Then a simple model was built seeking to observe the effect of four transfer revenues on the municipal GDP: FPM, royalties, social security disbursements and PBF allowances. To capture the dynamics of the local economy the value added of the three sectors of the economy and the value of the ICMS transfers were included.

The model explained 52% of variance of GDP in the period. It was verified that the coefficients of the value added of agriculture, industry and social

⁴ When the Hausman test generates a negative signal or a non-positive definite matrix, Prof. Mark Schaffer of Heriott-Watt University (Edinburgh) suggests replacing it by the Sargan-Hansen test, which produces a necessarily positive result whose interpretation is similar to the Hausman test. (www.statalist.com/it/hausmannegative/).

security benefits are statistically significant, ie, disbursements of the Bolsa Família program does not appear to have statistically contributed to GDP growth of municipalities in Sergipe.

Obviously, it is a simple model that can be enhanced with the inclusion of other relevant variables such as the Municipal Human Development Index (HDI) or some institutional information from municipalities. Thus, the improvement and extension of this work could indicate fruitful paths for future research.

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**HIERARCHICAL CAPITALISM IN LATIN AMERICA:
COMPARATIVE ANALYSIS WITH OTHER
ECONOMIES**

JEL classification: O43, O54

Abstract

The Latin American capitalism is hierarchical (Schneider, 2009), due to the existence of monopolies and oligopolies and with high influence of multinationals and large national companies. That situation has an impact on several variables, both economic and social. The aim of this paper is to compare the three largest economies in Latin America (Brazil, Mexico and Argentina) with other economies that have another type of capitalism, in that way we can extract some effects of the hierarchical capitalism in Latin America. The comparison is based on the following variables: economic growth, innovation and democracy.

Key words: Latina America, hierarchical capitalism, comparative analysis

1. INTRODUCTION

The Latin American capitalism is hierarchical (Schneider, 2009), due to the existence of monopolies and oligopolies and with high influence of multinationals and large national companies. That situation has an impact on several variables, both economic and social. The aim of this paper is to compare the three largest economies in Latin America (Brazil, Mexico and Argentina) with other economies that have another type of capitalism, in that way we can extract some effects of the hierarchical capitalism. The comparison is based on the following variables: economic growth, innovation and democracy.

We compare countries with the largest economies in Latin America (Brazil, Mexico and Argentina) with economies that began their transitions to democracy in the eighties (South Korea, Spain and Croatia). The idea is to compare countries that in the eighties had a level of development similar to the selected Latin American countries, but with a different institutional path. We selected countries that underwent a transition from dictatorship to democracy (Korea and Spain) and one that reached its independence and was recently involved in a war (Croatia), to contrast with Latin American countries that had a transition to democracy in recent decades. South Korea was chosen as one of the countries with higher economic growth, while Spain is important because it managed the transition from a dictatorship to a democracy with an economy that has been transformed and inserted in a regional integration process (i.e. the European Union). Croatia was chosen because its economy was affected by a war. South Korea has a Stated-led plutocratic capitalism characterized by the establishment of large family-led conglomerates (i.e. chaebol) with their own banks, Spain has an economy based on services and tourism, and Croatia has a clientelism capitalist economy. In none of these three countries there is a hierarchical capitalism.

The hypothesis of the paper is that the **hierarchical capitalism** has negative effects on economic growth, innovation and the democratic level, due to the fact that monopolies and oligopolies have no interest in innovation and they establish power relations with the government.

After the introduction, in the second section we introduce the varieties of capitalism starting from Hall and Soskice (2001), and then we present the methodology. In the fourth section we perform the comparison of selected countries and the last section are the conclusions.

2. VARIETIES OF CAPITALISM

Globally, there is more than one type of capitalism, while it is true that before the fall of the Berlin Wall, countries were divided into capitalist and socialist, now the economies are classified as developed, emerging and developing countries. Hall and Soskice (2001) perform an analysis of how

capitalist economies can be classified focusing on the relationship of the firm with various key players. The authors use five spheres to explain how coordination problems are resolved.

- Industrial relations: how firms coordinate the negotiation of wages and working conditions with trade unions.
- Training and education: companies need workers who are trained, but how much is optimal to invest?
- Corporate governance: refers to the way the company has access to financing and how investors ensure returns on investment.
- Intra-company relationship: the relationship that exists with other companies, suppliers, customers, access to inputs and technology.
- Coordination with employees: refers to how the company ensures that employees have the necessary skills and how they cooperate with business objectives.

Hall and Soskice analyse how economies solve the problems of coordination of each of the five spheres and how complementarity is given. These authors found that economies can be classified into: Liberal Market Economies (LME) and Coordinated Market Economies (CME).

Hall & Soskice's analysis is for developed economies, because it does not include emerging economies and the developing. At the LME, firms coordinate their activities via hierarchies and competitive market arrangements, in addition the relations in the market are competitive and contracts are formal. In the case of CME, firms rely on relationships that are non-market, that is, agreements with the different actors are informal and incomplete contracts, monitoring is based on the exchange of information.

In the LME hierarchies are the main institutions for the coordination of companies with different players, while the CME strategic coordination is based on the strategic interaction. The United States would be the prototype of the LME country, and Germany would be the extreme case of the CME.

Amable (2003) extends the analysis of Hall and Soskice and includes the following types of capitalism: Asian, Continental, LME, Mediterranean and Social Democrat. The author uses a group of variables: the flexibility of the labour market, financial markets and welfare systems, among others. Cvijanovic and Redzepagic (2011) argue that there may be another type of capitalism, which they regard as clientelism (Croatia) and is characterized by the connections established between government and economic actors.

Since Hall and Soskice (2001) and Amable (2003), there is a classification of types of capitalism for emerging and developing countries. In the case of Latin America, Schneider (2009) and Schneider and Soskice (2009) point out that the countries in the region share the feature that are **Hierarchical** Market

Economies (HME), because the large national firms and the multinational economic groups have control of the economy, causing the existence of monopolies and oligopolies. The HME labour market is characterized by low skills and for being dual, because while formal employment has strong regulation, the informal market is deregulated and flexible.

Bizberg (2015) criticizes the approach of Schneider (2009) and Schneider and Soskice (2009), stating that Latin America cannot be classified into one type of capitalism, because when the economies of the region are analysed (in the period post-stage model of import substitution) there are at least three types of economies. The first type of economy in the region is a capitalist economy subcontracting internationally disarticulated and geared exports, which focuses on the international market and had a drastic break with the way it was handled in the model of import substitution (e.g. Mexico). The second type of economy is geared towards the domestic market, which did not break with the structure model of import substitution and is not dependent on the outside to grow (e.g. Brazil). The third type of state-regulated economy and export-led, characterized by state intervention in the movement of capital and simultaneously promotes exports (e.g. Chile). There are hybrid cases, like Argentina.

3. METHODOLOGY

3.1. Economic Dimension

The methodology is based on comparing economic growth among selected Latin American countries (Mexico, Brazil and Argentina) and the other countries (South Korea, Spain and Croatia). Gross Domestic Product (GDPs) of countries was used, and because the data for Croatia is only available from 1993, we used series from 1993 to 2008 (before the crisis). The financial crisis that began in 2008 was not included because the crisis affected much more Spain and Croatia than the other countries. The database used is the World Economic Outlook (IMF), and some economic data from The World Factbook (CIA).

Five of the countries studied have not changed their economic model in the period (1993-2008), and only in the case of Argentina there was a model change in 2003, so we proceeded to divide the period into two sub-periods for that country, the first in 1993-2003 and the second from 2003 to 2008.

Another part of the methodology is to identify the varieties of capitalism with each of the selected countries. For this purpose the theoretical part of the text section is used in order to identify the impact of the type of capitalism on economic growth.

3.2. Innovation Dimension

In the literature, innovations have been defined in different ways by authors either emphasizing features, activities or a combination of both (e.g. Edquist, 1997; Dosi, 1998; Bendis & Byler, 2009). For the purpose of this paper a broad concept that defines innovation as the implementation of a new (i.e. to the market, to the world) or significantly improved product (good or service) or process, new marketing method, or a new organizational method in business practices, workplace organization or external relations (OECD & Eurostat, 2005). The innovation systems framework is used to present a comparative analysis of innovation in Argentina, Brazil and Mexico compared to Croatia, South Korea and Spain. This framework encourages analysing the whole process of innovation instead of focusing on a single aspect. An essential characteristic is the interaction among components of the innovation system (i.e. structure of production and institutional set-up).

The data from the 2014 Global Innovation Index (GII) is used to analyse the innovation performance of the select countries. The GII comprises 81 indicators and 3 types of data. Also, selected input and output scores are used to compare the countries and illustrate some of their weaknesses and strengths. The inputs capture some of the elements that enable innovative activities and the outputs the actual evidence of these activities. In this paper we classify innovators into three groups: the innovation leaders that tend to have a more balanced innovation system with strengths in all pillars; innovation followers with an innovation system that has more strengths than weaknesses; and emerging innovators with significant weaknesses but are making efforts to improve their innovation performance.

3.3. Democratic Dimension

The analysis of the structural conditions that encourage economic growth and generate innovation in the countries depends on the institutional trust of countries. The indicators that we use for this analysis, are two: the degree of confidence in terms of the rule of law (the fight against corruption), and how each country has tried very specific events that affect the confidence of private or public investment in very specific subjects as processes of public tender, certainty in terms of opening of business or infrastructure spending.

At the second level, we discuss how it is covered by the rule of law, as institutional certainty allows us to establish the conditions to be able to link economic growth with human development parameters, and for that we analyse the position of the countries surveyed in the Human Development Index (HDI). This is important considering that the democracy as a system of government often is not enough to see the stewardship of indicators of economic growth, social welfare and indicators of democracy from a liberal perspective.

In that sense, the discussion about the role that the stability and certainty offered by the institutions built under the parameters of a liberal democracy for the development of conditions that guarantee economic growth and a system of innovation in the countries is essential, since as we explain in this paper, there is a correspondence between the levels of economic growth, the HDI and the degree of democratic stability.

4. COMPARATIVE ANALYSIS

4.1. Economic Dimension

The first variable to compare the groups of countries is the GDP per capita. The following figure shows GDP per capita; Spain, South Korea and Croatia have a higher value in relation to Latin America, because the first group's average is \$27,000 dollars, while in Latin America is \$15,000 dollars. There are certain factors that have had an influence in the largest countries in Latin America and they have not attained a level of output per person in relation to Spain, South Korea and Croatia, although in the case of the latter (Croatia) is closer to Argentina. Until about 40 years ago, the GDP per capita was greater for Latin American countries than for the other countries selected, so there are certain factors that Argentina, Mexico and Brazil share, which have prevented them to achieve growth.

Spain and South Korea have a GDP per capita of \$30,000 dollars (with the financial crisis of 2008, South Korea has already surpassed Spain), the same level as countries with a high level of development. Croatia has a GDP per capita worth close to \$20,000 dollars (with the crisis this indicator has fallen), away from Spain and South Korea. In the case of Latin America, Argentina and Mexico have a similar GDP per capita, while Brazil is behind (see Figure 1).

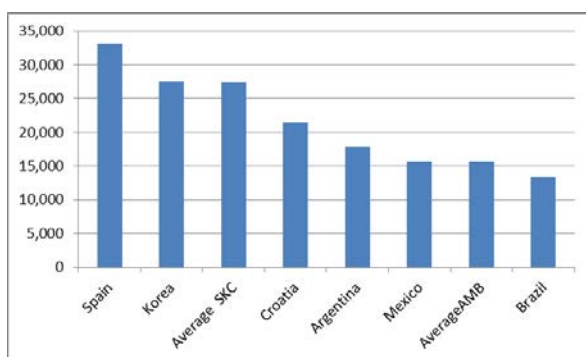


Figure 1 GDP per capita in US dollars, 2008.

Source: WEO (IMF).

A second variable is economic growth, and allows us to analyse the growth over a period of 15 years. Figure 2 shows that from 1993 to 2008 South Korea-Croatia-Spain had a GDP growth higher than the Latin American countries. South Korea grew at an annual average of 5%, followed by Croatia and Spain (both countries change the order in relation to GDP per capita, which indicates that Croatia is converging with Spain), and finally Latin America. Brazil has the highest growth in Latin America (3.20%), followed by Argentina (2.94%) and finally Mexico (2.7%). In the case of Argentina there are two different sub-periods, the first is 1993-2003, with a foreign market-oriented, with zero economic growth, while in the second period (2003-2008), domestic market-oriented, with an average economic growth of 7% annual.

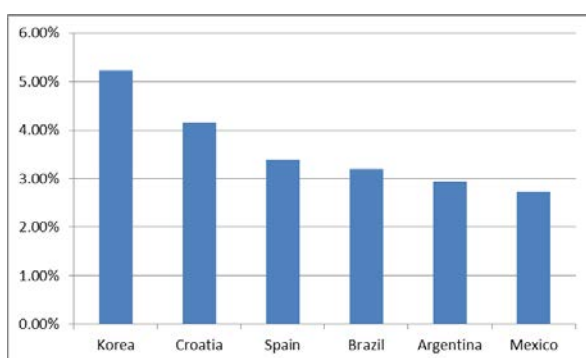


Figure 2 Annual Average GDP growth, 1993-2008.

Source: own elaboration with data from WEO (IMF).

The second part of the analysis is to compare the results of economic growth with the type of capitalism from each of the selected countries. If we link Figure 2 with the Table 1 we find that the low economic growth of Latin American countries is due to its hierarchical capitalism (Schneider, 2009), with inequality, and markets that are dominated by groups of domestic enterprises and transnational companies that are oligopolies and monopolies. To explain the difference in economic growth between Mexico and Brazil/Argentina, which is further enhanced if we take into account the 1982-2008 period (Mexico reported economic growth of 2.3%), we use Bizberg (2015). This author points out that Latin American countries do not have the same variety of capitalism, and in the case of Mexico, the author notes that the Mexican economy is characterized by being driven towards the external market, so there is a dependency that does not allow further economic growth, unlike Brazil, which has an economy geared to the domestic market, while the case of Argentina since 2003, its economy is based on the domestic market.

The policy of the Mexican government to grow based on the outside has not brought economic growth, and wage inequality has increased, because real wages have not increased, unlike Brazil and Argentina where it has been giving a boost to the minimum wage in real terms (Bizberg & Théret, 2015), in addition, social spending in these two countries has been much higher than in Mexico.

Although there are differences among the three Latin American countries, if we compare them with South Korea, the gaps are larger. Such country bases its economic growth on two strategies: the first is the financial support of large conglomerates of families (chaebol) (Witt, 2014), such as Samsung, Hyundai, LG Group and many others, supported by the South Korean government, financially and in terms of regulation (including government control of workers to cooperate with the chaebols). The chaebol have great political influence in South Korea and are comprised of groups of companies belonging to the same family. The second strategy is an active presence of the State (Amable, 2003) to support their national companies in international markets, including supporting the import of raw materials rather than consumer goods. Its exports account for half of its economy (CIA, 2015).

Spain and Croatia have been affected by the financial crisis of 2008, but have grown faster than the average of Latin American countries (in the period 1993-2008) and their GDP per capita is higher than Latin America (the Spanish is higher than the Croatian). The Spanish variety of capitalism is considered Mediterranean (Amable, 2003), between the CME and LME, while in the case of Croatia its capitalism is listed as clientelism (Cvijanovic, & Redzepagic, 2011) and is characterized by patronage ties.

The service sector of Spain and Croatia accounts for about 70% of their economies (CIA, 2015), whereas before its transition to democracy, the industrial sector accounted for a high percentage of the economy. Spain was growing on the strength of its construction sector (which later became the sector that potentiated crisis), banking (with large international banks such as BBVA, Santander) and the tourism sector, while in the case of Croatia its economic growth is based on its tourism sector and the export of some products. In both cases the state has an important role in the development of their new industries.

Table 1

Varieties of Capitalism

Country	Variety of Capitalism	Author	Characteristics
Spain	Mediterranean	Amable (2003)	-Regulated product & labour markets -Bank-based-systems - Limited Welfare State -Weak educational system
South Korea	-Asiatic -Plutocratic Stated-led	Amable (2003); Witt (2014)	-Governed product market (rather than regulated). -Regulated labour markets. -Low Levels of social protection. -Private-system of higher education and high rate of tertiary education. -The Establishment of large family-led Conglomerates (chaebol) with own banks.
Croatia	Clientelism	Cvijanovic, & Redzepagic (2011)	-Product market competition is guided by international resolutions adopted by the Republic of Croatia. -Segmented labour markets. -The financial system is guided by the big banks (concentration). -High Social security spending, but poorly distributed by patronage systems. -Low Levels of people with higher education.
Mexico	Hierarchical & external market-oriented	Schneider (2009); Schneider & Soskice (2009); Bizberg (2015)	-Economies with wage inequality and hierarchical -Capitalism disarticulated because the configuration of the structure of production takes place abroad. -Weak State Intervention -Non-existent coordination between unions and capital -Welfare State: residual and assistentialist.
Brazil	Hierarchical & internal market-oriented	Schneider (2009); Schneider & Soskice (2009); Bizberg (2015)	-Economies with wage inequality and hierarchical -The state plays a central role. -The Economy is oriented to the domestic market. -Strong labour unions and business organizations.
Argentina	Hierarchical &	Schneider	-Economies with wage inequality

	Hybrid	(2009); Schneider & Soskice (2009); Bizberg (2015)	and hierarchical. -Since 2003 its economy was reoriented towards the domestic market, but it depends on changes in political activity.
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Source: own elaboration with information from Amable (2003), Witt (2014), Cvijanovic, & Redzepagic, (2011), Schneider (2009); Schneider & Soskice (2009); Bizberg (2015).

4.2. Innovation Dimension

According to Edquist and Zabala (2009) the main purpose of an innovation system is to develop and diffuse innovations. The impact of innovation on competitiveness, politics, society and development has been analysed and studied in the literature. Governments are aware of the benefits and are implementing strategies to enhance the innovation performance of their countries. Some countries (e.g. South Korea, Spain and Croatia) have been more successful than others (e.g. Argentina, Brazil and Mexico). According to the 2014 GII South Korea ranks 16th, Spain 27th, Croatia 42nd, Brazil 61st, Mexico 66th and Argentina 70th.

Innovation leaders have invested in infrastructure, R&D, and education, among others, while innovation followers have made important investments in their input pillars but there is room for improvement and emerging innovators are facing important challenges such as weak framework conditions and insufficient investment in innovative activities, among others. There is a sharp contrast among these countries with regards to the scientific and technical resources, and the knowledge gap. South Korea is an innovation leader, Croatia and Spain are innovation followers and Argentina, Brazil and Mexico are emerging innovators according to our own classification.

4.2.1. Innovation enablers: how much have they invested on innovation?

Innovation enablers are the main drivers of innovation performance. In Argentina, the regulatory (129th) and business (124th) environments are weaknesses, as well as, investment (136th) and innovation linkages (133rd). Brazil has a weak business environment (137th) and tertiary education (120th). In both countries knowledge absorption is their most important strength (22nd and 25th, respectively). Mexico has weak innovation linkages but a strong business environment (27th) and in trade and competition (23rd) Croatia is weak in market sophistication (113th) and investment (139th) and strong in education (17th) and

ecological sustainability (16th). Spain has weak innovation linkages (79th) and knowledge absorption (85th) and good infrastructure (16th), market sophistication (15th). South Korea's weakness is trade and competition (103rd) and is strong in human capital and research (3rd), R&D (1st) and ICT (1st). In Figure 3, the innovation inputs of selected countries are presented to illustrate some of the efforts of their governments.

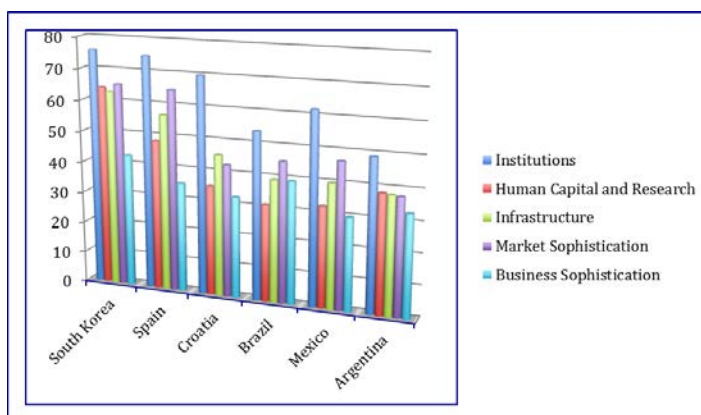


Figure 3 Argentina, Brazil, Croatia, Mexico, South Korea and Spain's 2014 Innovation Inputs

Source: Author's with data from the 2014 Global Innovation Index

In Figure 3, South Korea, an innovation leader, has an ecosystem that enables innovative activities. Spain and Croatia, innovation followers, possess elements in their national economy that facilitates innovative activities. Argentina, Brazil and Mexico, emerging innovators need to invest more in infrastructure and strengthen their institutions. South Korea is a good example of a country that has been successful in their innovation policies and strategies. The role of government is important and the country has achieved economic growth through innovation.

4.2.2. Innovation outputs: more than the usual suspects

Innovation inputs may result in measurable outputs such as patents and scientific publications. However, innovations are not only technological and these traditional outputs do not always reflect other types of innovation like business model, organization, social innovation and marketing, among others. The 2014 GII not only considers these outputs but also includes creative outputs such as intangible assets, creative goods and services and online creativity. South Korea and Spain have higher knowledge and technology outputs than creative outputs.

Croatia, Brazil, Mexico and Argentina have higher creative outputs than knowledge and technology outputs.

In Figure 4, the innovation outputs of selected countries are presented to illustrate the extent to which innovative ideas have been successful; policy makers can also use it to help them identify policy failures. These results could be explained by the type of innovations that are more prevalent in countries that have not invested adequately in infrastructure, human resources, R&D, and technology. As a result process innovations are more common than product innovations.

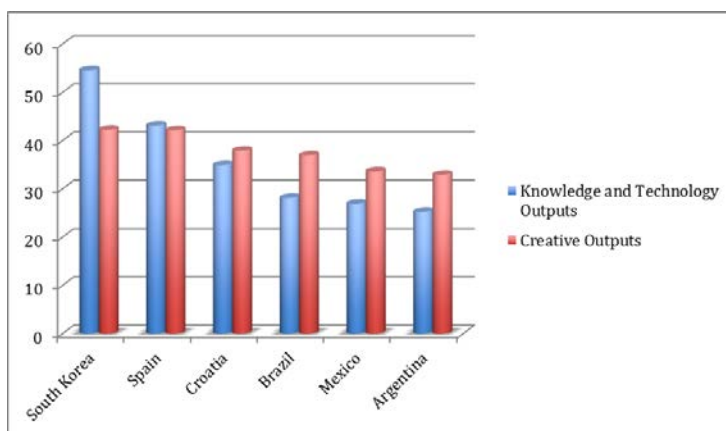


Figure 4 Argentina, Brazil, Croatia, Mexico, South Korea and Spain's 2014 Innovation Outputs

Source: Author's with data from the 2014 Global Innovation Index.

The ability to transform innovation inputs into outputs is key. The Innovation Efficiency Ratio (IER) is calculated as the ratio of the output over the input sub-index. The IER ranks Croatia in 36th, Argentina in 43rd, South Korea in 54th, Spain in 60th, Brazil in 71st, and Mexico in 79th. In Figure 5, the Global Innovation Index score vs the Innovation Efficiency Ratio in selected countries is presented. All of the selected countries except Brazil and Mexico are efficient innovators. Countries can have an enabling environment to innovation but they are not able to translate it into innovation outputs.

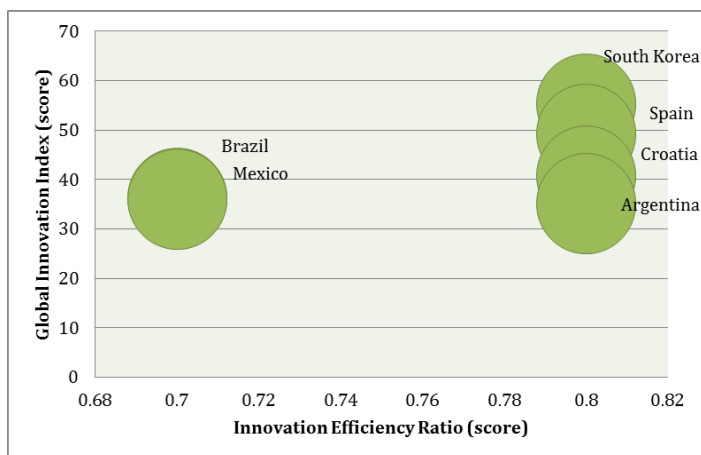


Figure 5 Global Innovation Index vs Innovation Efficiency Ratio in selected countries

Source: Author's with data from the 2014 Global Innovation Index.

One of the goals in this paper is to compare the selected countries innovation using the data from the 2014 GII to foster learning and help improve performance. We compared the inputs, outputs and innovation efficiency ratio of an innovation leader (South Korea) and two innovation followers (Spain and Croatia) with three emerging innovators (Argentina, Brazil and Mexico) highlighting their strengths and weaknesses. The results are clear; countries that have invested in innovation activities outperform those who have made inadequate investments. Strong institutions, human resources, research and infrastructures that enable innovative activities are key.

Governments need to establish clear and feasible innovation strategies and set measurable goals connected to the outcomes they seek (e.g. economic growth, job creation). Human resources are important but more than quantity, quality should be the goal (e.g. analytical and IT skills). Strengthening institutional capacity for innovation should be a priority in Argentina, Brazil and Mexico. Innovation policies should address systemic problems, each country is unique and it is not recommended to imitate innovation leaders but to adopt and adapt to their specific needs the best practices. Innovations to solve local challenges can emerge from within the country if the required innovation enablers are present and can produce innovative solutions.

4.3. Democratic Dimension

Political theory linked, in the middle of the 20th century, democracy with economic development. By taking the references of the capitalist economic

conditions and merging them with procedural institutional processes of the liberal Theories School of democratic pluralism is generated.

The pluralist model is built on the idea that there are two requirements to be able to speak of a democratic system: (a) an established capitalist economy and (b) a rule of law that allows the adjustment of the institutional life of the society.

The first aspect that is covered is the development of conditions of economic well-being, because if they do not exist, the population may undergo a process of disaffection in terms of democracy, or, they may even legitimize an authoritarian political system by which then democracy leads to conditions of a market economy and where conditions of well-being for society arise in general.

In the second aspect, the system must comply with a number of requirements for the conditions of participation in organized and institutionalized channels that ensure the development of a society with a degree of consolidation for its democratic political practices, this under the presence of the rule of law.

There is a degree of consolidation in terms of the presence of the rule of law and the degree of democratic consolidation in the selected countries, in this case, in the variable of the corruption, the ranking of countries (see Table 2).

Table 2

Corruption Perception Index, ranking for selected countries 2012-2014

Rank	Country	2014 Score	2013 Score	2012 Score
37	Spain	60	59	65
43	South Korea	55	55	56
61	Croatia	48	48	46
69	Brazil	43	42	43
103	Mexico	35	34	34
107	Argentina	34	34	35

Source: own elaboration with data from Transparency International 2014
<http://www.transparency.org/cpi2014/results>

If we analyse country by country, we would find that the treatment of cases of corruption is different. For example, Spain has faced a series of clear corruption cases, in 2014 the Punica operation cases, the Black cards used by senior officials of the Spanish Government for their personal expenses, the case Urdangarin, the husband of the Infanta Cristina of Spain (still on-going). The constant in all these cases is that even though some of them are not yet in prison, in most of them, there are senior officials who have been held responsible for and are in prison. This has been very positive for the establishment of the rule of law. The same situation ensued in Croatia, where senior officials have been

imprisoned such as the Major of Zagreb, Milan Bandic, on suspicion of abuse of power and corruption, and the former Prime Minister, Ivo Sander. In 2015, the Prime Minister of South Korea, Lee Wan-koo, resigned after suspicion of having accepted bribes from a businessman.

However, in the selected Latin American countries the situation is entirely different, since the cases of corruption not only are increasingly noisier, they are handled with a high level of impunity. In Brazil the scandal of the oil company Petrobras, who presents pictures of corruption with an embezzlement of almost \$1.6 billion dollars, product of bid-rigging scheme. Nevertheless, it should be mentioned that at least in this case Brazilian prosecutors have accused more than 100 people of corruption, money laundering and other financial crimes, while investigations on-going.

Both Mexico and Argentina represent dramatic examples in terms of corruption cases or scandals, impunity and the lack of the rule of law. For example, according to the 2014 Corruptions Perception Index, Argentina has fallen consistently for the third consecutive year ranked 107 of 175. In Mexico, the case of HIGA group and the conflict of interest with President Enrique Peña Nieto and the Minister of Economy, Luis Videgaray, where this group has obtained very important public contracts and has granted houses for less than 46% of market value.

The application of the rule of law, responds directly to the degree of functioning of pluralist democracy parameters (i.e. as a system of checks and balances) where there must be clarity in the separation of powers and in the management of accountability, showing a social value in the case of countries where there is a fuller democracy applied more widely the rule of law (Spain and South Korea) while in other countries applied reservations or even detected cases of corruption (Brazil and Croatia) that were investigated and punished by the authorities, and in others it was handled with impunity and even cynicism on behalf of the politicians involved (as they might be the case of Mexico and Argentina), and this corresponds according to the scores of the 2014 Democracy Index of The Economist Intelligence Unit as shown in Table 3.

Table 3

2014 Democracy Index (Full Democracy: FD, flawed democracy, fd)

Ranking	Country	Score	Index
20	South Korea	8.13	FD
25	Spain	8.02	FD
44	Brazil	7.12	fd
50	Croatia	6.93	fd
51	Mexico	6.90	fd
52	Argentina	6.84	fd

Source: own elaboration with data from The Economist Intelligence Unit, 2014.

After this analysis, we can infer that countries with a high Human Development Index (HDI), also have less corrupt governments. Spain and South Korea are countries with full democracies. In this sense it becomes necessary to understand that a country can create optimal conditions to generate development and a national system of innovation. It is necessary to build a stable and consolidated institutional environment under an embedded democracy. This means that there is a relationship between the consolidation of institutional indicators, such as democracy and the rule of law, an effective distribution of the economic surplus, transforming them into tangible satisfiers for the quality of life of citizens.

Table 4

2014 Human Development Index for selected countries

Country	Ranking (2014)	Human Development Index (2014)
South Korea	15	0.891
Spain	27	0.869
Croatia	47	0.812
Argentina	49	0.808
Mexico	71	0.756
Brazil	79	0.744

Source: own elaboration with data from UNDP, 2014.

Thus, as seen in Table 4, Spain, South Korea and Croatia have the greatest potential to consolidate their economic growth with social wealth distribution, and enhance their innovation system, since they have optimal conditions for economic competition, certainty and security for investment and have a system that guarantees more effective conditions for the implementation of the rule of law that tackles corruption and impunity. This environment attracts investment and makes more effective the scheme of a democratic system with an advanced and stable capitalist environment allowing the effective development of the countries.

5. CONCLUSIONS

Overall, Brazil, Argentina and Mexico are ranked below South Korea, Spain and Croatia in innovation, democracy and economic growth. Latin American countries share certain characteristics that imply that they do not generate creative destruction, because they have monopolistic and oligopolistic structures in their markets (among other things) and generate **hierarchical** economies. On the other hand, the lack of innovation in the region explains that economic growth in the period 1993-2008 has been low compared to other countries. In addition, the **hierarchical capitalism** in the region has prompted a slow democratic progress.

Although Latin American countries share certain features, we have mentioned that the Mexican case presents the lowest levels of economic growth, the lowest indicator of efficiency of innovation and is considered a failing economy, this can be explained by the type of capitalism it employs. The variety of Mexican capitalism is regarded as "sub-contracting international and disarticulated" and the government has prioritized strategies abroad as a means to achieve development, however that economy is disconnected from its domestic market, which has generated high levels of inequality. In the case of Brazil, the government has focused on a strategy that prioritizes the domestic market, which has led industrialization and not completely dependent on international markets. Argentina since 2003 follows a strategy like that of Brazil (not equal), and that has generated economic growth.

South Korea has found a strategy that has enabled it to have economic growth through innovation and strong government support of domestic conglomerates groups that are characterized by being large exporters. Spain based its economy in the sectors of construction, tourism and banking, allowing it to have economic growth, with a strong presence of the State as a regulator. However some of these sectors became vulnerable to Spain in the 2008 financial crisis. Croatia transformed its economy after its war of independence, from an economy with a strong industrial sector to one based on services (with a strong tourist activity). Croatian capitalism has been considered "clientelism" due to the government's relations with the various economic actors.

Overall, economic growth, innovation and the level of democracy should go hand in hand, although it is not always the case. With the comparison performed among the Latin American countries and a group of countries with different characteristics (South Korea, Spain and Croatia), we can conclude that **hierarchical capitalism** produces low economic growth, inhibits creative destruction and impact negative to the democracy, due to the existence of monopolies and oligopolies.

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FUNCTIONAL INCOME DISTRIBUTION, ECONOMIC GROWTH AND TRANSFORMATION IN CHINA

JEL classification: O11, O47, O53

Abstract

Based on the Bhaduri-Marglin model, this paper establishes an economic model concerning surplus labor supply and credit constraints in Chinese economy to analyze the relationship between the change of the functional income, the economic growth and the transformation in China. Credit constraints have a significant effect on the relationship of the functional income distribution and economic growth. When an economy grows with credit constraints, such as China, it could change from a wage-led growth regime in classical Bhaduri-Marglin models to a profit-led growth regime in our model, and vice versa. Empirical estimation shows that if labor share improves by 1 percent, private consumption will improve by 0.59 percent and it does not have negative effect on China's economic growth. As a result, if the government could control the opportunity and strength of the economic reform policies which concern functional income distribution, private consumption and investment effectively, China's economy could transfer to a consumption-led growth path smoothly.

Key words: functional income distribution, economic transformation, consumption-led growth

1. INTRODUCTION

During the past 30 years, China's economy has kept a growth rate of 9.9% annually, which creates a "China's economy miracle". However, the "Only GDP" growth mode and Heavy Industry Oriented development policy lead to the decreasing of the labor share in functional income distribution since the mid-1990s under current income distribution system. And the labor share has dropped to 47% by 2011, which is significantly lower than the average level of world major economies during the same period. The deterioration of the functional distribution would not only affect the economic growth in the long period, but also intensify the gap between the rich and poor. So it's important to explore the effect of increasing the labor share in functional income distribution on economic growth and transformation, especially for policy makers who want to lead Chinese economic growth to a consumption-led path.

Most recent research on the relation between functional income distribution and economic growth is based Bhaduri-Marglin model which is proposed in 1990. In this model the increase of labor share will expand private consumption as a result of the marginal propensity to consume of wage being higher than that of the profit, which will also has a negative effect on investment and net export demand via decreasing the international competitiveness of domestic products. As a result, the influence of the change of the labor in functional income distribution on total demand could be attributed to an empirical problem. For example, Hein & Vogel (2008), Stockhammer et al. (2009), Onaran et al. (2011), Bowles (2013) etc., have studied the economic growth mode empirically. If the increasing of labor share has a positive effect on total demand, then the economic growth is wage-led, otherwise, it's profit-led.

Based on the Bhaduri-Marglin model, this paper establishes an economic model concerning surplus labor supply and credit constraints in Chinese economy to analyze the relationship between the change of the functional income, and the economic growth and transformation in China. Our model could explain the problem of the labor share doesn't have significant effect on investment, which also enriches the connotation of the growth mode in Bhaduri-Marglin model. On this basis, we analyze how would the change of labor share affect Chinese short-term growth and transformation and offer some suggestions for building a long-term private consumption growth mechanism in China.

2. THE CHANG OF FUNCTIONAL INCOME DISTRIBUTION IN CHINA

Before analyze the relationship between functional distribution, economic growth and transformation, we summarize some facts of the change of functional income distribution in China based on perspective of sectors. Generally speaking, the income of the household sector corresponds to the wage income in the functional income distribution, the income of the business

enterprise sector corresponds to the capital income and the income of the government corresponds to the total tax.

Table 1 shows the change of household sector, business enterprise sector and government sector in functional income distribution during 1992-2011. Specifically, during 1992-2000 both the primary distribution and the redistribution are conducive to the business enterprise sector. During the nine years, the proportion of the business enterprise sector rose by 0.66-percentage-point in the primary distribution and nearly 4-percentage-point in redistribution. The proportion of the government sector declined by 2-percentage-point in the redistribution while the household rose a little in the primary distribution and declined a little in the redistribution. As a result, the income distribution changed to a situation which is conducive to the business enterprise sector and is bad for the household sector.

During 2000-2008, the proportion of the business enterprise sector in the primary distribution rose by 6.89-percentage-point again, the proportion of the household sector declined by 8.49-percentage-point and the proportion of the government rose a little. In the redistribution, the proportion of the business enterprise sector fell by 2-percentage-point, the proportion of the government sector rose by nearly 3-percentage-point and the proportion of the household sector fell by 1-percentage-point. So during this period, the income distribution changed to a situation which is conducive to the business enterprise sector and the government sector.

Table 1

The change of income distribution in China

Period	Primary distribution			Redistribution		
	Business enterprise Sector	Government sector	Household Sector	Business enterprise Sector	Government sector	Household Sector
1992-2000	0.66%	-2.40%	1.74%	4.61%	-4.43%	-0.18%
2000-2008	6.89%	1.60%	-8.49%	4.81%	4.45%	-9.26%
2008-2011	-2.66%	0.65%	2.01%	-2.71%	0.21%	2.50%
Total	4.89%	-0.15%	-4.74%	6.70%	0.23%	-6.93%

Source: *China Statistical Yearbook*

During 2008-2011, the proportion of the business enterprise sector in the primary distribution fell a little, the household sector rose by 2-percentage-point and the government sector rose a little. In the redistribution, the proportion of the business enterprise sector and the government sector fell a little while the

household sector rose by 0.5-percentage-point. So during this period, the income distribution changed to a situation which is conducive to the household sector.

3. THE THEORETICAL MODEL

The total domestic demand (y) consists of private consumption (c), government consumption (g), investment (i), export (x) and imported (m),

$$y = c + g + i + (x - m) \quad (1)$$

Suppose the tax rate is τ , the labor share in functional income distribution is Ω , then private consumption could be treated as a function of wage income Ωy and profit income $(1 - \Omega)y$. The marginal propensity to consume (MPC) of them are β_w and β_π , $0 < \beta_\pi < \beta_w < 1$. So the private consumption could be written as

$$c = \beta_w(1 - \tau)\Omega y + \beta_\pi(1 - \tau)(1 - \Omega)y = [\beta_w\Omega + \beta_\pi(1 - \Omega)] * (1 - \tau)y \quad (2)$$

The MPC of government is β_g , so

$$g = \beta_g(1 - \tau)y \quad (3)$$

Assume the import function is a linear function of total output with a marginal propensity to import ξ , so

$$m = \xi y \quad (4)$$

Put (2) (3) and (4) into (1), we can get

$$y = \frac{i + x}{1 - (1 - \tau)[\beta_w\Omega + \beta_\pi(1 - \Omega)] - \beta_g(1 - \tau) + \xi} = \frac{i + x}{u} \quad (5)$$

And $u = 1 - (1 - \tau)[\beta_w\Omega + \beta_\pi(1 - \Omega)] - \beta_g(1 - \tau) + \xi$, u^{-1} is

Keynes output multiplier, which depends on tax rate, labor share and so on. Then both sides for (5) operate total differential and divide y simultaneously, and we get

$$\hat{\hat{y}} \hat{\hat{u}} = -u + \frac{i}{uy} \hat{\hat{i}} + \frac{x}{uy} \hat{\hat{x}} = -u + \Psi_i \hat{\hat{i}} + \Psi_x \hat{\hat{x}} \quad (6)$$

Here we have $\Psi_i = i/uy$, $\Psi_x = x/uy$. They could be seen as weighted-multipliers adjusted by the proportions of investment and import demand in total demand. From (6), we can find that output growth rate is linear weighted average of investment growth rate and import growth rate. Ψ_i and Ψ_x depend on u and are endogenous variables. Next we try to get expressions of the three variables on the right of (6).

We can get growth rate of u from its expression,

$$\hat{u} = -\frac{(1-\tau)(\beta_w - \beta_\pi)\Omega}{u}\hat{\Omega} = -\frac{(1-\tau)(\beta_w - \beta_\pi)\Omega}{u}(\hat{\omega} - \hat{\lambda}) \quad (7)$$

As a result of long term surplus labor supply in China, the real wage growth is little which means $\hat{\omega} \approx 0$. While $\hat{\lambda} > 0$ in actual economy, from (7) we can conclude that $\hat{u} > 0$. It will lead to Ψ_i and Ψ_x becoming smaller.

According to Bhaduri & Marglin (1990), profit share and capacity utilization are main variables in the investment function. Just as in most current study, we assume the investment function is

$$i = ab^{\phi_0} \pi^{\phi_1} y^{\phi_2} \quad (8)$$

Here a is a positive constant and b includes all other factors affecting investment.

However, most part of investment in China is government investment which usually has a close connection with economic growth target and macroeconomic-control target made by government. It means investment function in China may be different from (8) which are applicable to developed economies. For China we should focus on credit constrains in Chinese commercial bank system and establish a new investment function which is different from that of current research (Gong & Lin, 2007).

Suppose the total amount of loans that can be obtained by government and enterprises are ΔM which is supposed to be exogenous for simplicity. All investment projects may face credit constrains no matter it belongs to government or enterprises while some of them may get rid of credit constrains as a result of their smaller scale. Suppose there are N projects which are arranged in a particular order to make the first n projects are restricted by credit constrains and the last $N-n$ projects are not. As a result, the actual investment of the first n projects is $\Delta M_i (i = 1, 2, \dots, n)$ which is equal to the upper limit of credit constrains they face; the actual investment of the last $N-n$ projects is $\Delta M_i^* (i = n, n+1, \dots, N)$ which is the optimal investment without credit constrains. The optimal investment depends on market principle and could be

seen as a function of profit share and total demand written as $f(\pi, y)$. In summary, the investment function we used here could be written as

$$i = \sum_{i=1}^n \Delta M_i + \sum_{i=n+1}^N \Delta M_i^* = \Delta M' + f(\pi, y) \tag{9}$$

Here $\Delta M' = \sum_{i=1}^n \Delta M_i$, $f(\pi, y) = ab^{\phi_0} \pi^{\phi_1} y^{\phi_2}$. So the growth rate of investment could be written as

$$\hat{i} = \Delta \hat{M}' + \phi_0 \hat{b} + \phi_1 \hat{\pi} + \phi_2 y = \Delta \hat{M}' + \phi_0 b \phi_1 - (\Omega/\pi) \phi_1 (\hat{\omega} - \hat{\lambda}) + \phi_2 \hat{y} \tag{10}$$

Suppose the export demand is a decreasing function of unit labor cost which is equal to labor share Ω and an increasing function of total external demand D_f . Then the export function could be written as

$$x = a_e D_f^{\varepsilon_0} \left(\frac{\Omega}{\Omega_f}\right)^{-\varepsilon_1} \tag{11}$$

For simplicity, we assume $\varepsilon_0 = 1$ and $\Omega_f = 1$ just as Naastepad (2006) and the export function could be written as

$$\hat{x} = \hat{D}_f - \varepsilon_1 \Omega = D_f - \varepsilon_1 (\hat{\omega} - \hat{\lambda}) \tag{12}$$

Put (7) (10) (12) into (6), we can get the growth rate of the total output

$$\hat{y} = \frac{\Psi_i \phi_0 \hat{b} + \Psi_x \hat{D}_f}{1 - \Psi_i \phi_2} + \frac{(1 - \tau)(\beta_w - \beta_\pi) \Omega u^{-1} - \Psi_x \varepsilon_1 - \frac{\Omega}{1 - \Omega} \Psi_i \phi_1}{1 - \Psi_i \phi_2} (\hat{\omega} - \hat{\lambda}) + \frac{\Delta \hat{M}'_i}{1 - \Psi_i \phi_2} \tag{13}$$

From (13) we can find there are three factors affecting economic growth in our theoretical framework. The first one is the nature growth rate of investment and external demand (\hat{b} and \hat{D}_f). According to classical economic theory, they have a positive connection, which means $1 - \Psi_i \phi_2 > 0$. The second one is the relative growth rate of real wages and labor productivity which decides whether the change of labor share is positive or negative. The third one is the growth rate of total constrained investment operated by government and entrepreneur. If the

economic growth is overheating and the government want it to slow down, then the constrained investment increases, which means $\Delta\hat{M}_i' < 0$; if the economic growth slows down fast (much lower than the target made by the government) and the government want to stimulus the economic growth, then the constrained investment decreases, which means $\Delta\hat{M}_i' > 0$. Suppose $\hat{\omega} - \hat{\lambda} > 0$, if $\Delta\hat{M}_i' > 0$ and

$$(1 - \tau)(\beta_w - \beta_\pi)\Omega u^{-1} - \psi_x \varepsilon_1 - \frac{\Omega}{1 - \Omega} \psi_i \phi_1 > 0 \tag{14}$$

That means $\beta_w - \beta_\pi > \frac{1}{1 - \tau} (\frac{x\varepsilon_1}{\Omega y} + \frac{i\phi_1}{(1 - \Omega)y})$, and then the increase of

the labor share could improve the economic growth rate. If $\Delta\hat{M}_i' < 0$

and $\beta_w - \beta_\pi < \frac{1}{1 - \tau} (\frac{x\varepsilon_1}{\Omega y} + \frac{i\phi_1}{(1 - \Omega)y})$, the increase of the labor share would

have a negative effect on economic growth. It's not sure how the change of the labor share would affect the economic growth under other circumstances. The conclusion is different from current research when considering credit constrains in commercial bank system of China, which indicates that a wage-led growth economy could behave like a profit-led one, and vice versa. Table 2 shows the details of our conclusion.

Table 2

Judgement on economic growth mode

Judgement Condition	$\Delta\hat{M}_i' > 0$	$\Delta\hat{M}_i' < 0$
$\beta_w - \beta_\pi > \frac{1}{1 - \tau} (\frac{x\varepsilon_1}{\Omega y} + \frac{i\phi_1}{(1 - \Omega)y})$	Wage-led Growth	Can't Judge
$\beta_w - \beta_\pi < \frac{1}{1 - \tau} (\frac{x\varepsilon_1}{\Omega y} + \frac{i\phi_1}{(1 - \Omega)y})$	Can't Judge	Profit-led Growth

The enormous credit target made by the government has a significant effect on the relationship between labor share and economic growth in an economy like China whose investment is mainly decided by the government plan. As a result, compared with developed market economies, we could not only depend on empirical evidence, but also the government's administrative instructions when we judge whether Chinese economic growth is wage-led or

profit-led. Our model could explain why the wage share changes in totally different directions in different periods since 1992, but the Chinese economy still grows in a high rate. With the implementation of market-oriented reform policies in different areas, the effect of $\Delta \hat{M}_i' < 0$ on the investment would decrease gradually, and the “real characteristic” of the growth mode of Chinese economy would be revealed at the same time. While it’s noteworthy that, the growth mode of an economy is not unchanged even omit the credit constrains in investment field. From (13) we can find that the relative change of marginal propensity to consume of the wage income and the profit income, the change of tax rate, the proportion of import to wage income and the proportion of investment to profit income could all cause the change of the economy growth mode.

4. EMPIRICAL RESULTS

Next we use single equation estimation method to estimate how the change of labor share would affect Chinese economic growth and transformation. All data come from China Statistical Yearbook. Variables are all deflated by GDP deflator and come into estimation equation by log-form. Considering the time series data is too short for unit root test and China’s economy has changed profoundly during this period, we use ADL models in differential form.

4.1. Consumption

We estimate consumption function using the following forms,

$$\begin{aligned} \ln c = & 1.235^{***} + 0.691^{***} \ln W^A + 0.072 \ln \pi + 0.332^{**} L2. \ln c \\ & - 0.219^{**} L3. \ln c \end{aligned} \quad (I)$$

$(R^2 = 0.999, D.W. = 1.507)$

$$\begin{aligned} D. \ln c = & -0.0314^{**} + 0.800^{***} D. \ln W^A + 0.200^{*} D. \ln \pi \\ & + 0.145^{*} LD. \ln c \end{aligned} \quad (II)$$

$(R^2 = 0.933, D.W. = 1.945)$

$$\begin{aligned} D. \ln c = & -0.033^{***} + 0.776^{***} D. \ln W^A + 0.197^{*} D. \ln \pi \\ & + 0.180^{**} LD. \ln c \end{aligned} \quad (III)$$

$(R^2 = 0.957, D.W. = 1.704)$

Estimation (I) is OLS in log form adding lagged dependent variables to eliminate autocorrelation in the residuals. Estimation (II) adopts first order difference of variables to eliminate nonstationary and multicollinearity.

Estimation (III) uses the same form with (II) but takes PW-FGLS estimation. The profit income doesn't have a significant effect on consumption in estimation (I). Maybe it's because the existing of multicollinearity. Considering estimation result of (II) and (III) are similar and the DW statistic of (II) is superior to that of (III), so we adopt the result of estimation (II).

We can find that when wages and profits increase by 1%, private consumption will increase by 0.80% and 0.20% respectively, and the total effect is approximately equal to 1%. As the MPC of wages is significantly higher than that of profits, when wages increase private will also increase. In order to calculate the direct partial effects of a change in the labor share on the GDP growth contribution of consumption, the elasticities estimated above are converted using average values over the whole period and the value in 2011 for c/W and c/π respectively. It shows that a one-percentage-point rise in the labor share, according to our results, increases private consumption by 0.57% during the whole period and by 0.59% at the end of the period. It indicates improving the labor share could release private consumption effectively and provide a stable domestic demand for economic transformation.

4.2. Investment

We still use the traditional form as Bhaduri & Marglin (1990) to estimate the investment function which takes it as a function output and profits. Considering the interest rate r may influence the investment, so it's also taken into the estimation. All estimations show that neither the government investment nor the private investment has a significant connection with the change of profits. So we take money and quasi money supply ($M2$) by the central bank into estimation which represents the government's intent on economic control. And the GDP deflator reflecting the degree of inflation is also considered. The detailed estimation results are showed as follows

$$D.\ln i = 0.156^{***} - 0.376LD.\ln \pi + 0.458^* LD.\ln y + 0.432^{***} LD.\ln r \quad (I)$$

$$(R^2 = 0.750, D.W. = 1.684)$$

$$D.\ln i = -0.042 - 0.232LD.\ln \pi + 0.958^* D.\ln y + 0.286D.\ln r - 1.259^* D.\ln def \quad (II)$$

$$+ 0.891D.\ln M2, (R^2 = 0.698, D.W. = 1.792)$$

$$D.\ln i = -0.068 + 0.412 * D.\ln y + 0.319^{***} D.\ln r - 1.034 * D.\ln def + 1.235^{***} \quad (III)$$

$$D.\ln M2, (R^2 = 0.730, D.W. = 1.916)$$

$$D.\ln i = -0.067 + 0.407 D.\ln y + 0.312^{**} D.\ln r - 1.017 * D.\ln def + 1.234^{***} \quad (IV)$$

$$D.\ln M2, (R^2 = 0.725, D.W. = 1.984)$$

Estimation (I) (II) and (III) adopt OLS and (IV) adopts PW-FGLS. Specifically, the coefficients of profits in (I) and (II) are not significant and are negative which is contradictory with theoretical expectation. We drop profits in (III) and (IV), as a result, all coefficients become statistically significant. We adopt (IV) to analyze where GDP and M2 all have positive effect on investment and deflation has a negative effect, which is consistent with theoretical expectation. The negative coefficient of interest rate may be related with the uncompleted market-oriented interest rate in China. The interest rate may reflect government's intent more than market price. Higher interest rate means strong investment demand with overheating economic growth and it will make the government raise the interest rate in order to reduce the investment demand. However there is a time lag in the macroeconomic control and the investment demand is insensitive to the change of interest rate, so the investment demand and the interest rate change in the same direction. As a result, we can conclude that the change of profit share doesn't have a significant effect on investment in China.

4.3. Net Exports

The growth rate of net export is much higher than that of GDP, which lead to the estimation for net export function being very sensitive to the empirical form we adopt. Current research usually adopts two ways to estimate the coefficient for the net export. The first is to take the net export as a function of domestic demand y , external demand y^f , exchange rate E and labor share, which means $NX = f(y, y^f, E, \Omega)$. The second is a two-step estimation. At first it takes the domestic price as a function of unit labor cost (related to the wage share) and the price level of import product. Then it takes the import and export demand as a function of domestic price level.

Considering the availability of the related data and the data period is too short for a two-step estimation which will cause larger estimation errors, we adopt the first way to estimate. There is no much difference between the last two

estimation methods in fact according to current research. We used the GDP of the 40 main economies as the proxy variable of y^f . The details show as follows

$$\begin{aligned}
 D.\ln nx &= -3.084^{***} + 37.800^{***} LD.\ln y + 7.273^{**} D.\ln y^f \\
 &+ 5.943^* D.\ln W^A - 8.440^{**} LD.\ln W^A - 4.742^* L2D.\ln W^A \\
 &+ 4.855^{**} L3D.\ln W^A + 19.163^{***} D.\ln E \\
 R^2 &= 0.919, D.W. = 1.907
 \end{aligned} \tag{I}$$

$$\begin{aligned}
 D.\ln nx &= -3.103^{***} + 38.442^{***} LD.\ln y + 7.448^{**} D.\ln y^f \\
 &+ 5.522^* D.\ln W^A - 8.803^{**} LD.\ln W^A - 4.850^* L2D.\ln W^A \\
 &+ 5.169^{**} L3D.\ln W^A + 18.884^{***} D.\ln E \\
 R^2 &= 0.912, D.W. = 1.899
 \end{aligned} \tag{II}$$

$$\begin{aligned}
 D.\ln nx &= -2.527^{***} + 30.214^{***} LD.\ln y + 9.016^{**} D.\ln y^f \\
 &+ 6.468^* D.\ln W^A - 8.205^{**} LD.\ln W^A + 16.037^{***} D.\ln E \\
 R^2 &= 0.792, D.W. = 2.469
 \end{aligned} \tag{III}$$

$$\begin{aligned}
 D.\ln nx &= -2.744^{***} + 35.551^{***} LD.\ln y + 5.500^* D.\ln y^f \\
 &+ 8.796^{***} D.\ln W^A - 11.947^{**} LD.\ln W^A + 20.350^{***} D.\ln E \\
 R^2 &= 0.919, D.W. = 2.379
 \end{aligned} \tag{IV}$$

Estimation (I) (III) adopt OLS and (II) (IV) adopt PW-FGLS. We adopt the estimation of (I) which shows that if the labor increase by 1%, the net export will decrease by 2.38% (=5.94%-8.44%-4.74%+4.86%). Then convert it to direct partial effects which show a one-percentage-point rise in the labor share decreases net export by 0.21% during the whole period and by 0.13% at the end of the period. The marginal effect of the change of the wage share on net export has a positive relationship with the net export share in GDP. Influenced by the financial crisis since 2008, the economy recovery trend of all main economies is not steady, which leads to the sharply decrease in net export share in GDP. Although it is bad for Chinese economy growth, it creates a better external environment for economy to transform into consumption-led growth path promoted by the increase of wage share. Under this circumstance, the increase of the labor share would not cause severe fluctuations, though it would decrease the net export demand to some extent.

4.4. Total Effect

When add up all effect of compositions of total demand, we can get the effect of the change of labor share on economy, which is shown in (15),

$$\frac{dy}{d\Omega} = \frac{dc}{d\Omega} + \frac{di}{d\Omega} + \frac{dnx}{d\Omega} \tag{15}$$

To make the conclusion more intuitive, the change of GDP compositions (consumption, investment and net export) is converted to the relative change with respect to GDP. Considering the wage share has insignificant effect on private investment demand, we will approximate $\frac{di}{d\Omega}$ to zero. As we know, the transformation from elasticities to marginal effects is decided by the convert-time point, so we figure out how would the private consumption, net export and GDP growth rate change if the wage share increased by 1-point-percentage during 1992 to 2011 (see Figure 1).

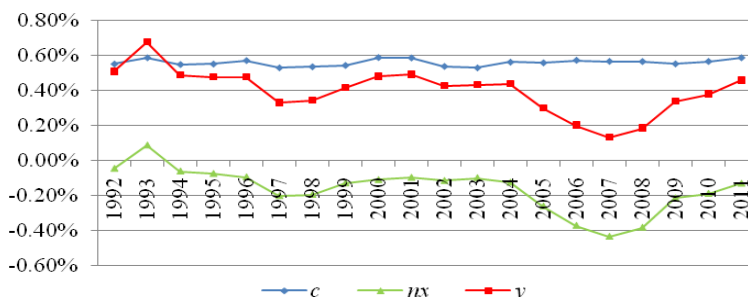


Figure 1 The Change of GDP Compositions

The computation in Figure 1 shows that the wage share has a steady effect on private consumption. But the private consumption is sensitive to the change of net export demand. Since the financial crisis in 2008, the effect of the increase of the labor share on the net export demand has weakened to a lower level by 2011. At this time, if the wage share increased, its negative effect on net export would be totally offset by the positive effect on private consumption and would make the total demand increase by 0.46%. Both the wage share and the proportion of the private consumption in GDP decrease for Chinese economy at present time, which is not helpful to foster endogenous drivers of economic transformation. In 2011, according to our estimation, a 7- percentage-point rise in the labor share (the highest point during the last 20 years) increases private

consumption by 4% and decreases net export by 0.13%. As a result, the total output increases by 0.46% assuming the investment is not influenced by it.

It is noteworthy that the computation results shown in Figure 1 are only suitable for describing the short-term effect in the current context. This is because, firstly, the effect of government's administrative intervention in Chinese economy will gradually weaken accompanied with the implementation of market-oriented economic transformation policies which will make the market principle play a much more important role in Chinese economic activities. It means the effect of the change of the wage share on investment would also become significant gradually; secondly, with the recovery of global economy growth, the net export share in GDP will increase and the effect of the change of the wage share on the net export will also get larger. All of this will lead to the effect of the wage share increase on total demand being lower than what is shown in Figure 1. The circumstance may be totally different, which depends on the growth rate of the private consumption.

In addition, the wage share value and the sensitive of compositions of total demand to the change of the wage share, from multinational studies (Onaran & Galanis, 2013), do not have identified relationship for different economies. However, for one economy, the change amount of private consumption is usually more than that of the investment when the wage share increases or decreases. For Chinese economy, the sensitivity to wage share change is higher for private consumption, lower for investment and net export and moderate for total demand compared to economies which have the approximately same wage share. Under the circumstance that the external demand increases slowly with lots of uncertainty, even the sensitivity to wage share change for investment increases to the level of developed economies, it would still not have negative effect on economic growth. The Chinese economy could build a consumption-led growth momentum and transform from investment-led growth path to consumption-led growth path by increasing the wage share in functional income distribution and making the market principle play a decisive role in economic activities.

5. CONCLUSIONS

On conclusion, according to our research, the increase of the labor share in China could increase total output effectively. As a result of the existing credit constrain, the effect of the wage share change on investment is not significant. With the shrinking of external demand, the marginal change of the net export demand is much lower than the change of wage share.

Although Chinese government has a significant and powerful effect on investment and the net export decrease sharply since 2008 for China, both of them provide a suitable external environment for Chinese economy to transform into a consumption-led growth path. With the implementation of market-oriented reformation policies and the recovery of world economy, the negative effect of

the rising of the wage share on the total demand will gradually expand. If China could take full advantage of this Golden Period of economic transformation, it would find an equilibrium point between economic growth and transformation based on releasing of private consumption which are two main topics for China in the next 10 years.

First of all, the Chinese government should try to build a long-term mechanism to motivate the increase of private consumption. It should improve the wage income to increase the labor share in the functional income distribution. The low income-groups should be paid more attention and they should also get more opportunities to gain the dividend of the fast economy growth. The household management system should be reformed to give peasant-workers the same social welfare as the local residents and let them get more income. And the confirmation of rural land property rights should be implemented gradually to increase the rural residents' income. What's more, the government should complete the social security system and improve the quality of private consumption products to optimize people's consumption expectation and increase the marginal propensity to consume for all kinds of incomes.

Secondly, the government should reduce its control on economic activities, especially in the credit market, to make market mechanism play a decisive role in economic activities. The private investment should be led into the areas related to the improvement of private consumption under the premise of respecting the market mechanism. Local government should change the GDP-oriented development goal and pay more attention to the fields of public goods, such as education, health and social securities to build a positive feedback between private investment, government investment and private consumption. As a result, the short-term economic growth momentum and the solid and economic transformation foundation would be built at the same time. It is noteworthy that it would be helpful to reduce the negative effect of the rising of the wage share when the private investment demand is activated by economic reform policies in China.

Thirdly, the government should co-ordinate the economic reform policies in different areas. The economic transformation is usually accompanied by the slow down of economic growth. However, our research find that Chinese economy should find a transformation path by improving the wage share which is not at the cost of the slow down of the economic growth. When the reform policies in both private consumption and investment areas are controlled reasonably, the private consumption growth and the steady economy growth could be achieved at the same time, which demand the government take full consideration of the potential risks during the process of economic transformation when pushing on reform policies in different fields. The government should enhancing the top design of the new economic reformation at present and match the timing and the the degree of the effect of different policies reasonably to make the economy get more benefit than risk during the process of the reform in case that the severe economic fluctuations happens.

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MANAGEMENT AND ORGANIZATION

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COLLABORATIVE RISK MANAGEMENT FRAMEWORK WITH MODIFIABLE RISK REGISTER STRUCTURE

JEL classification: G32

Abstract

Scarce successes in Enterprise Risk Management implementations are largely due to long process of risk register development, poor monitoring of emerging risks, lack of collaborative effort and lack of effective communication and training. A recent study published by Arthur J. Gallagher Think Tank, indicates that it takes the enterprise 18-26 month to develop a risk register, after which the effort gets stuck, as the risks are reviewed periodically by a single appointed Risk Officer or a Team. The enterprise, however, frequently faces emerging risks that have to be assessed and mitigated. They are addressed most efficiently by multidisciplinary, interdepartmental teams in a collaborative environment. This paper describes a framework for Collaborative Risk Management based on the model of Multidimensional Preemptive Coordination. The risk register modifiable structure allows for run time expansion, making mitigation a continuous process. Variable risk structure depth allows risk management at different hierarchical altitudes.

Key words: collaborative risk management, enterprise risk management, risk register

1. INTRODUCTION

Corporate interest in Enterprise Risk Management (ERM) has particularly exploded after the last financial crisis. A report on Enterprise governance, risk and compliance (GRC) solutions (Chartis Research, 2014) states that traditional GRC has failed to alert the financial institutions to risks that led to the financial crisis. Financial institutions were not the only one to suffer fines and penalties from inadequacies of GRC procedures, energy sector and pharmaceuticals manufacturers followed suit. Financial consequences were significant in general businesses also. This led to vast research effort to analyze the causes of poor performance of otherwise robustly conceived systems.

The enterprises approach ERM implementation by enumerating corporate risks, evaluating their attributes and organizing them into a corporate Risk Registry. Operational risk identification and Risk registry design is often performed by a single risk official (32%), or a small designated team (45% - source Beasley, 2015) in a series of interviews, surveys and meetings that collide with everyday personnel responsibilities. This practice lengthens the implementation phase considerably (18-26 months).

A detailed Risk Registry has up to few thousands identified risks, which makes it cumbersome to manage. Once designed, the structure of the Risk Registry remains fairly rigid due to necessary risk aggregation and interdependencies. Emerging risks, that might require a different risk structure, are difficult to merge into the existing design. This is even more pronounced in the construction industry, where each project might have its own set of particular operational risks.

If the Risk Registry could be restructured in time while retaining the interdependencies, risk aggregation could be recalculated and new risks easily merged into existing business workflow. Multidisciplinary risk assessment in meetings and interviews could be strengthened with a focused social networking making an efficient collaborative environment. Modifiable risk structure and social network collaboration, makes Risk Registry design a continuous process. This suggests that ERM implementation need not be constrained by Risk Registry completeness, and can enter into the enterprise everyday workflow as it develops.

This paper describes a risk management framework that combines a modifiable risk breakdown structure with multidimensional collaborative environment that significantly reduces ERM implementation time.

2. TRADITIONAL RISK MANAGEMENT AND ITS SHORTCOMINGS

A number of risk management frameworks are recognized in the literature, each one with different formal steps, but all of them are trying to identify, assess and remediate risks.

The ISO 31000 standard describes a framework for implementing risk management, rather than the framework for supporting the risk management process (FERMA, 2009). After the initial step of mandate and commitment, the standard proposes following steps: design of framework, implementing risk management, monitor and review the framework, improve the framework.

PMI body of knowledge framework (ANSI, 2004) is oriented towards project risk management and involves six steps: Risk Management planning, risk identification, qualitative risk analysis, quantitative risk analysis, risk response planning and risk monitoring and control.

The COSO framework (COSO, 2004) is an enterprise wide framework with the following steps: internal environment, objective setting, event identification, risk response, control activities, information and communication and monitoring.

The Software Engineering Institute framework (Dorofee, 1996) with five distinctive steps: identify, analyze, plan, track and control with communication being underlying infrastructure essence.

Fairly framework (Fairly, 1996) implies seven steps: identify risk factors, assess risk probabilities and effects, develop strategies to mitigate risks, monitor risk factors, invoke a contingency plan, manage the crisis and recover.

Continuous Risk Management NASA framework (Stamatelatos, 2011) contains six phases and is a life cycle process: identify, analyze, plan, track, control and communicate risk. The research "Seizing opportunity: Linking risk and performance" (Atkinson, 2008) clearly identifies "inadequate risk assessment practices" as the most important shortcoming in corporate performance management. It further states that traditional approach to Risk Management, where risks are grouped in silos, create dangerous blind spots for business. Risk is, by definition, forward looking. It is a measure of probability, either loss or gain, which directly impacts corporate performance objectives. Almost 60 percent of the time, failure to assess and respond to strategic or business risks is behind rapid declines in shareholder value.

Institute of Management Accountants published practical ERM implementation guidelines (IMA, 2007), with distinctive ERM maturity models. The model has three phases:

- a) building a foundation for Business Risk Management with three stages: awareness, capability and alignment

- b) building segment level Business Risk Management, also with three stages: engagement, value and operationalize
- c) building enterprise level Business Risk Management with final three stages: collaborate, coordinate and integrate.

According to the Gallagher report (2013), the first phase takes on average 18-26 months. It is performed by a small team, sometime with external consultants in meetings with operations personnel or performing surveys. This leads to prolonged first stage implementations, which is perceived by the rest of the enterprise a one-time effort, and, consequently, not something the rest of the enterprise should include in their everyday activities.

Within the COSO ERM framework (COSO, 2004), risk assessment is defined as a process of four steps. The assessment phase comes into effect after the risk is identified. Risk identification produces a comprehensive list of risks organized by risk category (financial, operational, strategic, compliance) and sub-category (market, credit, liquidity, etc.) for business units, corporate functions, and capital projects. This phase is where the Risk Breakdown Structure is decided upon.

The assessment process begins with Development assessment criteria which are to be deployed across business units, corporate functions, and large capital projects. The criteria is defined in terms of likelihood and impact and sometimes as vulnerability and speed.

The next step is Assess risks where values are assigned to each risk. Assess risk interaction follows which usually results in risk interaction matrices. Lastly, risk prioritization takes place, where risk levels are compared with predetermined target list levels.

Assessment phase is followed by design of responses to risks, cost-benefit analysis, response strategy formulated and response plans developed.

In “Operational Risk Management in the Financial Services Industry” (SAS and Risk magazine, June 2004), most important obstacles to successful operational risk management were identified as:

- a) Difficulty in collating sufficient volume of historical data
- b) Overall awareness and knowledge of operational risk issues amongst general staff
- c) Difficulty in ensuring the quality of the data and
- d) Cost and time of implementation

Historical data is difficult to obtain as the risk management procedures are not integrated effectively into the business process, and hence, are regarded as extra, unimportant work. Everyday business processes are supervised by C-level

executives or supervisors on a daily basis, while risk monitoring procedures are commonly verified by audits performed once of few times a year.

The Gallagher study (Gallagher, 2013) distinguishes four fatal risk management conditions:

- a) Absence of appropriate tone at the top: the necessity for compliance is diluted with the Board. In that sense, the last financial crisis was a wakening call. Board members became fully aware of financial implications of poor Risk Management.
- b) Poor monitoring of emerging risks: the risk should be managed at a proper altitude in the hierarchy of the enterprise. Monitoring operational risks should be enforced by clear formulation of requests for action, and milestone checking upon execution. Results of the monitoring routines should be recorded, as well as lack of them.
- c) Decentralization and/or Lack of accountability: centralized “silos” of information make it difficult for remote operations to become compliant, because business procedures differ. Lack of accountability make compliance enforcement difficult to implement
- d) Lack of effective communication and training: poor communication will always impede awareness. Effective communication is essential for status change detection.

The amount of data that must be interpreted often proves to be overwhelming. This represents one of the major challenges effective risk assessment (“A practical guide to risk assessment“, PriceWaterHouseCoopers 2008). Steps should be taken to personalize the data for each participant, to limit the amount of data that is presented to him, so he could focus to the problem at hand.

The lack of accountability is one of the reasons why risk assessment often is not acted upon. The accountability is enforced by communicating clear goals, risk owners, and milestones or deadlines that must be met. An audit trail of actions performed will also reveal lack of action and will steer the participant to meet the milestone.

The same report distinguishes another risk assessment challenge: Too many different risk assessments are performed across the enterprise. The risks should be assessed at the operational level, at the altitude where it will be managed best. The visibility of the team that performs risk assessment for a set of business procedures should be kept limited to those procedures, to avoid data overload.

Recent survey of 1093 enterprises, AICPA members (Beasley et al. 2015) showed that 25% of respondents consider that their organizations have “complete formal enterprise-risk management process in place”, but only 23% describe their maturity level as being “Mature” or “Robust”. Further 41% admit

to not being “at all satisfied” or “minimally” satisfied with the nature and extent of the reporting of key risk indicators to senior executives. Overwhelming 65% admit they were caught off guard by an operational surprise “somewhat” to “extensively” in the last five years. This percentage was even higher for large organizations and public companies.

3. RISK REGISTERS WITH MODIFIABLE STRUCTURE

Identified risks are organized in a hierarchical structure, the Risk Breakdown Structure (RBS), which denotes the appropriate reporting structure for risk management. The RBS can follow different logic, it can be structured following the corporate organizational structure, which would align business unit managers as risk owners. In this alignment, a project manager would own all the risks pertinent to his project, and would be able to manage the project risks and detect risk status changes more efficiently.

A different approach would be to organize the risk hierarchy by risk type (strategic, financial, operational, compliance...). This organization would allow the management to assess more efficiently the risks on a corporate level, because they would not be granulated by business units, but the unit managers would lose the ability to assess the risk impact on a business unit level, as the risks would be granulated under different risk types in the enterprise.

The ERM design phase includes not only risk identification and assessment, but also development of mitigating procedures, events, responses and triggers tied to a particular risk. Few internal risks are independent of each other. In the WillisWire blog “Guide to ERM: Interdependence of Risks” (Underwood, 2014, p.2) the interdependency of risks is defined with four clear rules:

- a) Two risks that move perfectly in lockstep are assigned a correlation value of +1
- b) two risks that move exactly opposite to one another have correlation -1
- c) two risks whose movement is completely unrelated have correlation 0
- d) other possibilities fall along this spectrum accordingly

Risk interdependency is most commonly expressed in a correlation matrix. Most sources assume that the interdependency is bidirectional, when, in effect, this is only a special case. The illustrative Risk Interaction Map in “Risk Assessment in Practice” (Deloitte, 2012, p.12) shows that Supply Chain Disruption risk is related to Economic Downturn risk. Economic downturn certainly might influence Supply Chain Disruption in the enterprise, but the opposite is not plausible. In the same matrix, Exchange Rate Fluctuations risk is related to Customer Preference Shift risk which might be quite significant for enterprise everyday operations, but changes in customer preference certainly would not provoke exchange rate fluctuations.

Risk interdependency is embedded in the Risk Breakdown Structure. SAS white paper “Risk Aggregation and Economic Capital” (SAS, 2010, p.2) describes risk aggregation models in banks from simple linear aggregation to copula models. Most often, the Value at Risk (VAR) or Expected Shortfall (ES) is aggregated. But values at risk are not the only information embedded into the Risk Breakdown Structure. Each sub-risk has a number of events or triggers that might change the sub-risk status. Each sub-risk status change might invoke a change in the status of the risk at a higher level. The status change at a higher level is governed by the threshold imposed at each sub-risk.

Sub-risks are not the only interdependency of a particular risk. A risk can be related to a risk in a different part of the Risk Breakdown Structure. In a risk structure organized by business units, a particular risk often depends on a risk in a different business unit.

Risk hierarchy by organizational unit

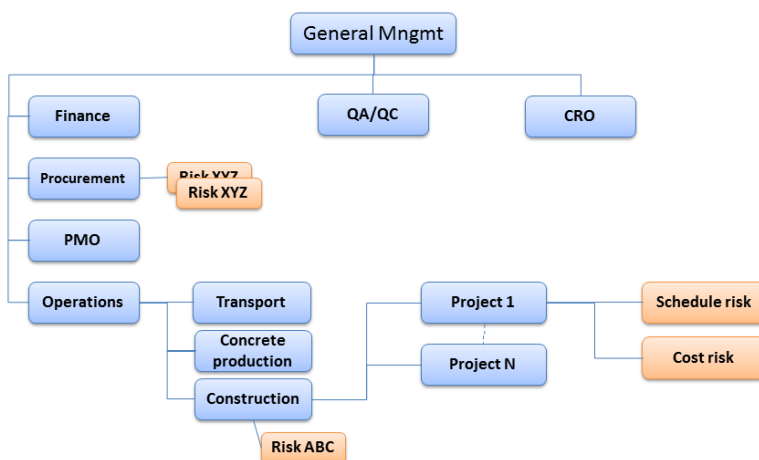


Figure 1 Risk Breakdown Structure by organizational unit

Consider a construction enterprise. The most important risk in construction industry is the risk of construction cost overrun, classified as high and frequent (Banaitiene, 2012). Numerous sources indicate that delays in construction activities are the primary cause of construction cost overruns. A research led by Flyvbjerg & all (2004) revealed that the 84% of 258 large international infrastructure projects had cost overruns which averaged to astounding 28% of the project budget. In the Schedule Delay Risk, the activities

that are on the critical path, may delay the whole project, so it is reasonable that this risk would be quite important to the project manager.

In an activity involving pouring concrete, the risk of delay may be caused by external conditions (like weather) and internal, like insufficient qualified personnel assigned to the activity. But there are a number of factors that might influence activity delay, that are external to the project, but still inside the enterprise, in other business units, where the project manager does not have the power to enforce priority to his project. There may be a disruption in concrete delivery, either by lack of operating vehicles in the Transport Department, or by changed production priorities in the Concrete Production. The interdependence is clearly directed from the Production Plant towards the Project as the delay in project schedule due to other causes will not influence concrete production. Changes in Concrete Delivery Delay Risk status (defined in Production Plant Risk Breakdown Structure sub-tree) might change the Activity Delay Risk status of a particular project. Another project might not have any concrete pouring activities, and might be totally independent of developments in the Concrete Production Plant.

Risk identification and assessment is a multidisciplinary task. Operational risks are best assessed at operational level by C level executives and personnel that are performing everyday tasks. In the illustrated case of Activity Delay Risk, the project manager will not single handedly assess this risk and correlated sub-risks. It will take a multidisciplinary team of qualified personnel from Concrete Production, Transport Department and probably Financials and Procurement, to assess the risk in full and to design triggers and mitigating procedures. Most importantly, a communication protocol must be established. This is addressed by the Multidimensional Preemptive Coordination explained in the next chapter, but is mentioned here to illustrate the complexity of information cubicles tied to a single identified risk.

Risk monitoring adds another level of complexity into the Risk Register structure. Integrating monitoring procedures into everyday business activities leaves a trace of history records tied to a particular risk. Once the risk monitoring starts, history data, collaboration efforts, procedure results, auditing findings are recorded and linked to a risk and hence, to a point in a Risk Registry structure. Such a risk monitoring system was described by Bacun (OFEL proceedings, 2015).

Traditionally, once the risk hierarchy structure is selected, all the rest of the Risk Management system is built upon it. It remains static and new risks are added into the same structure. This is an acceptable situation for mostly static enterprises, like banks and insurers, but project oriented enterprises, in construction industry and the like, face different challenges. They would introduce different levels of hierarchy corresponding to the different project amplitude. A single project might become so significant, that it is separated almost to the level of a separated business unit. A number of projects might be

grouped depending on a predominant activity type. A group of projects might be regrouped into different monitoring structure, corresponding to changed workflow conditions. An ongoing project might be organizationally split into segments due to organizational or geographical contingencies.

New risks are added into the existing registry structure and the registry is expanded as situation evolves. This might satisfy enterprise needs at the strategic level. But on the operational level, new developments might mandate a restructuring of the Risk Register. The Risk Register should not be rigid. A point in a Risk Breakdown Structure, whether it is an ending point (*leaf*) or a higher level point (*node*), might need to be *moved* to another part of the RBS, together with all the information cubicles attached to it. This is achieved by embedding structure information in a risk record using any of the available tree structure maintenance algorithms.

If the Risk Breakdown Structure is modifiable in run time, then emerging risks can be addressed more efficiently. We would not need to develop full operational Risk registry of few hundred or thousands of risks before we put monitoring into action. The ERM implementation would start with few important risks and develop over time. The 18-26 month of initial Risk Registry development could be significantly reduced, as risk registry development would become a continuous process.

4. COLLABORATIVE RISK MANAGEMENT FRAMEWORK

Risk Registry development starts with strategic risk identification and assessment. It cannot be done by a single individual or team, because it encompasses all of the business functions formulated through enterprise business objectives. The assessment process advances via meetings and interviews with qualified personnel from different business units and different professional levels. Those initial efforts collide with everyday business activity which is probably the reason for long initial ERM implementation.

Research on meeting efficacy (Romano & Nunamaker, 2001) has shown that 73% of participants questioned meeting effectiveness due to poor planning, 11%-25% of time was spent on irrelevant issues, 33.4% consider meeting time is unproductive and majority of surveyed executives concluded that 20%-30% of the meetings were unneeded. At the same time, on average, 9.6 hours are spent per week in meetings. Between 8% and 15% of personnel budget of the company is spent on meetings. At an average of 15 participants in a meeting (depending on a company size), the analysis found that total cost of meetings are in range of US\$50 million to US\$ 70 million annually.

KPMG report identifies software tools as indispensable in risk management practice. They have paramount role in providing the organizational

infrastructure that enable risk executives to make appropriate decisions. 73% of interviewed C-level executives consider technology an indispensable tool to embed risk management into everyday business procedures.

Multidimensional Preventive Coordination governs the communication across the enterprise. It provides collaborative infrastructure based on multiple coexisting corporate social networks focusing participant's efforts on particular risk variants. The system automatically maintains an auditable trail of previous actions performed during assessment, so new professionals are easily introduced on per need basis contributing quickly and efficiently. They share information, new developments and discuss alternatives on a corporate social wall which is private to the invitees. The model is easily extended to include individuals external to the enterprise in a safe way, with a horizon of visibility restricted to the problem in focus (Bacun, 2014).

Multidimensional Preemptive Coordination

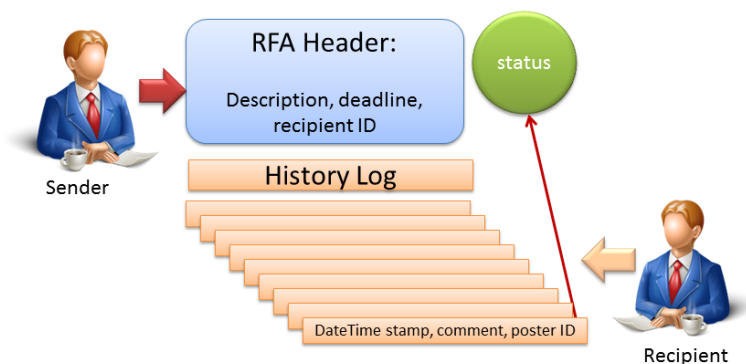


Figure 2 A simple form of Request for Action

In its most simple form, the Sender issues a Request for Action (RFA) to the Recipient with a task description, a deadline and an initial status. The Recipient logs the progress, problems and new developments in the RFA history log. Only the Sender may change the details of the issued RFA. The system logs the changes into the history log. Only the Sender can declare an opened Request for Action finished.

Both Sender and the Recipient can post to the history log, but neither of them can change or delete log entries. Each log entry is given a unique ID, the poster ID and a date/time stamp, creating an audit trail of task's progress. Both

Sender and Recipient can change the status of the RFA, signaling the other party of a new development. The system also can change the status of the RFA, if a particular condition is met, like approaching or missed deadline, no activity for a period of time, or some other, predetermined condition. The history log becomes a topic social wall where the participants discuss and monitor the progress of a particular business problem, while the system maintains an audit trail of actions performed. The topic social wall is visible only to the invitees.

The Recipient might initiate a subtopic, requesting help or information from another party via a linked RFA. Such a discussion would be part of the original thread and visible to the original participants. The subtopic Recipient will not see the original discussion, as his horizon of visibility is restricted to the level of the received RFA. In this way, participants can be introduced to different altitudes of the enterprise effort keeping their focus sharp. Linked Requests for Action form a single thread of assessment effort, integrated into a single coordination topic, where each participant has a different scope of visibility.

Each participant may be part of multiple threads. His own corporate social wall will show news, discussions, instructions and reported problems from all the threads he participates in, from his horizon of visibility. He can easily respond or comment on any post and change the status, and the system will alert the participants of appropriate thread.

The coordination structure includes participants from different departments and seldom follows the organizational structure of the enterprise. Time spent on a particular request resolution might interfere with Recipient's everyday tasks. The Recipient's supervisor (or upper level in the corporate organizational structure) is alerted of approaching or missed deadlines. If everyday business activities are governed by appropriate Requests for Action, the supervisor gets full insight into subordinate time and activities. The subordinate reports daily progress, problems and new developments using received request as a report card. The Risk Management is fully integrated into business activities and becomes a continuous every day process.

The Board would assign the initial request Recipients and deadlines to initial risks, allowing board members to monitor progress of ERM implementation. Each Recipient would invite the necessary professionals into the topic and issue further Requests for action down the line. Assessments would identify further risks at the lower levels, which would be assigned a coordinator via a RFA. The identified risks would be assessed. Responses, events and triggers would be designed, mitigating and monitoring procedures set up, and owner designated. Each risk would be intrinsically positioned at a certain altitude, not necessarily following the organizational structure of the enterprise. Risk granularity will not be a problem, as no single individual would handle all the risks, but rather, only those that are in his horizon of visibility. The system would propagate alerts instantaneously, both through the Risk Breakdown Structure and the Organizational Breakdown Structure.

5. CONCLUSION

The adoption of Risk Management in the enterprise has been disappointing. In recent AICPA survey of 1093 enterprises, only 25% of respondents consider that their organizations have “complete formal enterprise-risk management process in place”, but only 23% describe their maturity level as being “Mature” or “Robust”. After the initial stage of Risk Registry development, the effort stalls, primarily because the lack of integration into everyday business life, everyday business activities. The initial identification and assessment takes as much as 18-26 month (Gallagher, 2013) which leaves the impression of one time effort. The resulting Risk Registries are expanded with new entries into the same structure with overwhelming granularity. Emerging risks that would demand registry restructuring are difficult to implement.

This paper describes a framework with variable depth Risk Registry, which allows positioning each risk at the proper corporate altitude, hierarchical position where it will be best managed. The Registry is flexible, allows restructuring in run time and simplifies integration of new emerging risks into corporate life. Risk identification and assessment is governed by the model of Multidimensional Preemptive Coordination, introducing collaborative environment, corporate social networking, for multidisciplinary effort to address emerging risks. Risk granularity is solved by participant’s focused horizon of visibility to invited risk assessment processes. Participation in multiple assessment procedures, multiple coordination topics, is solved by individually tailored social wall, where the participant can easily respond, share new ideas and report problems. The system maintains and auditable log of all actions performed introducing accountability across the enterprise. Status changes, approaching and missed deadlines and alerts are propagated vertically both through the Risk Breakdown Structure and Organizational Breakdown Structure, enabling enterprise wide communication, personalized for each participant.

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INFLUENCE OF OUTSOURCING ON INNOVATIVENESS AND CHARACTERISTICS OF HOTEL ENTERPRISES IN THE DUBROVNIK- NERETVA COUNTY

JEL classification: L20

Abstract

Quick response to market changes and raising the level of competitiveness are considered to be key factors of business of hotel enterprises. Strategic management of hotel enterprises involves the use of different tools that help improve the business performance. Outsourcing of activities can be used as an option that facilitates the improvement of business operations. By using outsourcing, an enterprise tries to improve a variety of business segments that are included in the internal organization of the business, thereby trying to meet the needs of consumers. An important factor in business of an enterprise is innovation that results in creating comparative advantage over competitors. The paper aims to explore the application of outsourcing in hotel enterprises in the Dubrovnik-Neretva County. The purpose of the paper is to explore the correlation between outsourcing and innovativeness of hotel companies. The hypothesis is that an increase in the level of outsourcing is related to a higher degree of innovation of hotel enterprises. We will analyze innovations in the tourism sector related to the introduction of new products and services, technological equipment and software, new activities and organization of

business operations, as well as innovations in the field of marketing. The research will be focused on the application of outsourcing in hotel enterprises, where it is planned to investigate the activities that are separated the most and their importance for the company's business. Attention will also be focused on characteristics of hotel enterprises with regard to outsourcing.

Key words: outsourcing, innovativeness, characteristics of hotel enterprises

1. INTRODUCTION

After the successfully completed transition period, Croatian tourism achieved enviable results, particularly in the last fifteen years, when progressive growth and development were registered. Considering the last period from 2012 onwards, it can be concluded that the average increase in overnight stays on an annual basis in the Dubrovnik-Neretva County stood at the level of 6.5%.¹ More than 50% of the observed overnight stays accounts for hotels and similar accommodation. In accordance with that, the marked dynamism of the tourist market calls for a clear strategy to be defined by hotel enterprises, by clearly defining the objectives that are intended to be achieved in a certain time period. The specificity of hotel services is manifested in the fact that competition necessitates positioning on the market with the use of outsourcing and innovation that facilitate the differentiation of supply and increase in the market share. In addition, the business of hotel enterprises is sensitive to geopolitical and economic trends in the market, the globalization of which has forced hotel enterprises to invest additional efforts into a strategy that would contribute to achieving business success. Since hotel enterprises cannot influence the external environment, it is necessary to focus attention on internal business segments that can help achieve a better position in relation to the competition.

The objective of the paper is to explore outsourcing as a strategic tool with which hotel companies separate part of their activities and try to reduce costs and raise the quality of their services. The research is focused on hotel enterprises in the Dubrovnik-Neretva County, where it is desired to explore the correlation between outsourcing and innovativeness of hotel enterprises. In accordance with the studied literature, it can be assumed that there is a correlation between outsourcing, which contributes to increasing levels of innovativeness of hotel enterprises through innovations in business operations. The analysis will include manufacturing, technological, process, organizational and marketing innovations.

In accordance with the stated facts, the following hypothesis can be made:

¹ Croatian Bureau of Statistics, www.dzs.hr, [accessed 6.6.2014]

H1: Hotel enterprises that have a higher level of outsourcing have a higher level of innovativeness.

Also, basic characteristics of the hotel companies that separate some business activities will be explored, in which process it will be established whether there is a statistically significant difference with regard to application of outsourcing. In studying the characteristics of hotel companies, it can be assumed that a difference in basic characteristics exists, or that the hotel companies that use outsourcing differ from the hotel companies that do not use it. As the criteria that will be included in the study, it is possible to select: legal form, ownership structure, number of seasonal employees, size and age of hotel companies.

In accordance with the abovementioned, the following hypothesis therefore can be made:

H2: Hotel companies that use outsourcing are different from the hotel companies that do not use outsourcing in basic characteristics.

The research methodology includes a questionnaire as the research instrument that is distributed to randomly selected hotel companies included in the basic set of the study. Once collected, the data were sorted out and processed, and based on the formed database, statistical analysis was carried out, the results of which are presented in the empirical part of the study.

In terms of the structure of the paper, it should be emphasized that the introductory part of the paper covers introductory considerations of the subject area, resulting in the objective and purpose of the research, on the basis of which we make hypotheses that we will try to prove in the following, by using an adequate methodology. Also, the first part of the paper presents in more detail the theoretical framework that takes into account previous research of the considered subject area. The second part of the paper represents the empirical part of the research in which results of the conducted study are presented. At the end, the paper presents final considerations, recommendations for future research and limitations that affected the considered research.

2. OUTSOURCING IN THE CONTEXT OF INNOVATIVENESS AND CHARACTERISTICS OF HOTEL ENTERPRISES

Business operations in the hotel sector call for a wide range of knowledge and skills of hotel managers, who often do not have enough time to devote themselves to each hotel activity sufficiently, which poses a problem in current business and puts into question the quality of the performed service and expenses incurred in the performance. In line with this, it is possible to consider the specifics of hotel services in business operations of hotel enterprises that are very sensitive to tourist demand, which is location-specific or specific to the position of the hotel enterprise. The specifics of services offered by hotel

enterprises are tangible and intangible in nature. The traditional understanding of basic functions of hotel business is related to food and accommodation, while other functions had a secondary character. As the tourist sector evolves, the functions gradually become business processes consisting of a series of activities, which assume different levels of importance for business operations of hotel companies. The manifestation of performance of certain activities represents the foundation for perception of the service experienced by guests, while employees at all operational levels in hotel companies play the main roles. A special role is played by managers who by their decisions help create a hierarchical structure of business processes or influence the performance of individual business activities of hotel enterprises. In accordance with the above facts, it is necessary to take into consideration various possibilities of operative management, whose ultimate goal is to raise business performance levels of hotel companies. In this context, it is possible to consider the concept of outsourcing, which is offered as a strategic tool for achieving the set goals of hotel enterprises. Outsourcing involves transferring internal business functions, processes or activities to outside suppliers or service providers as set forth in a concluded contract (Greaver, 1999, p.3). In addition to separating certain activities, which may involve transfer of staff, property and equipment, the concept of outsourcing today is used as a synonym for raising the quality levels of performance of some activities so as to include creating added value. Beginnings of the idea of outsourcing were aimed at separating some secondary business activities in order to achieve savings, while recently the concept of outsourcing is used to achieve a strategic position in the market. Separation of certain activities depends on the size, location, market and ownership of hotel enterprises. Consideration of implementation of outsourcing in hotel enterprises need to be viewed through competencies, organizational culture, the system of review, evaluation and control of activities, the branding system and operativeness of the business (Lamminmäki, 2003, p.70-88). Most hotel enterprises in the world base their business on separating and branding individual business activities (Barrows et. al., 2006, p.419). Differentiation of supply through outsourcing is used for implementation of new ideas in order to achieve competitive advantage and increase the level of invention and innovation of hotel enterprises.

Consideration of innovativeness in the context of business of hotel enterprises need to be viewed through the following specific qualities that characterize the business of hotel enterprises (Pivčević, 2010, p.61):

- Simultaneousness of production and consumption of services,
- IT intensiveness,
- Importance of the human factor,
- Importance of organizational factors.

All these parameters represent the specifics of the hotel sector that are manifested through a wide range of hotel business activities, the final product of which are the services provided to guests. The process of innovations is the

systematic development and practical application of ideas or the process of turning innovations into new procedures, techniques, technological processes, technologies and products (Buble et. al., 2007, p.90). Previous research (Pivčević, 2010, p.78-81) of innovativeness of hotel enterprises resulted in the conclusion that material innovations were applied more than service innovations. Lack of financial resources is stated as the main reason of the insufficient level of innovativeness. A higher level of innovativeness is registered in larger hotels that have a higher service category, and the environment of hotel enterprise is emphasized as an important factor affecting innovation. Also, it can be concluded that there is a positive relationship between the internal employee training and introduction of innovations. This suggests a strong commitment to employment through training gives positive impacts on innovation activities (Martinez- Ros et. al., 2012, p.693).

In general, innovativeness in the tourism industry can be observed through changes in the product, processes, logistics, organization, market and marketing. The above factors influence the perceived experience of guests (Peters et. al., 2009, p.79.). Innovations in hotel companies are an integral part of internal processes and are aimed at creating long-term value. The research process consists of two stages that are related to research of the market and design and development of a product or service. In the research process, we obtain knowledge of the characteristics of the market and needs of potential and present consumers. Having identified the needs and wishes of consumers in the target market, hotel enterprises make efforts to find innovative solutions for development of new products and services that usually have longer service life than "traditional" products or services (Žager et. al., 2008, p.363-366).

Consideration of innovation processes in hotel enterprises need to take into account continuous changes of trends and demands in the market and to involve them in planning processes. To find new ways of attracting guests by promoting the supply and increasing the quality of guest stays is one of the important tasks of innovativeness in hotel enterprises. The analysis should also include the differentiation in relation to the competition through differences in the supply and perception of products and services (Peters et. al., 2009, p.130). It is necessary to consider the facts related to increasingly demanding attitude of guests, who simultaneously want new services and also expect standardized services that hotel companies have, in which process they can be very price-sensitive at one moment, while at another moment they are not interested in the cost price of a certain product or service. Therefore, business operations of hotel companies must take into account innovativeness of all business segments, which guests compare with other competitors, selecting the hotel company that will best satisfy their needs and preferences.

By observing innovations in the hotel business, it is possible to carry out the classification of innovations into (Pivčević, 2010, p.67, 245-246):

- Production innovations – involve the introduction of entirely new products and services and/or significant improvement of the existing ones (e.g. different loyalty programs for guests, traditional events, etc.),
- Technological innovations - involve the introduction of new technological equipment or software and/or significant improvement of the existing ones (e.g. surveillance system, "smart" rooms, etc.),
- Process innovations - involve the introduction of new and/or significant improvement of the existing methods of providing services, distribution and/or support business activities (e.g. changes in logistics etc.),
- Organizational innovations - involve the introduction of new organizational business methods and/or significant improvement of the existing ones (e.g. changes in relations with external partners etc.),
- Marketing innovations - involve the introduction of a new and/or significant improvement of the old design and interior and exterior decoration, method of promotion and/or sales (e.g. new logo etc.).

A continued focus on the satisfaction of guest needs through innovativeness of the hotel business is essential for achieving the leading position in the market. The increasingly demanding market forces hotel companies to understand innovativeness as a key factor of creating value. In this context, predicting future wishes and needs of guests ensures superiority over increasingly large and capable competition. Originality of ideas in the hotel business has an important role in increasing guest loyalty and increasing the share in target markets. Innovativeness may require additional financial investments that represent costs in the short term. However, in the long term, if business of a hotel enterprise is oriented to meeting the needs of guests through satisfied employees, innovativeness helps hotel companies achieve business success.

Characteristics of hotel enterprises that determine business operations of hotel enterprises have an important role in everything. Hotel enterprise is a complex legal body that is different from other enterprises in the tourism sector in many respects. If a comparison with agencies, restaurants and casinos is made, it can be concluded that hotel enterprises are operation- and capital-sensitive. It is these very differences that influence the structure and mechanisms of corporate governance (Dropulić Ružić et. al., 2011, p.180). As an economic entity, enterprise represents a complex concept that should be considered from the aspects of ownership, scope of activity, size, legal form, sociological aspect, and other aspects that give it some other characteristics (Cerović, 2010, p.102). If ownership structure of hotel enterprises is taken into account, it can be concluded that hotel enterprises that are domestic or foreign majority private property are more successful in terms of business than majority state-owned hotel enterprises (Knežević Cvelbar et. al., 2007, p.32). One of the essential characteristics of hotel companies concerns work force and the ratio of permanent to seasonal employees. Due to a high percentage of staff turnover, hotel enterprises spend a lot of time on the recruitment of new employees that may be outside of the hotel enterprise or in the form of promotion of the existing staff (Hayes et. al., 2005,

p.145-146). Although hotel enterprises do not pay greater attention to staff recruitment, it should be noted that the said is one of the key factors of business success of hotel enterprises because it is directly related to provision of services and contact with guests.

Therefore, it is necessary to examine characteristics of hotel companies in the context of application of outsourcing and analyze the results, on the basis of which it will be determined whether hotel enterprises differ in characteristics with respect to application of outsourcing.

3. SURVEY

3.1. Survey method

According to the database of the Croatian Chamber of Commerce², 51 hotel companies were registered in the area of the Dubrovnik-Neretva County (DNC) under the sort code I551³ Hotels and Similar Accommodation. The basic set includes all active small, medium and large hotel enterprises that have one or more employees and that have submitted financial statements for 2013 and are located in the area of the above county.

Table 1
Number of hotel companies and structure of the basic set and sample

Size of the hotel company	Basic set		Sample	
	Number of companies	% of companies	Number of companies	% of companies
Small (1 or more employees)	33	64,71	20	62,50
Medium	17	33,33	11	34,38
Large	1	1,96	1	3,13
TOTAL	51	100,00	32	100,00

Source: Made by authors

Companies are classified as small hotel enterprises with up to 50 employees, medium hotel enterprises with from 51 to 250 employees and large hotel enterprises with more than 250 employees. A sample of 32 hotel companies was defined by random selection from the predefined basic set, accounting for 62.75% hotel enterprises from the basic set. The questionnaire was distributed to e-mail address of selected hotel companies that duly filled it out. The software suite IBM SPSS Statistics 20 was used for data processing. The data used in the study were related to the year 2013.

² Croatian Chamber of Economy, http://www1.biznet.hr/HgkWeb/do/extlogon?lang=hr_HR, [accessed 6.6.2014]

³ According to National Classification of Activities from 2007 of Croatian Bureau of Statistics

3.2. Survey results

Survey results showed that, out of the total number of enterprises that have filled out the questionnaire, 62.5% hotel companies use outsourcing, while 37.5% do not use it. Out of the total number of companies that do not use outsourcing, 16.67% of hotel companies stopped using outsourcing, 25% intend to start using it, while 58.33% of hotel companies do not intend to start using outsourcing.

Table 2

Application of outsourcing in hotel companies in DNC

Application of outsourcing

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes, presently we use it	20	62,500	62,500	62,50
No, we stopped using it	2	6,250	6,250	68,75
Valid No, but we intend to use it	3	9,375	9,375	78,125
No, and neither we intend to use it	7	21,875	21,875	100,0
Total	32	100,0	100,0	

Source: Survey results $N=32$

Considering the hotel companies that do not apply outsourcing, it can be concluded that 27.27% of them believe that it is the best to perform all activities within their own company, the same percentage express a concern about jobs of their own staff, 9.10% of them express fear of losing control over transferred activities, 18.18% of them believe that sufficiently high-quality outsourcing partners do not exist in the market, while the same percentage of hotel companies never considered the options of applying outsourcing.

Table 3

Activities that were the subject of outsourcing in hotel companies in DNC

Activity	% of companies
Laundry	31,3%
IT systems	21,9%
Animation	18,8%
Security and surveillance	15,6%
Legal affairs	15,6%
Room cleaning	15,6%
Technical maintenance	12,5%
Cleaning of common premises	12,5%
Accounting	9,4%
Marketing	9,4%
Gardening services	6,3%
Purchasing and delivery	6,3%
Sales	6,3%
Education	6,3%
Restaurants	6,3%
Management	6,3%
Work force	3,1%
Market research	3,1%
Sports and recreation	3,1%
Bars	3,1%
Kitchen work	0,0%
Reception	0,0%

Source: Survey results $N=32$

If operational activities are taken into consideration, it can be concluded that outsourcing is used the most in the activities related to laundry services, IT systems and animation. Activities that are not separated at all are related to kitchen work and reception.

In order to obtain outsourcing levels of individual hotel companies, it was necessary to carry out the procedure of min max normalization,⁴ or divide the number of outsourced activities with the total number of activities. Percentage levels of outsourcing were obtained in the described manner for each individual hotel company. The obtained outsourcing levels were correlated with individual innovation indicators.

A Likert scale of 7 intensity points, indicating innovation levels in hotel companies for each particular indicator, was used to measure innovation indicators. Since innovation indicators are not directly measurable, we conducted

⁴ http://hr.swewe.net/word_show.htm/?54163_1&Normalizacija, [accessed 4.5.2015]

confirmatory factor analysis (Rozga, 2011, p.52) that tested and confirmed agreement of models according to the theoretical concept with the empirical data.

Table 4

Correlation between the total outsourcing levels and innovation of hotel companies in DNC

Correlations

		O1	I1	I2	I3	I4	I5
Spearman's rho	O1						
	Correlation Coefficient	1,000	,228	,334*	,254	,327*	,268
	Sig. (1-tailed)	.	,105	,031	,080	,034	,069
	N	32	32	32	32	32	32
	I1						
	Correlation Coefficient	,228	1,000	,692**	,752**	,832**	,736**
	Sig. (1-tailed)	,105	.	,000	,000	,000	,000
	N	32	32	32	32	32	32
	I2						
	Correlation Coefficient	,334*	,692**	1,000	,714**	,754**	,737**
	Sig. (1-tailed)	,031	,000	.	,000	,000	,000
	N	32	32	32	32	32	32
	I3						
	Correlation Coefficient	,254	,752**	,714**	1,000	,862**	,833**
	Sig. (1-tailed)	,080	,000	,000	.	,000	,000
N	32	32	32	32	32	32	
I4							
Correlation Coefficient	,327*	,832**	,754**	,862**	1,000	,924**	
Sig. (1-tailed)	,034	,000	,000	,000	.	,000	
N	32	32	32	32	32	32	
I5							
Correlation Coefficient	,268	,736**	,737**	,833**	,924**	1,000	
Sig. (1-tailed)	,069	,000	,000	,000	,000	.	
N	32	32	32	32	32	32	

*. Correlation is significant at the 0.05 level (1-tailed).

** . Correlation is significant at the 0.01 level (1-tailed).

Source: Survey results N=32

Spearman's rank correlation coefficient is used to test the influence of the total level of outsourcing of business activities of hotel companies on innovation of hotel companies (Rozga et. al., 2009, p.128). The previous table shows the value of Spearman's rank correlation coefficient between the level of

outsourcing in terms of the number of separated activities in % (O1) and introduction of new services and/or significant improvement of the existing ones (I1), introduction of new technological equipment or software and/or significant improvement of the existing ones (I2), introduction of new methods of service provision or distribution and/or significant improvement of the existing ones (I3), introduction of new organizational methods and/or significant improvement of the existing ones (I4), introduction of a new design and decoration of the hotel and/or significant improvement of the existing ones (I5). The results show that there is a positive and statistically significant correlation between the level of outsourcing of business activities of hotel companies and innovation of hotel companies measured by all company innovation variables at a significance level of 10%, except between the level of outsourcing and introduction of new services and/or significant improvement of the existing ones, which slightly exceeds the significance level of 10%. **This confirms the hypothesis H1 that says: Hotel enterprises that have a higher level of outsourcing have a higher level of innovativeness.**

Chi-square test is used to examine if there is a statistically significant difference in characteristics of hotel enterprises with respect to application of outsourcing. An overview of individual relations between application of outsourcing and individual characteristics of hotel companies is given in the following.

Table 5

Relation between application of outsourcing and age of hotel companies in DNC

Application of outsourcing 1 * Age of company Crosstabulation

		Age of company		Total
		Up to 15 years	More than 15 years	
Application of outsourcing 1	No	8	4	12
	Yes	7	13	20
Total		15	17	32

Source: Survey results $N=32$

The previous table shows the relation between application of outsourcing (AO1) and age of company (AC) with respect to the number of hotel companies.

Table 6

Chi-square test of application of outsourcing and age of hotel companies in DNC

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3,020 ^a	1	,082		
Continuity Correction ^b	1,882	1	,170		
Likelihood Ratio	3,062	1	,080		
Fisher's Exact Test				,144	,085
Linear-by-Linear Association	2,926	1	,087		
N of Valid Cases	32				

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 5,63.

b. Computed only for a 2x2 table

Source: Survey results N=32

The results of chi-square test show that there is a statistically significant difference in application of outsourcing between hotel companies with respect to age of company at a significance level of 10%.

Table 7

Relation between application of outsourcing and size of hotel companies in DNC

Application of outsourcing 1 * Size of company Crosstabulation

		Size of company		Total
		Up to 100 employees	More than 100 employees	
Application of outsourcing 1	No	5	7	12
	Yes	18	2	20
Total		23	9	32

Source: Survey results N=32

The previous table shows the relation between application of outsourcing (AO1) and size of company (SC) with respect to the number of hotel companies.

Table 8

Chi-square test of application of outsourcing and size of hotel companies in DNC

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8,667 ^a	1	,003		
Continuity Correction ^b	6,441	1	,011		
Likelihood Ratio	8,720	1	,003		
Fisher's Exact Test				,006	,006
Linear-by-Linear Association	8,396	1	,004		
N of Valid Cases	32				

a. 1 cells (25,0%) have expected count less than 5. The minimum expected count is 3,38.

b. Computed only for a 2x2 table

Source: Survey results N=32

The results of chi-square test show that there is a statistically significant difference in application of outsourcing between hotel companies with respect to size of company at a significance level of 1%.

Table 9

Relation between application of outsourcing and legal form of hotel companies in DNC

Application of outsourcing 1 * Legal form of company Crosstabulation

		Legal form of company		Total
		Limited liability company	Joint stock company	
Application of outsourcing 1	No	9	3	12
	Yes	9	11	20
Total		18	14	32

Source: Survey results N=32

The previous table shows the relation between application of outsourcing (AO1) and legal form of the company (LF) with respect to the number of hotel companies.

Table 10

Chi-square test of application of outsourcing and legal form of hotel companies in DNC

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2,743 ^a	1	,098		
Continuity Correction ^b	1,659	1	,198		
Likelihood Ratio	2,839	1	,092		
Fisher's Exact Test				,147	,098
Linear-by-Linear Association	2,657	1	,103		
N of Valid Cases	32				

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 5,25.

b. Computed only for a 2x2 table

Source: Survey results N=32

The results of chi-square test show that there is a statistically significant difference in application of outsourcing between hotel companies with respect to legal form of company at a significance level of 10%.

Table 11

Relation between application of outsourcing and ownership structure of hotel companies in DNC

**Application of outsourcing 1 * Ownership structure of company
Crosstabulation**

		Ownership structure of company		Total
		Domestic	Foreign	
Application of outsourcing 1	No	6	6	12
	Yes	18	2	20
Total		24	8	32

Source: Survey results N=32

The previous table shows the relation between application of outsourcing (AO1) and ownership structure of company (OS) with respect to the number of hotel companies.

Table 12

Chi-square test of application of outsourcing and ownership structure of hotel companies in DNC

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6,400 ^a	1	,011		
Continuity Correction ^b	4,444	1	,035		
Likelihood Ratio	6,351	1	,012		
Fisher's Exact Test				,030	,018
Linear-by-Linear Association	6,200	1	,013		
N of Valid Cases	32				

a. 1 cells (25,0%) have expected count less than 5. The minimum expected count is 3,00.

b. Computed only for a 2x2 table

Source: Survey results $N=32$

The results of chi-square test show that there is a statistically significant difference in application of outsourcing between hotel companies with respect to ownership structure of company at a significance level of 5%.

Table 13

Relation between application of outsourcing and number of seasonal employees of hotel companies in DNC

**Application of outsourcing 1 * Number of seasonal employees
Crosstabulation**

		Number of seasonal employees		Total
		Up to 30	More than 30	
Application of outsourcing	No	6	6	12
	Yes	11	9	20
Total		17	15	32

Source: Survey results $N=32$

The previous table shows the relation between application of outsourcing (AO1) and number of seasonal employees (NSE) with respect to the number of hotel companies.

Table 14

Chi-square test of application of outsourcing and number of seasonal employees of hotel companies in DNC

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	,075 ^a	1	,784		
Continuity Correction ^b	,000	1	1,000		
Likelihood Ratio	,075	1	,784		
Fisher's Exact Test				1,000	,536
Linear-by-Linear Association	,073	1	,787		
N of Valid Cases	32				

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 5,63.

b. Computed only for a 2x2 table

Source: Survey results N=32

The results of chi-square test show that there is no statistically significant difference in application of outsourcing between hotel companies with respect to number of seasonal employees.

In keeping with the above results, it is possible to make the following judgment of the hypothesis. **We confirm the hypothesis H2, which says: Hotel companies that use outsourcing are different from the hotel companies that do not use outsourcing in basic characteristics.**

CONCLUSION

Since the hotel sector records continuous growth in overnight stays and as such represents one of the most important factors of tourism industry, it is necessary to point out the possibilities of improving business through the application of outsourcing as a strategic tool. In addition to numerous advantages that outsourcing brings, it should be emphasized that the conducted research proved that an increase in the level of outsourcing is directly related to an increase in the level of innovation, or that outsourcing contributes to production, technological, process, organizational and marketing innovations in hotel enterprises. Consequently, it can be concluded that outsourcing contributes to the introduction of new or improvement of the existing technological equipment of hotel companies, leads to improved organizational methods of business operations and new methods of providing services, and helps raise the reputation of hotel enterprises. Although the influence of outsourcing on production

innovations stood just over the limit of statistical significance, the limit can not be clearly set and it can be concluded that outsourcing has the least influence on production innovations that involve introduction of new products and services in the business of hotel enterprises. The above is set as the logical conclusion that can be explained by the fact that separation of secondary business activities aims to separate those activities that do not have a direct contact with guests, i.e. that such activities do not generate the final product or service, which external contractors directly offer to guests. If we analyze the business activities that are separated the most, it can be concluded that activities concerning the direct supply of products and services to guests are separated in rare cases (except for activities related to animation of guests). Examining the characteristics of hotel enterprises and correlating them with outsourcing, we can conclude that the typical hotel companies that apply outsourcing are older than 15 years and have up to 100 permanent employees. It is interesting to point out that the trend of separating individual activities in larger hotel enterprises is reverse. The hotel enterprises that apply outsourcing to a greater extent run business as domestically-owned joint stock companies. The situation with foreign-owned hotel enterprises is the opposite. Considering the number of seasonal employees, it can be concluded that there is no statistically significant difference in application of outsourcing between hotel companies. Observing the relevant literature it can be concluded that the introduction of new products and services linked to the type of communication and presentation which directly affects business results. Also, research shows that the introduction of new information technologies was the most beneficial and had an impact on the future performance of hotel companies.

As one of the possible limitations of the research, it is possible to specify the time frame, which is limited to one year. Outsourcing represents a dynamic process that most often refers to a period of several years, and should be considered as such in order to bring out a more realistic picture on the influence on particular business segments of hotel enterprises. As a limitation, it is necessary to consider the external and internal environment of hotel companies that affect the application of outsourcing in an area, in this case the area of a county.

Future research should be based on studying outsourcing in the context of comparison of different business activities in order to get a clearer picture of application of outsourcing in the economy in general. What should also be explored is the dynamic character of outsourcing involving monitoring of the said phenomenon through a longer period of time, and which has a significant role in creating strategies of hotel enterprises. It is recommended to analyze characteristics of hotel enterprises in even more detail so as to include in the research the largest possible number of indicators that will ultimately generate a model of hotel company with respect to application of outsourcing.

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REGIONAL COMPETITIVENESS

JEL classification: R11

Abstract

Individual city and regional authorities in many countries have themselves taken up the issue of “competitiveness” as part of their own economic development agendas: competitiveness has come to be regarded as critical for understanding and promoting local economic performance. Like their national counterparts, regional and city policy-makers have become preoccupied with knowing the relative competitive standing of their local economies compared with others, not just other regions and cities within their own national jurisdiction, but with areas elsewhere across the globe. Devising local strategies to improve the competitiveness of their locality is now regarded as a primary task by many regional and city policy-makers.

Key words: competitiveness, clusters, comparative advantage

1. INTRODUCTION

Three sets of influences might be identified as explaining why the idea of regional competitiveness has recently assumed such importance in policy circles.

The first has to do with the general discourse around globalisation. The argument, propounded by governments, policy-makers, and academics of all political and ideological persuasions, is that globalisation brings with it not only expanding trade but also increasingly intense competition between enterprises, between nations, and between regions and cities over shares of new and existing markets. The economies like Brazil, Russia, India and China are typically portrayed as seriously challenging the economies of the old advanced nations, not only in traditional export markets but also as prospective competitors in an increasing array of high-value and high-technology activities. No nation, no region, no city, it is argued, is immune from the implications of the new global competition.

A second factor has been growth of regions and cities themselves as arenas of economic policy intervention and economic governance. The policy emphasis on the supply-side over the past two decades or so has led states to argue that many economic supply-side frictions, inflexibilities, and barriers to national growth originate at the local level and are therefore best addressed at that scale. There has been a demand, therefore, for expert knowledge on how to measure and promote local competitiveness. One inevitable trend this has spawned is the compilation of regional competitiveness indexes, league tables, and the desire for benchmarking.

Third, if the rise of regional competitiveness talk in policy circles has been bound up with the discourse around globalisation, it has been equally influenced by the writings of key academics. Despite the fact that there has been, and continues to be, academic debate about what, precisely, is meant by the notion of regional competitiveness within policy circles, if there is a dominant view on this concept it is Porter's cluster model, and the particular interpretation and explanation of local and regional competitiveness he uses that model to promote. Over the past two decades, Porter more than anyone else has championed a whole new policy and consultancy industry concerned with measuring and promoting competition advantage.

Porter's notion of the cluster is central to his view about the nature and drivers of competitiveness. In fact, the two concepts are inextricably interlinked in his work and policy advice: it is the geographical clustering of related enterprises that creates various localised external increasing-returns effects that in turn improve the competitiveness of the enterprises concerned compared to their non-clustered counterparts. Clustering is thus claimed to be a key source of competitive advantage both for the enterprises involved and for the region where the cluster is located: cluster and their promotion are key to regional competitiveness.

2. THE IMPACT OF CLUSTERING ON COMPETITIVE PERFORMANCE OF ENTERPRISES

The underlying assumption of Porter's cluster model is that clustering enhances innovation, innovation enhances productivity, and higher productivity improves enterprise performance.

Cluster studies have tended to focus on case studies of innovative regional clusters, typically, highly successful ones. While such studies sometimes compare the performance of one such cluster with another, such as Silicon Valley and Route 128 (Saxenian, 1994, p. 67), they rarely compare enterprises in these clusters with similar unclustered enterprises, nor whether significant variations in competitive performance exist across enterprises within the same cluster. Further, the relevance of anecdotal evidence from these specific, typically self-contained, and rather distinctive clusters for a general discussion on the importance of local and regional conditions for the competitiveness of enterprises can be questioned (Lundquist and Olander, 1999, p. 148). Martin and Sunley (2003, p. 21) observed that the evidence for the beneficial effects of clustering on enterprise performance was patchy, mixed, and inconsistent. Despite the increasing diffusion of cluster ideas and the proliferation of cluster strategies, the growing research into clusters and enterprise performance has confirmed rather than undermined this observation. Research has produced a variable and mixed set of findings about whether innovation, productivity, and growth tend to be higher within, as against outside, clusters. While a number of cases of particular clusters have tended to be broadly supportive of the effects envisaged by Porter, more extensive comparative work has found little strong support for the claim that clustering demonstrably raises enterprise performance.

The importance cause of the absence of a clear universal relationship between clusters, enterprise performance, and innovation is that the consequences of clusters are not static but alter as the clusters and their constituent enterprises, industries, and institutions evolve. It is now widely recognized that while clustering may reinforce growth in the early stages of an industry, it can conversely lead to and reinforce decline during the mature and later stages of an industry's development, due to congestion and competition effects (Braunerhjelm and Carlsson, 1999, p. 284). Rocha's (2004, p. 391) comprehensive review of the relations between clustering and entrepreneurship cautiously concludes that it is difficult to generalise: "In effect, both positive results and caveats are found at different levels of analysis and at different stages of development of a cluster". The existing literature includes several examples where clustering produces beneficial effects, especially for young enterprises and new entrants in knowledge-intensive industries and producer services (Wennberg and Lindqvist, 2010, p. 232). Gilbert et al. (2008, p. 411) find that clustering boosts the innovation performance of weaker young enterprises.

Ultimately, of course, the source of a enterprise's competitive advantage lies in its dynamic capabilities or organisational processes that create, integrate, recombine, and release (Eisenhardt and Martin, 2000; Ambrosini and Bowman, 2009). Without such capabilities, enterprises are likely to enjoy only a short-term

competitive advantage and will fail to respond to their constantly changing environments. Such capabilities are typically shaped both by internal processes, such as path-dependent learning, management practice, cognition, and strategy, and by external factors, such as business environment and the degree of uncertainty (Ambrosini and Bowman, 2009, p. 33). Clusters are, in effect, one dimension of this external environment which may shape and moderate dynamic capabilities.

While these caveats undoubtedly have some force, the basic point remains, namely, that there is much empirical evidence to question the claim that clustering enhances the competitiveness of enterprises, and hence regions, as there is evidence to support it. Clearly, enterprises co-locate because certain benefits are perceived from doing so, and the local clustering of similar and related enterprises may well facilitate labor hiring, access to specialist supporting enterprises, and perhaps even certain types of knowledge spillover and technological learning. But clustering by itself does not guarantee that such processes will necessarily occur, or, even if they do, that they will necessarily have the alleged beneficial impacts on enterprise performance. As research has made clear, much will depend on the type of industry, the capabilities of the enterprises involved, historical circumstances, the stage of development of the cluster, and a host of other contextual and conjunctural factors. In short, the evidence is mixed, and caution should therefore be exercised when invoking the cluster model to explain or define regional competitiveness. Further, the cluster model perhaps assigns too much importance to the local business context, to local interactions and externalities.

3. THE COMPETITIVENESS OF REGIONS: CLUSTERS OR COMPARATIVE ADVANTAGE?

A region's enterprises may be highly productive, and may enjoy a competitive advantage in their respective industries and markets even though they do not exhibit clustering. On the other hand, a region may have several clusters, but these need not (or need no longer) be competitive, so that the regional economy may suffer from an inferior growth rate or standard of living. In such cases, the cluster model would seem an incomplete conceptualisation of regional competitiveness. Another, and more general, way of conceptualising regional competitiveness is provided by the concept of comparative advantage that originally derives from international trade. Trade is a key aspect when measuring competitiveness.

Porter (1990, p. 12) emphasizes that it is export-orientated clusters that play a particularly important role in determining the competitiveness of locations and regions. He argues that it is not the particular sectors in which a location or region specialises that matter: it is not what a region produces, but how well it produces it, which is where clustering is assumed to play a highly positive role since, the argument goes, clustering improves the efficiency with which a region produces its goods and services.

What it appears to have then is, on the one hand, a comparative advantage theory of regional competitiveness which draws on Ricardian-type factor endowments, and on the other, Porter's cluster theory which has strong links to Smithian and Marshallian – type increasing returns. But does Porter's "alternative" cluster theory actually run counter to notions of comparative advantage? Is it really that different? Much depends on how comparative advantage is interpreted and conceptualised in a regional context. Porter's portrayal of comparative advantage theory is the traditional, static "fixed factor endowments" view; and that is not difficult to criticise. But comparative advantage theory has in fact moved on from the standard Ricardian model that Porter attacks (Maneschi, 2000; Redding, 1999; Krugman, 2009).

The increasing-returns effects arising from industrial localisation within a nation give that nation a comparative advantage in the industry concerned. As an extension of this thinking to a regional context, Krugman has placed considerable emphasis on these externalities as a driver of what he now acknowledges as regional competitiveness: "An industry or cluster of industries generates spillovers, which reinforces that industry's local advantage, or in some cases spillovers to other industries, which are thereby encouraged to locate in a particular region" (Krugman, 2005, p. 39). Clearly, clusters are one form that such industrial localisation may take.

The basic point is that if a wider view is taken of endowments or resources, and learning, technology, and a region's externalities and fundamentals are included in those resources, the idea of comparative advantage takes on renewed relevance in discussion of regional competitiveness. Furthermore, it becomes a dynamic concept. In his cluster theory Porter puts great store on innovation and upgrading as key to maintaining the competitiveness of enterprises, of clusters, and thus of regions, over time. A dynamic, resource-based notion of comparative advantage has a similar emphasis. What is essential to dynamic regional comparative advantage is adaptation to constantly changing markets, competition, and technology. How well enterprises adapt to the ever-shifting threats and opportunities that arise in the global economy determines whether they remain competitive in their respective industries. In terms of a regional economy as a whole, adaptation takes on a further dimension, not only in relation to the ability of its enterprises, clusters, and industries to adapt to changing market conditions and opportunities, so as to maintain their competitiveness, but also in relation to how well the economy is able to develop new productive industries, sectors, and technologies of activity over time; that is, how well it adapts its economic structure. Comparative advantage is an evolving feature of a regional economy, and adaptation is the key to its maintenance over the long term.

What all of this suggests is more general conception of regional competitiveness than that provided by the cluster model – possibly of the sort illustrated in Figure 1.

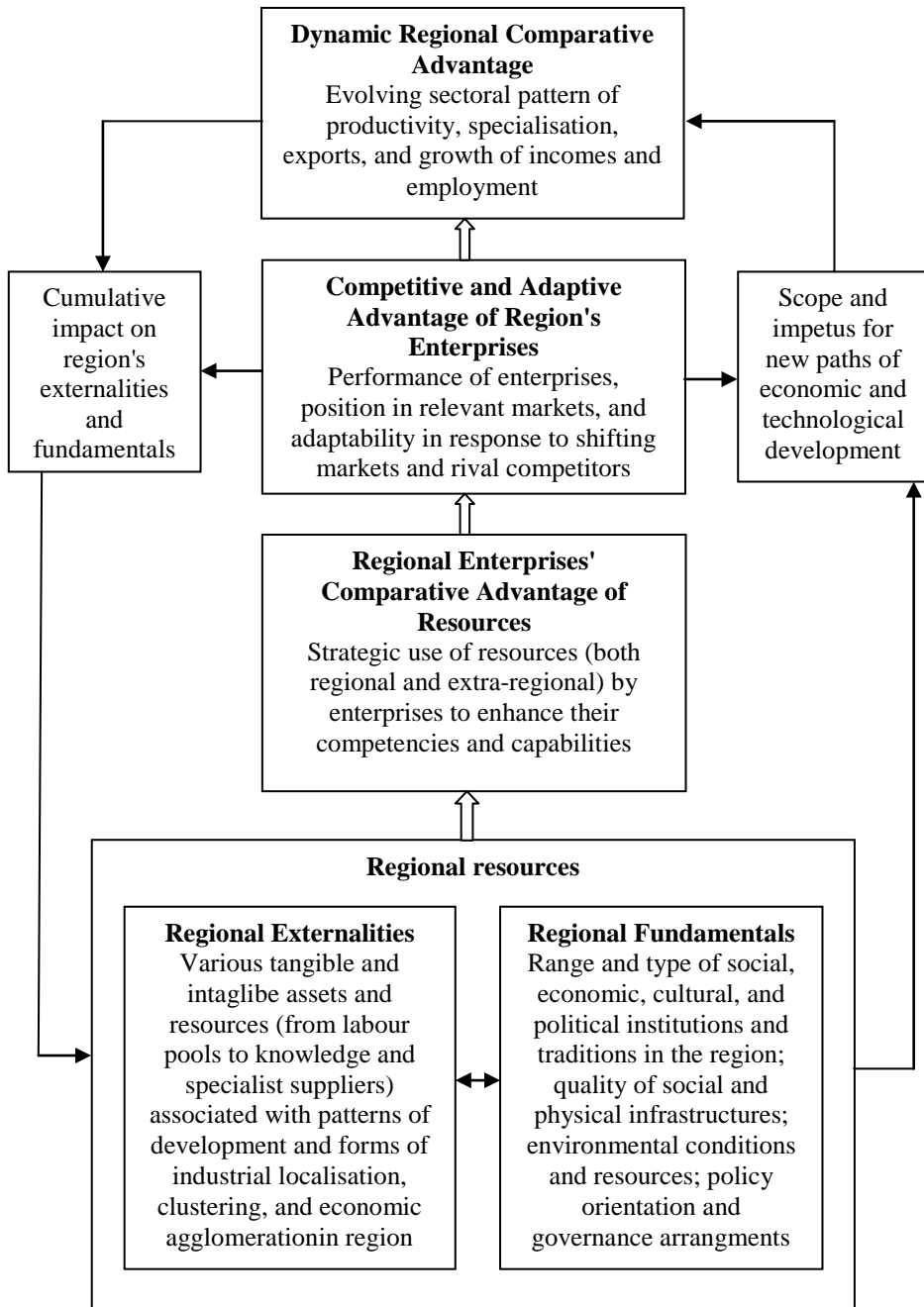


Figure 1. Model of regional competitiveness

A region's resources afford location-specific comparative advantage (or disadvantage) to a region's enterprises. How enterprises draw on and deploy these resources, in combination with their own internal resources, influences their competencies and capabilities, and thence their productivity, innovation, and competitive advantage in the markets and export sectors for which they produce and in which they compete. Since market conditions are constantly evolving, the competitive advantage of a region's enterprises will also depend on how well they adapt to these shifting conditions.

At the regional scale, the outcome will be a particular pattern of inter-enterprise and inter-sectoral competitive advantage that represents the comparative advantage of the region relative to other regions. This particular pattern is not static, however, but evolves over time as the competitive advantage and adaptability of its enterprises change. Further, the region's resources and the changing competitive fortunes of the region's enterprises together influence the scope and impetus for the emergence of new paths of industrial and technological development which may form the basis of new forms of regional comparative advantage. At the same time, the region-wide pattern of economic development, specialisation, and comparative advantage can be expected to feed back on the region's resources (both externalities and fundamentals): either to reinforce existing resources, characteristics, and assets, or to reshape them. Regional competitiveness, then, is a dynamic, co-evolutionary process, involving both elements of continuity (and path dependence) and elements of change and adaptation.

The model in Figure 1. does not depend on the presence of clusters, as other forms of economic agglomeration and spatial organisation can also give rise to favorable externalities on which a region's enterprises can draw. And a region's fundamentals may be more important than its externalities for the competitiveness of local enterprises. But neither does this conception rule out clusters nor deny that they may play a key role clusters play in shaping the competitiveness of a region's enterprises is a matter for empirical enquiry, not theoretical presumption.

4. CONCLUSION AND IMPLICATIONS

The comparative advantage theory is dynamic, not static. It recognises that enterprises are constantly having to upgrade and reconfigure their competitive advantage in the face of changing market and competitive conditions. How this is achieved, and the extent to which is accomplished, will vary from enterprise to enterprise, even in the same industry, and is shaped by the external resources available to enterprises in the region in which they are located: geography matters. To our way of thinking, the idea of regional dynamic comparative advantage is more general than Porter's cluster model, and subsumes the latter.

It is inevitable that cluster initiatives will support some industries and not others (Hospers et al., 2009, p. 291). Porter and his associates have strongly denied this and argued that cluster policies should support all clusters: "In cluster theory, all clusters can improve productivity and deserve attention" (Porter 1998, p.12). Porter insists that policy should not seek to build and construct clusters in a top-down fashion. Ketels adds that the selection of clusters should be pragmatic and respond to those clusters that want to engage with public authorities. But in the absence of clear definitions of when a spatial collection of enterprises has sufficient critical mass, proximity, and interrelatedness to represent a cluster, the exhortation to support those clusters that are seeking policy help seems to be an inconclusive and risky policy recommendation.

The importance of comparative advantage means that any decision to support a cluster must take into account several key issues, including whether the cluster is based on the use of resources that the region in question can provide efficiently, whether the cluster can adapt and compensate by exploiting other resources, and how the development of the cluster will alter those resources through feedback effects.

In our view, clusters are the best only one element of policies intended to promote and enhance regional competitiveness. As we have noted, the implication of the interpretation of regional competitiveness we have adopted here is that any targeted measures designed to foster clusters should be set in the context of measures designed to strengthen regional externalities and fundamentals. There are many forms of external dynamic advantage that do not depend on the presence of clusters, and there are no grounds for attaching lower priority to these. Equally, regional fundamentals have a critical role in shaping economic development. What this means is that cluster initiatives by themselves are unlikely to provide a comprehensive means of improving the institutional and organisational contexts for regional competitiveness. The importance of regional fundamentals and externalities in dynamic comparative advantage means that regional policy has to seek more comprehensive and holistic measures that shape the business and knowledge environment for the whole regional economy and not just for those enterprises recognised as being located in clusters. And above all, given the regional competitiveness is a dynamic process, not a static state of affairs, the regional policy task is essentially about promoting, enhancing, and fostering adaptation.

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THE CONCEPT OF LIFELONG LEARNING AND THE ROLE OF HIGHER EDUCATION ORGANIZATIONS

JEL classification: I20, I29

Abstract

In the past few years, it has been widely accepted that change is the only constant of modern world. In that sense, the process of globalization has had a significant impact on the contemporary society, as well as on the modern business world. A significant shift of core concepts in technological, social, political and economic subsystems has been the determinant of the 21st century accompanied with organizations transforming through the means of the lifelong learning (hereafter LLL) model. It is also a known fact that human capital is crucial for success in the global market competition, and thus it represents the main competitive advantage of propelling societies. The concept of learning organizations and LLL model are the key components of the new paradigm of the management development. The transformation of organizations, society and economy in the era of knowledge is closely tied to educational organizations as one of the pillars. Education is essential for every society and individual since it creates new and improves current value system in order to improve life of every member of society. All higher educational organizations are established to enable an individual to realize his/hers highest goals. The aforementioned changes are also mirrored in the field of education, and are especially true for higher education organizations, which due to their scope, activities, but also their missions, require a business oriented way of thinking and operating. In other words, concepts of strategy and business have to become a part of their modus operandi. Nowadays, the learning process never ends because it is progressive and dynamic as one's skills and potentials are constantly being improved through formal and informal education. The LLL model is bigger than formal education system; it is a concept of strategic thinking, tactic acting and operational surviving. Paradoxically this paper shows both the

complexity and simplicity of the LLL model and its application on higher education organizations. The emphasis of the paper is on the fact that today's higher education organizations have to create and implement a quality management system that follows, supports and improves the philosophy of knowledge management.

Key words: knowledge transfer, knowledge society, lifelong learning model, higher education organizations

1. INTRODUCTION

Today's way of living is irrefutably determined with change where leaders of all forms are forcing imperative to build organizational capabilities that support sustainability, flexibility, innovation, continues improvement and well-focused usage of all available resources. In that sense lot of light is being shed on the paradigm change where well-executed human capital development initiatives yield a virtually limitless resources essential in a knowledge-based economy. In March 2000, the Lisbon European Council set the strategic goal for Europe to become the most competitive and dynamic knowledge-based economy in the world by the 2010, capable of sustainable economic growth with more and better jobs and greater social cohesion and furthermore, the Heads of State in their conclusions in Lisbon emphasized the central role of education and training in responding to the challenges of such an objective and invited the Ministers of Education to agree upon concrete objectives for education and training systems. As stated at the begging of this article organizations operate in an environment that is not only changing rapidly but is subject to many discontinuities that are mainly caused by financial crises and political unrest (Hamel, 2007, 6).

At the same time, and in certain discrepancy to the aforementioned ideas, knowledge management (hereafter KM) and the concept of lifelong learning (hereafter LLL) are still more of a phenomenon rather than an implemented and highly used tool of management practice. When talking about aspects of change, one has to emphasize that the process of transformation and redefinition involves every aspect of society, introducing whole new approach in working, living and doing. These new models are, naturally, very different from those of 20 or 100 years ago. The Information age, associated also with the Digital Revolution, has new settings, values and principles. In the centre of its interest lies knowledge in all of its aspects and forms. Within business and KM, two types of knowledge are usually defined, namely explicit and tacit knowledge. The former refers to codified knowledge, such as that found in documents, while the latter refers to non-codified and often personal/experience-based knowledge.

Knowledge is often associated with the concept of education, and nowadays, in particular, that concept constantly grows, seeking new, additional values, forms and finally ways of application. However, the role of educational

institutions, accompanied and underpinned with modern communication technologies is setting new relationships within the market in relation to workforce and current technological progress. At the same time, high demands for excellence are constantly pushing individuals and organizations further and stronger in many various ways regarding their professional and personal development.

2. ABOUT KNOWLEDGE AND KNOWLEDGE MANAGEMENT

Many of these changes and challenges have portrayed the role of KM increasingly important for organizations' sustainability and competitiveness (Quintas, Lefrere, and Jones, 1997, 385; Valkokari and Helander, 2007, 597; Salo, 2009, 95; Pasha and Pasha, 2012, 10). Knowledge is the most sought-after commodity at present, the foundation of competitive advantage and the source of predominance over competition. There are numerous definitions of knowledge and an entire jungle of KM theories. Jelkić (2011, 261) analyses different philosophical and scientific concepts of knowledge and concludes that the demand for "orientational knowledge" corresponds with the new epoch and bioethical perspective.

Knowledge builds on information and embodies a person's prior understanding experience and learning (Boddy, 2011, 633). Defined by Klaus (2008, 39), knowledge is the totality of knowledge and skills that people apply to solve problems. Knowledge comes from the intellect during work. It is the totality of everything that has been learned, or concluded. Knowledge is formed by a mixture of experience, values, related information and expert opinions providing a framework for the evaluation and including new experiences and information (Đula, 2010, 226). Also, knowledge is a complex and multidimensional term, while KM is rather a new phenomenon. Thus, understanding the different forms that knowledge can exist in, and thereby being able to distinguish between various types of knowledge, is an essential step for KM.

KM and organizational learning theory nearly always take root in the interaction and relationship between these two types of knowledge. This concept has been introduced and developed by Nonaka in the 90's (e.g. Nonaka et al, 1998, 673-684) and remains a theoretical cornerstone of the discipline. Botha et al (2008) point out that tacit and explicit knowledge should be viewed as a spectrum rather than as definitive points. Therefore in practice, all knowledge is a mixture of tacit and explicit elements (Frost, 2013).

We have already stated that two types of knowledge, explicit and tacit, are usually recognized and defined. However, some researchers make a further distinction and talk about embedded knowledge. Embedded knowledge refers to the knowledge that is locked in processes, products, culture, routines, artefacts or

structures (Gamble and Blackwell, 2001). Knowledge is embedded either formally, such as through a management initiative to formalize a certain beneficent routine, or informally as the organization uses and enforces the other two types of knowledge.

According to Frost (2013), the challenges in managing embedded knowledge vary considerably and will often differ from tacit knowledge. Culture and routines can both be difficult to understand and hard to change. Formalized routines on the other hand may be easier to implement and management can actively try to embed the fruits of lessons learned directly into procedures, routines, and products. ITs role in this context is somewhat limited but it does have some useful applications. Broadly speaking, IT can be used to help map organizational knowledge areas; as a tool in reverse engineering of products (thus trying to uncover hidden embedded knowledge); or as a supporting mechanism for processes and cultures. However, it has also been argued that IT can have a disruptive influence on culture and processes, particularly if implemented improperly (Frost, 2013). Due to the difficulty in effectively managing embedded knowledge, firms that succeed may enjoy a significant competitive advantage.

Philosophy of knowledge is involved in organizations and nations, while economy and individuals are significantly determined by the knowledge society (Marić et. al., 2012). Bahtijarević - Šiber et al. (2008, 596) consider knowledge the most important resource of the organization and they define it a corporate asset, without which it would be difficult to survive in the market, let alone gain competitive advantage. Furthermore, in the means of strategy and competitiveness, it is clear that knowledge represents a valuable, rare, inimitable and non-substitutable resource, which is increased and improved through, transfer and dissemination within the organization

Organizational knowledge has to be successfully guided by the management, and Growth and survival for the modern organization means balancing between creating organizational knowledge and implementing good KM practices. Bratić (2009: p. 46) defined KM as a type of management that identifies, collects, creates, adapts, represents and distributes all the knowledge and skills that the company has, either from external sources or business experience.

Many questions arise in the domain of KM: some of the most important being what type of knowledge is used and how, which type of organizational knowledge is the company going to use in the future, and finally how to use and manage organizational knowledge with success. Dimensions that need to be considered in the context of KM and their characteristics are: (1) acquiring knowledge, (2) knowledge development, (3) knowledge transfer, and (4) learning. The domain of knowledge is largely described and analysed by Klaus (2008).

Table 1

Knowledge management goals and tasks

The goal	The task
Acquiring knowledge	To secure the required knowledge for business development and processes
Knowledge development	To secure knowledge management at the most appropriate place inside and outside the company
Knowledge transfer	To secure optimal utilization of knowledge
Learning	To secure ability to learn for the company and employees
Further knowledge development	To secure knowledge actualization compatible with the application, the further development and updating and obliterating of outdated

Source: Klaus, N. (2008). *Upravljanje znanjem: vođenje poduzeća usmjereno prema znanju, Jastrebarsko*,: Naklada Slap, p. 4

3. CONCEPT OF LIFELONG LEARNING AND EDUCATION ORGANIZATIONS

Truly great universities are one of society's greatest assets (Adler, Harzing, 2009, 72). Humans are, in their nature, social beings who interact with other individuals, and who grow continuously developing their knowledge regarding the world in accordance with one's mind set. Due to the complexity of our surrounding and the fact that vital resources are scarce, people must change, adapt, and constantly learn more than ever before. The imperative of today is to learn more and more outside the formal education institutions, but the fact is that the basic education system is *condition sine qua on* for the development of the individual and the society as a whole.

Drucker (2005) claims that continuing education for highly educated adults will become a large and important field of development in the new society. Indeed, the knowledge workers need to enable the development of their potential through programs tailored to the individual needs and various organizational requirements differing between sectors and industries. Kuka (2012, 47) defined the modern organization as a learning organization, based on all different types of available information and innovation. Rupčić (2002, 909) highlights that "a learning organization is a type of organizational culture in which the encouragement of employees for individual development and learning is aimed at engaging and maximizing the contribution of each employee in achieve organizational goals. The idea of shared learning and application of knowledge in

adapting to change has resulted in the term "enterprise as a family" which represents a synonym for organizational learning".

Pastuović (2006, 422) points out that the concept of LLL is closely linked to the concept of a learning society and the concept of "knowledge society" further, claims that learning must be a lifetime process. Given the fact that enrolling into different school programs is not always possible through a whole lifetime gaining knowledge and learning has to become available outside the school system *per se*, and it has to be available to all people regardless of their previous education and business rank. In other words, the concept of LLL has to enable meaningful education harmonized with one's professional and personal life. Thus, LLL is defined by EU Commission (2002) as all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment, and related perspectives. Dave (1976, 10-35) defined LLL as term that covers all formal and informal forms of education that integrate and articulate all the structures and stages of education along the vertical and horizontal dimensions of society. It is also characterized by its flexibility in terms of time, space, content, methods of learning and therefore requires self-directed learning, sharing one's enlightenment with others and accepting different styles and learning strategies. Savićević (2006) considers the merits and standards, particularly UNESCO's, which are aimed at accepting and fostering the concept of LLL, and points that a significant number of countries have reformed their systems of education according to this concept, passed legislation aimed at overcoming the traditional rigidity of the formal education system and gave access to education to all people regardless their age and social class.

When looking at the situation in Croatia, the general attitude towards LLL and the development and improvement of skills in the workforce is especially worrying. The percentage of employees aged 18-24 in Croatia involved in education and training is 5.9% (2011), which is about only 17% of the EU-27 average, which amounts to 35.8%. According to the Croatian bureau of statistics, of all people employed in the country, only 2.3% are involved in lifelong learning programs, which is well below the EU-27 average of 8.9% (www.dzs.hr/Hrv_Eng/CroInFig/croinfig_2012.pdf). The given information raises questions and doubts regarding the competencies of the existing educational institutions, as well as their ability to adapt and develop new skills/competencies, e.g. e-skills needed in the new digital society. If such skills and competencies are not being developed, can there be word of knowledge workers? Furthermore, we have to seriously consider how globalization and KM, as inevitable drivers of change, will shape and affect the current system of high education in Croatia. The figures in this section further reinforce doubts.

The figures from 2011 show in that year 49,586 pupils graduated from elementary schools, and 42,669 pupils graduated from secondary schools. In terms of high education, (ISCED 5), 11,153 students finished professional study programs and 25,335 students graduated from university studies

(www.dzs.hr/Hrv_Eng/CroInFig/croinfig_2012.pdf). If we take into account the fact that Croatia found itself in an unenviable position to adapt to the EU and to cope with the increased competition, particularly in terms of labor market, we can agree with Pološki Vokić and Grizelj (2008, 853) who point out that education and development is an essential requirement for modern organizations and people creating them.

4. CROATIA AND THE CONCEPT OF KNOWLEDGE MANAGEMENT

According to the mid-2012 estimates, the Republic of Croatia has 4,267,558 inhabitants, and an alarmingly high rate of unemployment of 18,5% (http://www.dzs.hr/Hrv/system/first_results.htm). The latest report on global competitiveness puts Croatia on the 81st place of 144 countries included in the survey. The national position is somewhat better regarding the dimensions of innovation, where Croatia stands as the 74th country (www.minpo.hr/UserDocsImages/STRATEGIJA%20RAZVOJA%20PODUZETNI%20C5%A0TVA_PRVI%20NACRT_06%2003%202013_javna%20rasprava.pdf).

Innovations play significant role in the process of creating knowledge, so advanced, technologically oriented and relatively rich (in terms of GDP and GDP *per capita*) organizations and nations are dominant in the field. Croatia is considered to be a "moderate innovator" which is proved and supported with the information that Croatia takes the 25th place from all 34th European countries in terms of innovation performance: 44% of all companies in Croatia are classified as innovation active, while the same figure for the EU-27 is 52%.

According to the data on innovation performance of small businesses in Croatia, 79% of large companies innovate, while only one-third of small businesses were engaged in innovation during the survey period. Barić and Raguž (2010) have made research regarding interactive and complex connections between the society, economy and knowledge in the context of the knowledge society and knowledge based economy. Authors found that, as a nation, we have to deal with different challenges in the domain of education, information and communication infrastructure. They point out that changes are needed to increase the share of the population in some pillars of education, and that we are considerably lagging behind developed countries in the means of the information system, and thus they recommend increased investments in research and development, and improvement of the legal and economic framework.

Jakovac (2012, 9) considers that in today's environment of global market economy, success is possible only when an economy values knowledge and innovation and invests adequate resources in innovation, research and development. Therefore, one of the key assumptions of developing the Croatian economy is creating an entrepreneurial climate and opportunities in the educational system that will encourage and support innovations and social progress.

5. CONCLUSION

In times when knowledge is the only sustainable and constantly evolving resource, it is very important for organizations to be able to learn, develop, adapt, transform and finally create new services and products in order to survive and possibly, consequently, gain competitive advantage. The question of how to promote, measure and reward knowledge creation and scholarly impact is one of the plagues of every higher education organization (Doh, 2009, 70). Modern organizations should continuously improve both their business and educational processes but also encourage employees, customers, associates and other organizations, as well as the whole society, towards positive changes regarding both professional and private aspects of life. Lifelong learning is becoming an unquestionable paradigm and information and knowledge are constantly being transformed into new knowledge expanded and upgraded into new technologies, resulting in innovative application and creating grounds for more new innovations and ideas. Another two important issues regarding knowledge and success is the possibility of successfully managing knowledge in an organizational context and creating and nurturing KM culture determined by: knowledge workers, learning organization and KM. Figure 1 shows the basic dimensions of the knowledge era.

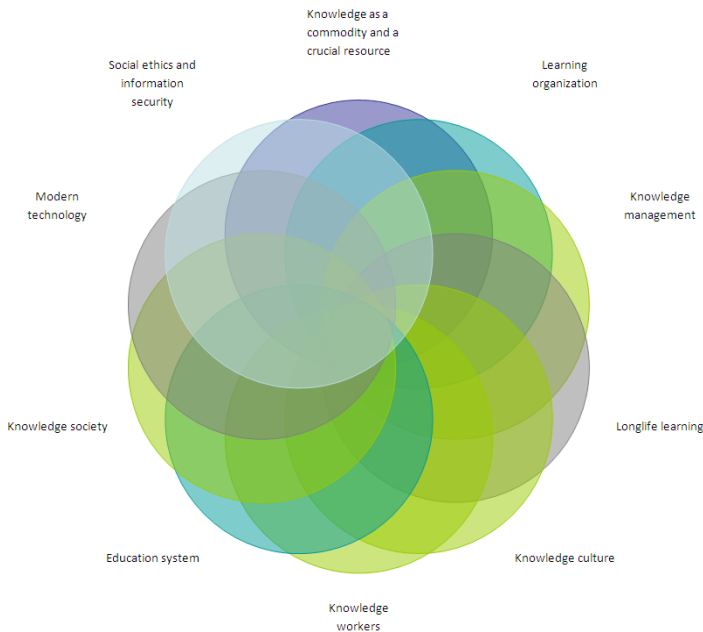


Figure 1 The concept of knowledge era

Source: Author

The first assumption regarding KM and knowledge society is that knowledge is a commodity and a key resource for organizational success, which, in other words means that each organization, in order to succeed, should be a learning organization and therefore use the principles of KM and lifelong learning. Knowledge workers, are by definition, a product of the era of knowledge, so the education system and modern technology have the most significant role in their existence and development. When considering the aforementioned concepts, one must take into account the and at last; there is the questions of social ethics and safety of available information.

One of the important issues in the domain of knowledge that management scholars certainly agree upon is the need to liberate and develop knowledge in the function of organizational goals (Đuričić and Taši, 2009, 1-5). The efficiency of employees within a certain organization should be channelled towards increasing its value and the fulfilment of the organization's mission/objectives. The third dilemma is the relationship between the process of learning and educational institutions, the ways in which the modern technology is replacing the methods of formal education, and how easy and fast access to information may hinder the intellectual development of individuals. The contemporary organizational learning concept can and should be linked to the traditional system of education with respect to the tendencies on the future of higher education. The trend of continuing education in developed countries is well recognized and rising and the organizations are investing significant resources (with regard to the current economic situation and the impact of the global economic crisis) in education, and various training programs.

The last question is related to the social dimension of knowledge, more specific the benefits for individuals, organizations and society in general. How does one improve general knowledge? There are various development options through wider use of information and knowledge and the wise implementation of new technologies. There is also the question whether the acquired knowledge reduces overall social problems such as unemployment, hunger, diseases and war. Today, the well-known syntagma *l'art pour l'art* could be interpreted as *knowledge for knowledge's sake, technology for technology's sake*, presenting the idea that technology and knowledge create progress, but taking into account that the latter are often in service of large corporate profits and interests, without paying attention to corporate social responsibility and the society. Thus, the made conclusions should be viewed through a bioethical paradigm - the possibility to improve the world of knowledge and technology having in mind clear social goals, aiming at better quality of life by enabling education, work opportunities and better health care. Knowledge workers through a learning organization and KM give quality and meaning to new technologies and specific programs and actions, in other words, to every day projects around the world.

In addition, when we talk about the efforts to create a knowledge society we can agree with Barić and Raguž (2010, 57-75) who state that for raising innovation and competitiveness of the Croatian economy, the convergence of

higher education institutions to their immediate environment is needed in order to improve the transfer of knowledge and technology, and it is necessary to strengthen the cooperation between educational institutions, science, government and the economy.

Finally, to meet all of these recommendations it is necessary to build firm and responsible leadership, assure continuous involvement and activities of leading experts, promote of knowledge, redefine the educational system, as well as, to reconsider the current and, quite possibly, build a new system of social values.

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THE ROLE OF NATIONAL CULTURE IN CONTEMPORARY BUSINESS ENVIRONMENT

JEL classification: M10, M16

Abstract

Together with the new millennium, the global economy that is "world without borders" has become an everyday way of modern business. In order to fulfil the task given to them, the employees of around the globe are working together. Modern technology, new ways of communication, technology and information transfer has enabled us that such a business is easy and affordable. The emerging trend of multinational corporations and their increasing power in global economy have led to the fact that we work and communicate globally each day - our business partners, suppliers and customers are located all over the world, and this became our reality. Given the large number of contacts, the successful use of cultural diversity has become an important area of management. Although this area is still emerging, it is an area of vital importance to the management of people and processes in the modern economy; of particular importance to the global managers who work for multinational corporations located in different countries. Not just managers, but all people doing business globally or just communicating globally, should take into account the culture as an aspect of business, and take advantage of all the resources that can international environment provide. The aim of this paper is to show that the understanding of cultural roots of human

behaviour is important not just for managers and management style - it goes beyond it, and reflects its impact on other organizational functions too.

Key words: culture, diversity, management

1. INTRODUCTION

In the context of globalization process and the growth of economic interdependence between countries, national culture is becoming crucial for modern business processes. Best and the most concise way to express the cultural impact on management (Drucker, 2001), is with the statement that what managers do is the same in the whole world, but how they do it can be entirely different. Today, the globalization of business is expanding rapidly and continues to be much researched and discussed (Fischer, 2003.;Clougherty, 2001.). With this global expansion, understanding the impact of national culture on organizational variables becomes a one of the most influential factor in the success or failure of companies doing business globally. For most multinational companies, sensitivity to national differences and ability to develop national variations in the “rules” and ways of operating businesses in different parts of the world may improve the success of these corporations (Ashton, 1984.).

Understanding culture can equip person for the challenges of modern business environment. Nevertheless, recognizing and the importance of cultural differences helps managers understand their international partners and competitors and ultimately helps to improve their managerial skills (Cullen, Praveen, 2005.). However, it is rather difficult to recognize a direct influence of culture on business. Cultural diversity influences many processes in every-day business, and thus it is quite important to manage it adequately in order to get the best results.

2. DEFINITION OF NATIONAL CULTURE

A significant challenge to international business is a successful adaptation of diverse cultures and their impact on daily operations. Such adaptation requires an understanding of culture, cultural diversity, views, stereotypes and values. Thus, in the last few decades there has been increase in interest in this subject, and have in recent years carried out a considerable amount of research related to cultural dimensions and attitudes. These researches have demonstrated the importance of addressing this issue in order to improve business performance.

There is unanimity among scientists and business people about the importance of national culture (Bazerman, Tenbrunsel, 2011; Wright, Drewery, 2006). However, this cannot be said for the definition of national culture. Different authors from completely different scientific fields are trying to define culture by starting off from different levels and forms (Fisher, Poortinga, 2012). Culture is the shared values and beliefs that enable its members understand their roles and norms of the organization (Hodgetts, Luthans & Doh, 2006). The word derives from the Latin “cultura”, which refers to a cult or an object of worship. In a broader sense, the term refers to the results of human interaction. Anthropologists see culture in many ways. One of the most widely used definition of culture is (Kluckhohn, 1951): "Culture consists of explicit and implicit patterns, and behaviours acquired and transmitted symbols, which form the characteristic achievement group of people, including embodiments in artefacts; essential core of culture consists of traditional ideas and especially their values added; system of culture on the one hand can see as a product of action, on the other hand, as conditional elements of future action. Culture can be defined as a general pattern of behaviour, based on the values and beliefs that develop over time in a given society (Bahtijarevic-Siber, Sikavica, 2001). These are common knowledge, beliefs, values, norms of behaviour and ways of opinions of members of a society.

The essential characteristics of culture are as follows (Hodgetts, Luthans & Doh, 2006): it is learned not inherited, common, generational, symbolic, structured/integrated, and adaptive. Due to the existence of different cultures in the world, an understanding of their impact on behaviour is critical for global business. If global managers do not know the culture of a country with whom or in which they operate, business performance can be extremely negative (Safire, 1995). According to one of the most commonly used definition, culture is the collective programming of thought that the members of one group or category of people distinguished from others (Hofstede, 1980).

2.1. Cultural values

The basic concept in studies of culture is precisely the values (Hofstede G., Hofstede J.G., 2005). Values represents the basic, relatively enduring beliefs and concepts desirable that provide general standards for assessing specific behaviours, actions and goals and the criteria for the assessment of what is good or bad, acceptable or unacceptable, and creating individual and group preferences (Bahtijarevic-Siber, Sikavica, 2001). Values provide the basic principles of organizing and integrating individual and group goals, prioritize and sort of hierarchy of needs and the importance of goals, satisfaction with the assessment, selection of the preferred lifestyle and general human and social behaviour. Can be individual, group, community and universal human values (Bahtijarevic-Siber, Sikavica, 2001). Values are fundamental beliefs that people have regarding the notion of good and evil, right and wrong, important and unimportant (Hodgetts,

Luthans & Doh, 2006). In general, the results show the diversity and similarity among the values of work and managerial values in diverse cultures. Culture is often shown by the model of culture that is reminiscent of concentric circles, the inner circle, which is the core of the basic assumptions that determine human behaviour; the middle represents the norms and values that are the foundation of society, while the outer part of an explicit artefacts and products of the company (Trompenaars, Hampden-Turner, 2008).

2.2. Cultural Diversity

There are many ways to examine cultural differences and their impact on international management. It also has a very significant impact on the people-the way they behave and think. Diversity exists both within and between cultures, yet within each culture may encourage the behaviour, while others hinder. Social norms are the most common and most widely accepted forms of behaviour (Adler, 2002). It should be noted that cultural orientation of a society describes the attitudes of most members of the society at a particular time, but never all the people all the time. Certain stereotypes reflect the social and cultural norms. Culture affects a large number of business activities, starting with a simple handshake (Hodgetts, Luthans & Doh, 2006).

Some cultures are similar to one another, while some are a completely different. Figure 1. clarifies that cultural diversity by comparing culture as a normal distribution. Equally, those parts that differ significantly, so called. cultural extremes, represents the basis for stereotyping, showing how Americans and French see each other through stereotypes (Ashton, 1984.).

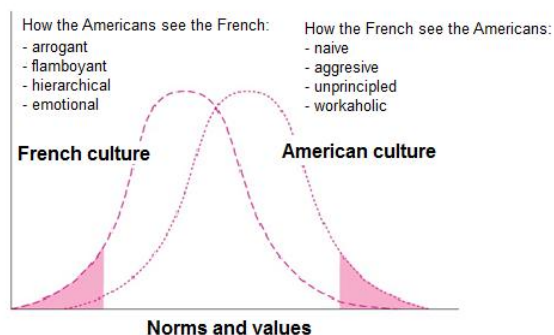


Fig. 1 Comparison of two different cultures; stereotypes as cultural extremes

Source: Trompenaars, F., Hampden-Turner, C., *Riding The Waves of Culture: Understanding Diversity in Global Business*, 2nd ed., McGraw Hill, London, 2008.

Stereotypes (Trompenaars, Hampden-Turner, 2008). are often exaggerate when describing members of other cultures, and therefore wishes to emphasize specificities, and the inability to communicate and collaborate. This is also a big reason why the understanding of national culture is so important for all those who to contact, work and / or cooperate with members of other cultural groups.

3. MODELS OF NATIONAL CULTURE

In the first half of twentieth century, social anthropologists developed the idea that all societies, face the same basic problems – only the answer to those problems differs from society to society. As an answer to this paradigm, social scientists attended to identify what problems are common to all societies (Inkels, Levisom, 1969). They suggested that the following issues qualify as common basic problems worldwide: a) relation to authority, b) conception of self, in particular the relationship between individual and society, and the individual's concept of masculinity and femininity; c) ways of dealing with conflicts, including the level of aggression and the expression of feelings. In order to facilitate cross-cultural and business behaviour, it is necessary to clearly systematize and classify all the difference, and to determine their causes and consequences. Clear understanding of culture to create a positive synergy between the operating performance of diverse cultures.

The three most commonly used models that will be discussed in the remainder of this paper are: (1) Hofstedeov model of cultural dimensions, (2) Trompenaarsov model of cultural dimensions, (3) GLOBE's model of cultural dimensions. All three models have the following basic common origin: values are stable element of culture and cultural differences-base cross-cultural research should be "measured" values, multidimensional cultural paradigm of society by Gert Hofstede (Hofstede,1980; 2001), and dimensions of culture in a variety of models, depending on the concept and structure of values against which they, their lesser and greater sophistication.

3.1. Hofstedes model

National culture have a great influence on the work values (Hofstede, 2001). Hofstede's dimensions of national culture, determined for 53 countries and regions of the world, led by the number of quotes and by importance in the field of cross-cultural management (S ndergaard, 1994). The basis of the model is the research conducted among employees of IBM on a sample of 60,000 workers in the period 1967.-1969. The inclusion of the results of other authors who have used an identical methodology produced a sample that includes 71 countries and three regions. The extension of the model with the original four-dimensional culture of the society got one extra dimension. Database eliminates the

differences that arise as the impact of corporate policies and procedures because of the impact of various strategies. Therefore any variation between countries can be reliably attributed to national culture. Hofstede also found that employees and managers vary according to the following dimensions of national culture: (1) power distance, (2) uncertainty avoidance, (3) individualism vs collectivism, (4) masculinity vs femininity, (5) long-term vs short-term orientation (in a later phase of the study) (Hofstede, 1980).

(1) Power distance represents the degree of inequality in the distribution of power within societies to be considered socially acceptable, and is derived from the fact that power in institutions and organizations is not evenly distributed (House et al., 2002). Societies with high power distance accept large differences in power within the organization. (2) Uncertainty avoidance dimension measures “the extent to which the members of a culture feel threatened by uncertain and unknown situations”. Uncertainty avoidance indicates the extent to which a society feels threatened by ambiguous situations and the extent to which a society tries to avoid these situations by adopting strict codes of behaviour, a belief in the absolute truths, establishing formal rules, and not tolerating deviant ideas and actions. Individuals with high uncertainty avoidance are concerned with security in life, feel a greater need for consensus and written rules, less likely to take risks while individuals in low uncertainty avoidance societies are less concerned with security, rules and they are more risk tolerant (Hofstede, 1980). (3) Dimensions of individualism refers to societies in which the ties between individuals and the poor of every individual is expected to look after themselves and their immediate families, while collectivism refers to societies in which people from birth include the strong cohesive groups that are protected throughout their life in exchange for unquestioning loyalty. It is noted that the degree of individualism in a country complies with the wealth of the country (Hofstede, 2001), and also countries with a high degree of individualism are more inclined to the Protestant ethic, individual initiative and progress to the market shift. Countries with low level of individualism are less prone to the Protestant ethic, show less individual initiative, while the progression of age-related / age. (4) Masculinity refers to a society in which one can clearly observe the social roles by gender (Hofstede, 2001). Femininity refers to a society in which gender roles overlap, and that of the women and men are expected to be humble, gentle, and focused on quality of life (Hofstede, G., Hofstede, J.G., 2005). Dimensions can be compared using a two-dimensional matrix. The integration of cultural factors in the two-dimensional image helps illustrate the complexity and understand the impact of culture on behaviour. But unfortunately, this matrix we cannot serve as a safe pattern of how it will behave the members of these cultural entities. The fact is that societies with high power distance should be less individualistic and vice versa, but the behaviour of individual members in such a multicultural environment due to the influence of other factors may differ significantly from the behaviour that imply Hofstede’s matrix. (5) The fifth dimension of long-term vs. short-term orientation was added later (Hofstede, Bond, 1984), and refers to the degree of orientation of the society, in the past, or the future. Long-term

orientation is characterized by the virtues of focusing on future rewards, in particular perseverance and thrift, while the short-term orientation focuses on the past and present, and is characterized by the expectation of quick results, high consumption and low savings (Hofstede, 2001).

3.2. Trompenaars model

Trompenaars model is based on two rounds of the survey, which together comprise more than 45,000 managers in 50 countries. The results and conclusions of his research are seven bipolar dimensions (Trompenaars, Hampden-Turner, 2008): (1) Universalism is the belief that ideas and practices can be applied everywhere without further modification. Particularism, on the other hand, represents the belief that circumstances dictate how ideas and practices should be applied. (2) Individualism refers to people seeing them as separate individuals, while communitarianism refers to people in the sense that they see themselves as members of the group (3) A neutral culture is a culture in which it is expected refrains from expressing emotion. Members of neutral cultures trying not to show feelings. Emotional cultures are those in which emotions are expressed openly and naturally. (4) Specific cultures are those in which individuals have a large social space and readily allow others to enter into it, and share it with them, and a small private space for yourself and keep your good friends. Diffuse cultures are those in which the private and the social space of the same size, and individuals preserve their social space carefully, because entry into the social space and the means to enter into a private space. Dimensions clearly define the relationship between the private and business. (5) Culture achieved the status characterizes access to people on the basis of how well they do their job. Culture is characterized by an attributed status lecture individuals on the basis of the status of what or who that person is. Thus, the culture of high status attributed to assess the long-in the company or have a high-ranking friends while the culture reached the status of respect capable individuals, regardless of age and sex relationship. (6) Cultural dimension of internal routing refers to the relationship with the environment. Internal guidance emphasizes that what is happening to somebody a result of his activities, while external orientation emphasizes the force beyond our control. (7) Sequential access refers to the orientation on just one activity, firm adherence to time agreements, and showing clear preference for planning. Synchronously notion of time involves dealing with more things than one, agree with that about the time and can change in the blink of an eye, and schedules are changed according to the relations.

3.3. GLOBE's model

GLOBE (Global Leadership and Organizational Behaviour Effectiveness Research Program) model of cultural dimensions is the result of many years of work 170 scientists and management students from 61 countries (House et al,

2002; Hofstede, 2006). Researchers dispersed throughout the world were exploring the relationship between the culture of society, organizational culture and organizational leadership. The first six dimensions rely on Hofstede dimensions, but many believe that GLOBE's model because of its width provides a more solid basis for understanding the cultural diversity of the previous two models. GLOBE's model includes the following dimensions (House et al, 1999): (1) assertiveness-the degree to which society promotes and encourages people to be ruthless, confronting and competitive in social interaction, (2) focus on the future-the degree to which society encourages individuals and organizations to focus on future behaviour (e.g., planning, savings, investments), (3) sexual differentiation-the degree to which society minimizes gender differences (differences in the roles of men and women), (4) uncertainty avoidance-the degree to which members of an organization or society strive to avoid uncertainty by relying on social norms, rituals, bureaucratic practices in order to mitigate the uncertainty of future events, (5) power distance-the degree to which the members of the company or organization agree that power should be unequally distributed, (6) institutional collectivism-the degree to which organizational and social institutions encourage and reward collective distribution of resources and collective action, (7) within-group-collectivism reflects the degree to which individuals are proud of belonging, loyalty and cohesiveness in their organizations, families and groups, (8) focus on results-refers to the degree to which the Society and its members encourage organizations to increase efficiency and focus on the result, (9) humanistic orientation-indicates the degree to which society and organizations encourage and reward their members to be fair, altruistic, friendly, generous and caring.

4. MANAGING CULTURAL DIVERSITY

Awareness of the existence of cultural similarity and diversity becomes increasingly important for successful operations of multinational companies, as they are becoming transnational. In doing so, managers must be aware that when doing business outside their country of domicile that same way of doing business cannot be transferred to another country to "copy-paste" method. There is a lot of evidence showing that through reconciling differences effective business can be created. The important is to identify the behaviour that varies across the different cultures within the organisation. By doing this, management would be able to guide the people side of reconciling any kind of values (Hofstede, G., Hofstede, J.G., 2005). It shows a tendency to share understanding of the other's position in the expectation of reciprocity and requires a new way of thinking (Trompenaars, Woolliams, 2004).

Cultural diversity has a real impact on the operation and behaviour within organizations. In many cases, people are recognizing cultural diversity associated with negative aspects such as racism, sexism, ethnocentrism and professionalism. It should be noted that the recognition of cultural diversity is not

the same as judging people based on their cultural background, it only represents the awareness of difference. Neither one cultural group is successful or unsuccessful, and only because of the element of culture. Judgments about cultural diversity as an a priori good or bad leads to inappropriate, racist, sexist and ethnocentric attitudes and behaviors. On the other hand, awareness of the difference has the opposite effect. Cultural blindness limits the ability of "profiting" from the diversity, it is a perceptual and conceptual; we do not see and do not want to see the difference. The literature often reports the following types of strategies for managing cultural diversity (Adler, 2002): (1) Ignoring cultural diversity- managers do not recognize cultural diversity and their impact on the organization. This strategy is very often used in parochialisation (Hofstede, 2001)). Therefore, they do not see and do not want to see any impact of cultural diversity on the management and organization, and cultural diversity is considered irrelevant. This strategy excludes effectively manage cultural diversity and preclude the possibility of minimizing the negative impact and increase the positive impact of cultural diversity. (2) Minimization of cultural diversity- this strategy is often adopted in ethnocentric organizations. Managers recognize cultural diversity, but only as a source of (potential) problems. In ethnocentric countries managers of organizations believe that their way of operation and management "best", the other modes are considered inferior. Diversity has been reduced in a way to minimize the differences, while the benefits that derive from it are not taken into account. (3) Organizations that adopt a management strategy cultural diversity is synergistic organization. This type of organization understands the impact of cultural diversity that includes their advantages and disadvantages. Accepting synergistic approach, managers and employees reduce potential problems in a way to manage the impact of cultural diversity, and not in a way to reduce the very diversity. Organizations that use diversity management strategy, train its managers and employees that they can recognize and take advantage of cultural diversity in a way that they become an advantage for their organization.

5. CULTURE AND MANAGEMENT PRACTICE

The impact of national culture on international business affects the core functions in human resources management, marketing and finances, corporate strategies, organisational structures and business ethics. Differences in national culture are reflected in business decisions. Improving the alignment or congruence between management practices and cultural contexts yields tangible business benefits (Ghemawat, Reiche, 2001 cited from Newman, Nollen, 1996)):

- a) Participative management can improve profitability in low power distance cultures but worsen it in high power distance cultures;
- b) Quick fixes can improve profitability in more short-term oriented cultures but worsen it in more long-term oriented cultures;
- c) Merit-based pay and promotion policies can improve profitability in more masculine cultures and reduce it in more feminine cultures;

d) Emphasizing individual contributions can improve profitability in more individualistic cultures and worsen it in more collectivistic cultures.

To understand connection between culture and managerial practice, it is important to understand cultural explanation for differences – their cultural roots, as management practice represents only the top of the iceberg. With cultural maps (Hofstede, G., Hofstede, J.G., 2005). it is possible to create country profile as a reminder that managers in different countries tend to have preferences for way of organizing (Schneider, Barsoux, 2003).

5.1. Culture and organization

When talking about influence of national culture of organization, the attitude toward it is bipolar - the culture free (etic) approach is connected to the argument that structure is determinate by organizational features, and the other that argues that the social context creates differences in structure in different countries (emic) (Hofstede, 2001). In order to understand cultural differences, pairs of cultural dimensions will be compared in order to get better perspective regarding business behaviour. Cultural maps are highly helpful to the managers to overcome cultural shock and to understand differences, but being sure how somebody will behave, we need to know countries and their customs little bit better. Policies and procedures are also culturally rooted.

5.2. Culture and strategy

In developing and implementing strategy, organizations need to assess their external environments and their internal capabilities. Managers making strategic decisions often find themselves confronted with socio-political environment, structured problems or environmental uncertainty (Isada, 2010). And they react according to their subjected reality. Managers from different countries have different assumptions who should take the consequences or take the control. Cultural roots affects what kind of information should one consider important, what models are used to analyse that information, who should be involved and what strategic decision are taken (Ojsalo, 2010).

5.3. Culture and human resources management

For international companies going globally, it is important to choose human resource strategy that is able to support its strategy. Cultural roots are very important for selection, socialization, training compensation and reward system, performance appraisal and career development system (Nistor, R., Nistor, C., Muntean, 2010). There is the lack of adequate theory to explain the complexity of differences between the menaning, policies and practice of HRM in different countries, but three groups of theories give really good contribution to that area

(first one focusing on differences, second one predicts that the strong logic of global capitalism is leading to similar approaches at the organizational level and the third one is the world polity approach) (Harzing, Pinnington, 2014).

6. CONCLUSION

Understanding and accepting national culture with its values, beliefs, attitudes and forms of behaviour is a prerequisite for the success in the modern business environment. Nowadays, business does not recognise the boundaries between the countries, and expects us to embrace and utilize all types of competitive advantages that the modern environment brings. Cultural differences are constant and persistent, and they present a bunch of challenges especially for multinational companies. Companies that manage adaptation effectively are able to achieve advantages in the various cultures where they operate while extending their main sources of advantage across borders, and in some cases even making cultural diversity itself a source of advantage. Although, this emphasizes cultural differences, which are often underappreciated, it's equally important to take care of cultural similarities. In managing adaptation, there's also a great deal to be gained by focusing on what unites us rather than what divides us. Culture and cultural diversity can be both an asset and a liability. Managers must be able to tie the issue of managing cultural diversity to the need of business and be skilful in business issues, goals and results.

The impact of national cultures in international companies goes beyond management style – it influences other business functions and organizational parts of companies.

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USING THE METHOD OF MULTI-CRITERIA DECISION MAKING TO DETERMINE THE COMPETENCY MODEL OF CRISIS MANAGER

JEL classification: M12, C10

Abstract

The article presents a model of crisis manager competencies. It was created in cooperation with the owners of small businesses. Based on brain writing the competencies required for a crisis manager were generated. Decision-making method AHP was used for competencies decomposition into two levels. On the first level three groups were placed. They are called managerial competence, interpersonal and technical. At the second level, these groups were further decomposed, e.g. on competencies like leadership, strategic thinking, time management, financial management, resilience, independence in solving problems, team work etc. The respondents performed quantitative pairwise comparisons by Saaty's method. Respondents evaluated competencies at both levels. After evaluating Saaty's matrices modified on the basis of comprehensive results of all respondents the competency model of crisis manager was created.

Key words: multi-criteria decision making, competency model

1. INTRODUCTION

Today's crises are varied both in material and phenomenal form. This fact is reflected in the variability of functions of a crisis manager. The factor unifying all crisis managers is the effort for an effective resolution to the crisis, whether that results in exiting the predicament, or termination of business altogether.

If a business has an employee with strong managerial experience he may be given to perform the function of a crisis manager. If this person feels unable to handle the situation themselves a consultancy firm or an external professional crisis manager can be brought onboard for assistance. On the other hand, businesses in acute phases of crisis do not usually have the resources to be able to afford an external consultant or a crisis manager.

The vulnerable position of small businesses and their endeavour to understand the threat from potential crises were an impulse for a research project one of the outputs of which is this paper.

The main of this article is to form a model of competencies for the position of a crisis manager. On the basis of a research made by the authors of the article it was found out that the model of competencies for the position of a crisis manager had not been created on the conditions of the Czech Republic yet.

This paper presents a model of competencies required of a crisis manager. It has been created in cooperation with small business owners based on 'brainwriting'. Using the decision-making method 'AHP', competencies have been broken down into two levels. The respondents of this research made quantitative paired comparisons using Saaty's method. The competency model of a crisis manager has been compiled using Saaty's matrices based on the comprehensive results of all participants.

2. THEORETICAL BASE FOR THE PRESENTED PROBLEMS

Theoretical concepts, which are considered in the paper will be explained.

2.1. Competence and Competency Models

Competencies are defined as a set of desirable characteristics, experience, knowledge, abilities, skills, motivation, attitudes and personal qualities for a given activity or position. It has therefore a wider significance than the term qualification, which is more focused on formal certification of the outputs of learning and education.

Competence can be monitored by various criteria. Hronfk (2006) lists those as social-psychological competence, problem solving competence, interpersonal, and self-management competence. Another view of the structure of competencies is based on the type of work and the skills necessary related to it. The resulting profile of specific positions is created as a combination of the following categories: managerial competencies (skills and abilities that contribute to excellent performance in the role of a manager, for example conflict resolution, strategic thinking, coaching and more), interpersonal skills (essential for effective communication and building positive relationships with others; empathy, negotiation, presentation skills, etc.) and technical competencies (technical skills related to the particular job such as programming abilities, data collection and analysis, budgeting and others). This profiling is used in this paper. Competency types can even be categorized by the different groups of employees for whom they are intended. As reported by Kovács (2009), competency models describe specific combinations of knowledge, skill and other characteristics needed for effective performance of the tasks involved in the running of an organization. These combinations are structured into different sized units. What competency model and what types of measurements of individual competencies is eventually selected depends on the intentions of each organization.

2.2. Competencies of Crisis Manager

A crisis manager must have strong self-motivational drive, the ability to anticipate and respond to changes dynamically. Assimilating into the role of a crisis manager assumes knowledge of the company and its surroundings, threats and opportunities, possibilities of and the resources at disposal for the rescue of the company, as well as professional and life experience in managing emergency situations (Frýbert et al., 1995). Monopolizing, not sharing or showing a lack of interest in gaining new knowledge may be proved in extreme situations as very dangerous (Lerbinger, 2012). A crisis manager must know methods and techniques especially in the field of strategic management, project management, change management, process management, time management, conflict management, performance improvement, organizational management, leadership, etc. (Fotr et al., 2006). In addition to continuous professional development, the knowledge beyond the scope of specialization is being seen as increasingly more important. This includes social skills, planning and decision-making abilities (Lalonde, 2004). A crisis manager must have generalization abilities and needs to learn to structure complex problems, use deduction and benefit from synergy effects (Holsti, 2009). Rational and intellectual skills of crisis manager must also include the management of emotional elements of human behavior (Lalonde and Roux-Dufort, 1982). This involves the ability to create an emotionally supportive environment, calm heated emotions and situations as well as control one's own negative feelings. A good crisis manager must be creative and have good communication skills (Fink, 2013). Truthfulness, consistency and trustworthiness are important values expected of a manager (Mitroff et al., 1989).

The outlined requirements correspond with the application of four points defined in the synthesis of requirements established by Miller (1987). These are strategy, leadership, ability to structure problems and knowledge of the environment. Mental resilience is also crucial to crisis manager's work (Gmelch, 1982). Margolis and Stoltz (2010) identified aids that managers can use to analyze critical events in order to move forward. These are the amount of control over events, the extent to which the course of events can be affected, the extent of actual damage and the duration of symptoms. Wooten and James (2008) point out the importance of human resources development for the creation of the capacity of the company to manage the activities of crisis management. In order to build a highly performing crisis team Hálek (2008) summarizes the abilities required of crisis manager as the ability to assemble the right team, then lead the team carefully, provide support, establish and follow the rules of team work and ensure the maintenance of high working standards while under pressure.

2.3. Competency Models in the Firms of the Czech Republic

A research focused on the use of the models of competencies in the firms in the Czech Republic was done in the year 2014. This research was realized by the firm Trexima and 292 respondents were addressed in. The main aim was to find out if the competency models were used in organizations and if yes, for which personnel activities and what contributions followed from using the competency models. According to the research 28% of organizations with more than 100 employees use the competency model. Next 41% of organizations use the competencies at description of the work positions. However, more than 1 third (34%) of human resource professionals don't know the conception of the competency model. The main barriers why the firms don't use the concept of competency model are (except for ignorance of it) mistrust in the functionality of competency model, fear of high stress and administration and of difficult implementation. Competency models are usually used for defining the requirements for the working position (95% organizations), for recruitment and selection of employees (95% organizations), for training and development of employees (89% organizations), for appraisal of employees (84% organizations).

To the main contributions of using the models of competencies belong the help in filling vacant positions (32% organizations), job designing (22% organizations) and determining the developing needs of employees (22% organizations).

The results of the research confirm that the benefits of competency model for better recruitment and selection of people and for their professional development is main according to the human resource professionals. 95% of human resource professionals who use competency models would recommend it to other firms in their field.

3. METHODOLOGY

Here are described the methods used in the research and the research process. The paper is based on the results of a research conducted in the fall of 2014. The research's respondents were business owners employing up to ten staff with an annual turnover of up to ten million CZK and operating in the Moravian-Silesian Region. The Chamber of Commerce was used in order to obtain trading information. The participants were then selected randomly. 250 respondents took part in the pilot survey. All participants indicated that their company had been facing a very serious problem but not quite life threatening to the existence of the business itself as yet. The aim of the research was to determine what competencies small business owners require of crisis managers and use the findings to create a model of small business crisis manager competencies.

3.1. Brainwriting

The 'brainwriting method' was preferred to 'brainstorming' for the identification of competencies. The basic version of brainwriting was used which means everyone working on their own. This method stems from findings of a research that suggests that more and better ideas are generated using Silent Tools rather than using more traditional brainstorming meetings which are open. There are several reasons why brainstorming is considered ineffective. Some members of the group remain creatively passive, while others produce ideas. Other members of the group are worried that their thoughts might evoke negative comments, which causes them to remain silent. The initial ideas produced during brainstorming sessions also tend to have a disproportionate influence on the rest of the debate. The participants instinctively assimilate those into their ideas as a good example or a definite potential solution to the problem (Heslin, 2009). Sharing ideas in groups thus ironically leads to group thinking instead of unique individual ideas. Brainwriting creates a more neutral environment and the results are various creative ideas.

3.2. Saaty's Method of Determining Weights

Saaty's method was used for the treatment of obtained information. In this method, all the pairs are compared and the evaluation criteria are stored in the so-called Saaty matrix $S = (s_{ij})$, where $i, j = 1, 2, \dots, k$. The elements of the matrix are interpreted as the estimates of the proportion of i -th weights (w_i) and the j -th (w_j) criteria (Saaty, 2008):

$$s_{ij} \approx \frac{w_i}{w_j}; \quad i, j = 1, 2, \dots, k. \quad (1)$$

$$s_{ij} \in \{1/9; 1/8; 1/7; 1/6; 1/5; 1/4; 1/3; 1/2; 1; 2; 3; 4; 5; 6; 7; 8; 9\}$$

The comparison between criteria specifies the extent of the preference, which is expressed as a certain number of points from the selected scale. The comparison determines whether one criterion is preferred to another but also to what extent. Saaty recommends the use of the nine-point scale, the odd stages are described: one point means that the criteria are equally important, three points mean that the first criterion is moderately more important than the second one (experience and judgment slightly favor one activity over another), five points mean strong importance, seven points mean very strong importance up to nine points which means that the first criterion is absolutely (extremely) more important than the second criterion (Saaty, Vargas, 2012). Saaty's matrix \mathbf{S} is a square matrix of $n \times n$ (number of criteria), for whose elements the relationship is valid:

$$s_{ij} = \frac{1}{s_{ji}}; i, j = 1, 2, \dots, k \quad (2)$$

Thus the matrix \mathbf{S} is reciprocal. Before calculating the importance of criteria it is necessary to verify that the specified matrix of paired comparisons is consistent. A consistent matrix means e.g. the decision maker says a criterion x is equally important as another criterion y (so the comparison matrix will contain value of $a_{xy} = 1 = a_{yx}$), and the criterion y is absolutely more important than a criterion w ($a_{yw} = 9; a_{wy} = 1/9$); then the criterion x should also be absolutely more important than the criterion w ($a_{xw} = 9; a_{wx} = 1/9$).

Degree of consistency can be assessed in different ways, one of them is the consistency index defined as follows:

$$CI = \frac{(X_{max} - n)}{(n - 1)} \quad (3)$$

where X_{max} (λ_{max}) is the largest eigenvalue of the matrix \mathbf{S} and k is the number of criteria. The matrix \mathbf{S} is sufficiently consistent if the $CI < 0.1$ (Saaty, 2008).

Calculation of significance from Saaty's matrix can be done in several ways. The default (Saaty's) procedure is based on calculating the eigenvector matrix v defined by the following formula:

$$\mathbf{S} \times v = X_{max} \times v \quad (4)$$

to estimate the weights w_i to meet the formula (1).

One of the simpler frequently used methods is the determination of weights using a weighted geometric average of decision matrix \mathbf{S} rows. By normalizing these averages we get approximate importance of criteria w_i , by the following formula:

$$w_i = \frac{\left[\prod_{j=1}^k s_{ij} \right]^{1/k}}{\sum_{i=1}^k \left[\prod_{j=1}^k s_{ij} \right]^{1/k}} \quad i=1, \dots, k \quad (5)$$

3.3. Method of AHP

Saaty's method of significance determination is the basis for decision-making method AHP (analytic hierarchy process). The AHP method combines quantitative and qualitative approach to the evaluation of sub-options and the result is the quantification of individual decision variants, optimal solutions and sensitivity analysis. The hierarchical structure of the AHP process is a linear structure containing several levels each of which comprises several elements (Staňková, 2014).

3.4. Sampling and Data Collection

The competencies required for the position of a crisis manager were identified using brainwriting. This phase of the research was attended by 50 respondents. They did not have any theoretical knowledge of crisis management and such were not familiar with the requirements for skills, abilities and knowledge of crisis manager as outlined at the beginning of this paper. The respondents electronically submitted a summary of their ideas describing their views on crisis manager competencies. Relevance of each complaint was filtered in collaboration with top level executives and experts from human resources management. Opinions were aggregated into three groups: managerial, interpersonal and technical competencies. These groups are considered as the core of competencies, i.e. the first level.

A list of this aggregated summary was forwarded to all the participants (250) for further comment, additions or exclusions.

The second level of competencies and their descriptions were formulated on the basis of their comments with the support of the competencies database. For further processing most frequently identified competencies were selected.

4. RESULTS AND COMMENTS

In accordance with established research goal, i.e. the creation of competency model of a crisis manager, the results will be presented now.

4.1. What Competencies of Crisis Manager Are Required?

As already stated the core of competencies (the first level) was created on the base of small managers opinions. In order to use the method of AHP, the competencies were divided into three groups: managerial, interpersonal and technical.

The breakdown of those, using the method of AHP, is following: *Managerial* competencies: leadership, strategic thinking, focus on result, focus on human, time management, resilience, problem solving. *Interpersonal* competencies: sense of belonging, communication, team work, independence, focus on customer. *Technical* competencies: knowledge of methods, creative thinking, flexibility, human management, product management, finance management, planning, work organization (Figure 1).

Figure 1 Breakdown of Competencies Using the AHP Method

Source: own processing

The following part of the research was attended by 250 respondents. The respondents assessed groups of competencies at first and second level using Saaty's method to determine which competencies are the most valuable to ensure successful performance by crisis manager. The final matrices for the competence evaluation were created by median.

4.2. Paired Comparisons of the First Level of Competencies

The following text focuses on the results obtained from the modified Saaty's matrices. Graphical form is presented, too. Saaty's final matrix is presented on Table 1.

Table 1

The First Level of Competencies - Paired Comparisons

matrix S	managerial	interpersonal	technical	geomean	weight w	$\frac{S \times w}{w}$	$(S \times w)_i / w_i$
managerial	1	4	9	3.3019	70.09	2.1782	3.1078
interpersonal	1/4	1	6	1.1447	24.30	0.7551	3.1074
technical	1/9	1/6	1	0.2646	5.61	0.1745	3.1068
				4.7112	100.00	$X_{max} =$	3.1078
				RI =	0.580	CI =	0.0539
				N =	3	CR =	0.0930

Notes: CR = consistency ratio, RI – random index, N – number of criteria

w – Saaty’s weight vector – see (1), w_i – i-th element of vector w (weight of i-th criteria in %)

Source: own processing

It is evident that respondents highly appreciated managerial competencies (that contribute to outstanding performance in the role of manager), which reached the level of significance of 0.7 (70.09%). What is striking is the low evaluation of technical competencies (i.e. the skills related to specific job) with a weight of 0.056 (5.61%).

For better clarity the distribution of weights is captured graphically (Figure 2).

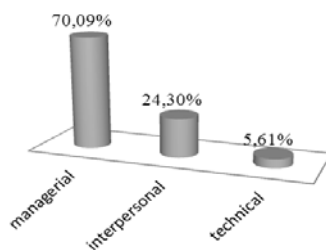


Figure 2 The First Level of Competencies - Paired Comparisons

Source: own processing

4.3. Paired Comparisons of the Second Level of Competencies

Competencies at the second level are captured in the following Saaty’s final matrices (Table 2, 3, 4) and figures (Figure 3, 4, 5).

4.3.1. Managerial Competencies

Table 2

The Second Level of Competencies - Paired Comparisons – Managerial Competencies

S	a	b	c	d	e	f	g	geomean	weight w	S × w	(S × w) _i /w _i
a	1	9	4	5	4	1/2	3	2.7124	28.11	2.3848	8.4843
b	1/9	1	1/9	1/5	1/4	1/8	1/8	0.1921	1.99	0.1486	7.4662
c	1/4	9	1	3	3	1	1/2	1.3920	14.42	1.0606	7.3529
d	1/5	5	1/3	1	1/2	1/5	1/5	0.4888	5.07	0.3752	7.4077
e	1/4	4	1/3	2	1	1/3	1/5	0.6410	6.64	0.4791	7.2126
f	2	8	1	5	3	1	1/3	1.8701	19.38	1.5933	8.2213
g	1/3	8	2	5	5	3	1	2.3535	24.39	1.9521	8.0038
								9.6498	100.00	X _{max} =	7.7355
a leadership	e time management							RI=	1.320	CI=	0.1226
b strategic thinking	f resilience							N=	7	CR=	0.0929
c focus on output	g problems solving										
d focus on human											

Source: own processing

The respondents were in agreement that a charismatic leader is essential at times of crisis, as well as their problem solving skills (Figure 3). At the same time the respondents were aware of the need for psychological resilience of a crisis manager. Strategic thinking, on the other hand, was rated very low. Apparently this is due to the fact that in times of crisis it is necessary to be able to make short-term decisions promptly. However, even at such times, it is dangerous to underestimate or ignore long-term strategic decisions. When creating a model based on the discussions with experts from management roles a higher ranking was given to this competence.

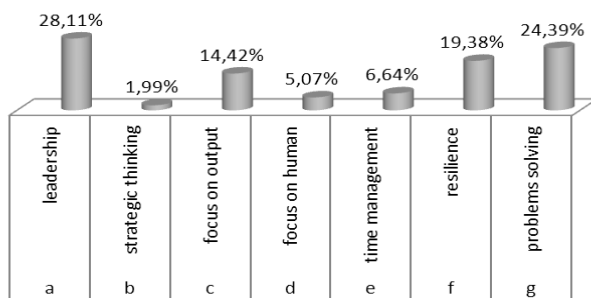


Figure 3 The Second Level of Competencies - Paired Comparisons Managerial Competence

Source: own processing

4.3.2. Interpersonal Competencies

Table 3

The Second Level of Competencies - Paired Comparisons – Interpersonal Competencies

S	a	b	c	d	e	geomean	weight w	$S \times w$	$(S \times w)_i/w_i$
a	1	1/7	1/6	1/7	4	0.4234	5.52	0.3074	5.5689
b	7	1	5	1	9	3.1598	41.20	2.2399	5.4368
c	6	1/5	1	1/2	6	1.2920	16.85	0.9257	5.4954
d	7	1	2	1	8	2.5695	33.50	1.7052	5.0899
e	1/4	1/9	1/6	1/8	1	0.2252	2.94	0.1589	5.4122
a sense of belonging d independence						7.6698	100.00	$X_{max} =$	5.4006
b communication			e focus on customer			$RI =$	1.120	$CI =$	0.1002
c team work						$N =$	5	$CR =$	0.0894

Source: own processing

In order to communicate one cannot be afraid to accept and take responsibility for independent decisions as pointed out by the respondents as one of the most important interpersonal skills (Figure 4). They also recognized that saving the company is not in the hands of individuals but in those of the whole team. A crisis manager must be able and willing to create a team of experts in order to rescue the company and utilize and support their abilities.

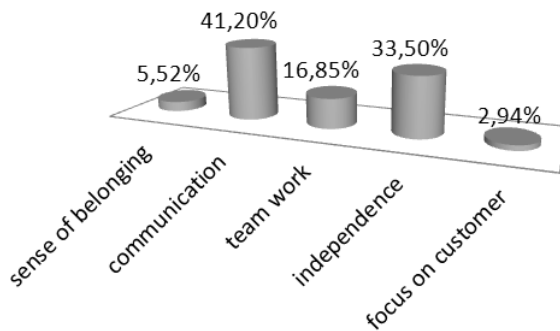


Figure 4 The Second Level of Competencies - Paired Comparisons Interpersonal Competence

Source: own processing

4.3.3. Technical Competencies

Table 4

The Second Level of Competencies - Paired Comparisons – Technical Competencies

S	a	b	c	d	e	f	g	h	geomean	weight w	$S \times w$	$(S \times w)_i/w_i$
a	1	3	2	1/2	3	1/9	5	1/7	0.9588	8.44	0.8484	10.0532
b	1/3	1	1/4	1/7	1/5	1/8	3	1/8	0.3206	2.82	0.2451	8.6855
c	1/2	4	1	1/4	1/2	1/5	4	1/2	0.7499	6.60	0.5592	8.4726
d	2	7	4	1	2	1/2	6	1	2.0692	18.21	1.4860	8.1597
e	1/3	5	2	1/2	1	1/2	5	1/2	1.0961	9.65	0.8526	8.8380
f	9	8	5	2	2	1	9	3	3.7473	32.98	2.9645	8.9885
g	1/5	1/3	1/4	1/6	1/5	1/9	1	1/7	0.2334	2.05	0.1771	8.6205
h	7	8	2	1	2	1/3	7	1	2.1866	19.25	1.7697	9.1956
a	focus on standards			e product management					11.3619	100.00	$X_{max} =$	8.8767
b	creative thinking			f finance management					$RI =$	1.410	$CI =$	0.1252
c	flexibility			g planning					$N =$	8	$CR =$	0.0888
d	human management			h work organization								

Source: own processing

Financial management is evidently the first one among technical competencies (Figure 5). The human factor, i.e. human management and organization of workloads is in the second place of importance. The little importance attributed to planning could have stemmed from the same reason as the evaluation of strategic thinking in the group of managerial competencies. The low evaluation of creative approach capabilities is surprising, however. It is as if the owners focused on responding to the situation and its development (flexibility) but not looking forward in order to creatively prevent such situation from happening.

On the back of further discussions with the respondents and experts in the field of management a higher ranking was subsequently awarded to flexibility and creative approach within the model.

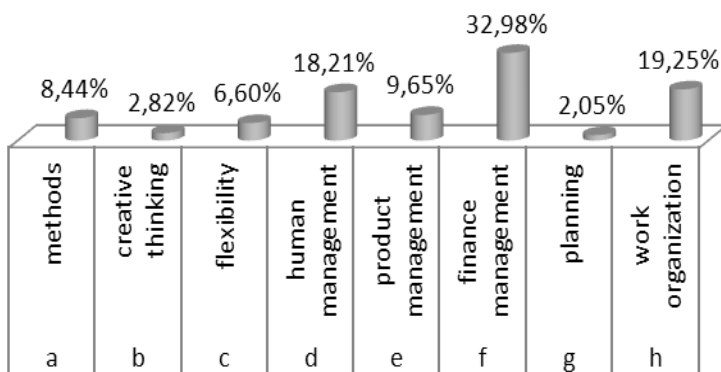


Figure 5 The Second Level of Competencies - Paired Comparisons Technical Competence

Source: own processing

5. COMPETENCY MODEL

The next step was to determine the degree of importance that individual competencies have for effective performance of crisis manager work. Ordinal scale was used. Grade one means a high marginal significance in order to achieve excellent performance level and grade four indicates that the competence is crucial for achieving excellent level of performance (see Appendix 1, column I - importance of skills and abilities).

The definition of the levels of individual skills has been followed. It means describing the properties of skills based on the level of personal development. Five levels (ordinal scale) have been determined for the purpose of this research. Level one characterizes a weak level of skill or ability, three - middle level, level five characterizes excellent value (see Appendix 1 Competence: Interpersonal – Teamwork - description of levels 1-5).

Also, there have been assigned target values to the individual skills. These indicate the expected characteristics of skills or abilities for the job position. Not always required the highest level.

The scale of the importance of skills, levels of skill and target values have been recommended on the basis of consultations with the respondents and experts in the field of crisis management (see Appendix 1, column T – target value).

The proposed model is shown in Appendix 1. Due to the extensiveness of the model here are just examples of observable behaviors for selected

competencies. There is also presented an example of description of the levels for the competence "Teamwork".

6. CONCLUSION

The research indicates that managers of small businesses still put relatively little emphasis on crisis planning (Mikušová, 2013). They do not consider it as a part of the strategic management. The presented crisis manager competency model is based on the survey's participants' actual requirements and emphasizes internal qualities of individuals as a result of their personal development. In addition to professional qualifications, the range of experience, knowledge, abilities, skills, attitudes and personality characteristics, must also be used in defining and assessing competence.

The forming of the models of competencies not only for the crisis managers but also for other work positions in an organization will help the small businessmen to improve the crisis readiness, to apply the holistic access to the controlling the human sources based on competencies and will ease work of the managers and will consolidate and promote the value of the firm.

Acknowledgment

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Appendix 1

Competence model for the position of a crisis manager – interpersonal competency (greatly abbreviated)

	Examples of observable behavior	T	I
Sense of belonging	<ul style="list-style-type: none"> understands and supports the values and culture of the organization and takes ownership for it familiar with the vision and strategy of the organization 	2	2
Communication	<ul style="list-style-type: none"> high standards of formulating ideas both in written and oral form actively listens to others comfortable in front of an audience able to initiate communication encourages others to communicate welcomes and develops opinions of others and their feedback 	4	3
Team work	<ul style="list-style-type: none"> possesses natural charisma, emanates authority appreciates the progress of others and enjoys their success promotes cooperation as the preferred working style able to work in multicultural teams 	5	3
Independence	<ul style="list-style-type: none"> able to make decisions promptly and flexibly able to handle unexpected situations and estimate and apply own strengths seeks help if necessary able to obtain necessary data and resources able to judge personal risk and not afraid to take it if necessary 	5	4
Focus on customer	<ul style="list-style-type: none"> wishes to satisfy customers and their basic needs is friendly and approachable good interaction and empathy skills towards customers anticipates and identifies the needs of customers 	2	1

Notes: T – Target value (1 – 5), I – Importance (1 – 4)

Source: own processing

Competency: Interpersonal - Teamwork - Description of Levels 1-5
(abbreviated)

1	The cooperation with him is very problematic. The willingness to work in a group towards the common aim is insignificant. He gives information only after request.
2	He works in a team when asked. He is more likely passive than active. He has low identification with the team's aim, he does only what is necessary.
3	He is more active than passive. He cooperates in a team and he is able to adapt to required behavior. He shares the information but he doesn't offer it actively. He respects the team's aims.
4	He actively cooperates in a team and he holds the positive role in the team. He shares and offers the information. He faces his activities to the team's aim. He takes into consideration the ideas and opinions of the others.
5	He holds the position of an unforced leader in a team, he has natural respect. He appreciates the progress of the others and enjoys their success. He supports the cooperation as a preferred working style. He is able to cooperate in multicultural teams.

Source: own processing

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WATER MANAGEMENT - AN IMPORTANT CHALLENGE FOR MODERN ECONOMICS

JEL classification: Q 25

Abstract

Water resources are one of the most important issues of our time. Representatives of the world's countries and experts of the region invest all their time and skills in devising the proper way of managing the integration of the concept of sustainable development. Also, the goal of every state in the management of these resources is to find the right ratio of the public and the private sector in the management of water supply, most of the reasons are to avoid any kind of conflict because of water resources. The same conflicts are very divisive in terms of physical confrontations, protests and the spread of various diseases in the area with contaminated water. For these reasons, it is crucial to recognize and correct implementation of the process of water resources management, to adjust it with the concept of sustainable development in the future.

Key words: water resource management, water supply, water resource liberalization, conflicts over water, water security

1. INTRODUCTION

One of the biggest challenges of the 21st century is to make sure all people on Earth have better living conditions while reducing the impact of human activities (anthropogenic impacts) on the natural ecosystems and the global environment. Since water is fundamental to every living thing, and for many purposes it has no replacement, as one of the priorities on the way to achieving this noble goal is to ensure the availability of sufficient quantities of drinking water for the needs of present and future generations. However, in dealing with the growing problems of water supply, the general environmental protection and improvement of human life, especially the poor, at world level, made, or appear to be very modest, limited gains. In fact, the world applies to the new problems and challenges as before. Although water is a renewable natural resource, now due to disruption of the hydrological cycle more present fact is that natural supplies of drinking water is consumed in much faster rate than it is naturally filling and recharging. It is becoming increasingly evident and in surface and groundwater, where water consumption significantly exceeds the natural recharge. In addition, due to the limited availability of water ways, intensive use of water leads to a deterioration of its quality to the extent that it becomes practically unusable for other purposes. Marked improvement in the quality of such water, on the one hand, is very expensive (cost of energy, technology, final disposal of waste products), on the other hand gives rise to significant pressures on the environment with the resulting negative impacts.

The purpose of the research is to show the importance of water resources management, development of the same throughout history, description of important concepts such as the liberalization of water resources and water security. Also, the authors will critically examine the role of public and private sector in the management of water resources for the reason that their role is crucial in addressing the current issues about natural disasters (such as the recent floods in Slavonia or the great drought in the Middle East). The theoretical contribution to the work of science lies in the fact that they appear under-researched concepts and created guidelines for further research of the same, in order to better understand the concepts that will have a significant impact on the future of humanity.

In terms of composition, the paper is divided into five chapters. After the introduction, the first chapter presents the history of water management and development of the area. In order to understand the current status it is important to start from the very beginning and the initial state of water resources. Role of water in the ancient civilizations and religions, as well as short day transition to a new era, was described in detail. The second chapter deals with legislation on water management. Through the development of modern economies the legal framework is growing and within which to regulate all resources, including water. At the global level with the legal framework at the national level were held, and are held still, meetings of representatives of many countries of the world which bring the various agreements and regulations, signed by the Republic of Croatia,

out of its own legal framework. The third chapter is all about the structure of the water supply, sector within countries in the world. Accordingly, we analyzed the cases in which the water supply is left entirely to the private sector, cases in which water management is fully under public management, as well as cases that present a combination of these, or public-private partnerships, which are the most common form of management. The fourth chapter deals with the liberalization of the water sector, and the introduction of competition in the same area, the most reasons to reduce water losses and increase the efficiency of the system. Also mentioned are the conflicts over water in countries that are lacking water resources, the concept of water security that has resulted from that situation and bilateral relations these countries. The last, fifth, chapter deals with the future. Although it is still uncertain, there are certain events that are based on past data and can be predicted. Apparently, if there wouldn't be drastic changes in the field of water management, scenario of the future will look like an expanded view of the previous chapter, an increasing number of countries, regardless of the availability of water resources will be involved in the war over water.

2. HISTORY AND DEVELOPMENT OF WATER MANAGEMENT

During the last century a number of major revisions in production and use of knowledge in the context of natural resource management began to undermine the basic assumptions underlying the traditional approach leads (Pahl – Wostl, et al, 2011., p. 837). Today the water is everywhere, even metaphorically. It is mentioned in the news, either too little or too much, the center is the story of crisis and disaster perceived through extreme droughts, floods, tsunamis, and the contamination which is a major source of infection and death (Linton, 2010, p. 10).

To whom belongs the water? Who and why should rightfully control and have power over its distribution and, consequently, does the control over water retain citizenship or would it be left to private actors? (Larise, 2014, p. 10-11) In the answers to these questions, the three topics most frequently dominated by debates about law and water policy in the last 15 years. The first theme is water as public property, with an emphasis on the fact that it is owned by the state as the guardian of the public as a whole, with responsibility for water resources management in a holistic approach in order to increase overall social benefit. While the doctrine of public ownership through the history emphasize the importance of waterways for navigation and trade, it has recently focused on the need for sustainable protection of the environment for present and future generations. The second theme is water as an economic good, in which price is determined, it is traded and managed by the public sector. The final vision of water as a global human rights, under which all people have access to clean and adequate water resources for personal and household needs. Despite the perceived inconsistencies and established. According to many authors, treating water as an

economic good is infinitely more to the management of water as a public good and as a human right. The full price of water, the distribution of most of the water to the highest bidder and the involvement of the private sector in water management are, from the perspective of these authors, incompatible with the objective that the water is unique public resource that should be managed in a way to promote a broad public interests (particularly with regard to the environment and the rights of the poorest members of society) (Thompson, 2011, p.17). Most of historical civilization from which has emerged and our global civilization, were explicitly prohibiting private possession of water. Moreover, throughout the history of mankind water is considered sacred, something that should remain untouchable in terms of substantive human relations. Also, the Justinian Code about possession of water resources said: "By the law of nature, the following things belong to mankind: the air, running water, the sea and the coast of the Sea". Islamic Sharia law for centuries protected the right general approach leads, building on the Koran by which the water is "the source of all life," while the civilizations of the Indian subcontinent water for millennia considered the common good, the excluded, just like the air we breathe, of all the relations of private ownership.

According to the Vedas, the mere possibility of life on earth is related to the rain god Indra and his decision to take the heavenly water and link it to the earth, which only became possible after his victory over the demon of chaos Vritra who, with the desire to always keep the water in his exclusive possession prevented the emergence of life on earth. Therefore, the water of the river Ganges, according to Hindu tradition, has always been a link between the world of humans and the divine world. Swahili term Abadi, which marks the human settlement, is derived from the word ab, meaning water, thereby expressing an unbreakable connection between the human with streams and water sources. For American Indians, water is one of the most sacred natural phenomena; the idea that exists continuously to the present day and is reflected in the current requirements of the Indian community in the United States, Canada and Latin America. They are calling for ecological democracy which represents anti-pol globally dominant norms of liberal democracy, and implicitly includes a general right over the water, the environmental sustainability of the economic system and the ethics of sharing. Water is also one of the central elements of traditional Chinese philosophy of nature.

The neo-liberal market economy shifted the historical significance of water from the common good to private ownership, the goods that can and must be possible to trade on the principles of the capitalist economy, similar to any other goods. Each value can and must be translatable into monetary value expressed in monetary price. The commodification of all human values and consequently their reduction under an irrevocable logic of markets, trade and capital begins in the middle of the 19th century, along with unforeseeable consequences. This logic race grapples general human resources, sarcastically defined even in Roman law sentence *Qui prior est tempore, portior est jure*, or

freely translated fastest boy, gets the girlfriend, became the only compass of global neo-liberal project, which begins with the arrival to power of Ronald Reagan and Margharet Thatcher. Neoliberal doctrine fundamentally tightens supsumption of all human and social values under the logic of the market and dictates the demolition of all state and social control in the use of water as well as all stood general social resources. After the destruction of the Bretton Woods system, the International Monetary Fund and World Bank have become the central institutions of the neoliberal order, which starting in the early 1980s warrant the creation of global markets of water, attaching conditions to development loans and have access to sovereign states and their economic actors in global trading networks in obedience compared to dictate of privatization deregulation. The totalitarian logic so called free markets do not allow exceptions and strictly punish disobedience, using at the same time and the aforementioned blackmail and mythology about the free market for economic development of society unconditionally better regulated, and the axiom that private ownership within a competitive market is by definition more efficient than social or public. Empirical facts, however, show the opposite. Namely, they show that a single case of the privatization of water in the last ten years on a global scale for a society brought nothing but suffering, accidents, disease, discrimination and social protests that sometimes, as in the case of Bolivia, even grew into revolution. However, behind the apologetics of neoliberal economics and its logic, which was founded in the general willingness of the act of faith, despite the undeniable facts that prove the contrary, are powerful vested interests, so powerful that any struggle against them, in order to preserve the survival of the individual and society seems like those between David and Goliath.

The privatization of water in the UK, which was conducted shortly after coming to power Margharet Thatcher, is in many ways a paradigm for all the following examples of water privatization around the world in the 1990s and 2000s. Polish Parliament adopted it on November, 4. 1988, and the result is a drastically worsening water quality and supply, while significantly increasing its cost. Maintenance of water supply infrastructure is extremely expensive and requires constant investment. These investments are incompatible with the requirement of continuous profit growth, which is the *raison d'etre* of private companies. It should be recalled that the rate of profit on the privatization of British waters in 1990 has reached 36 to 60 percent and that the salaries of senior management in these companies from 1990 to 1998 grew at a ratio of 200%. Part of the shares until then public RWA Water Company is expected, passed into the hands of institutions of finance capital, which are logically disposed largest potential liquid capital for such investments, which were bought for the purpose of financial speculation. The need investment in the infrastructure of the water supply of private actors is therefore led to the inescapable dilemma: either falling profits or dramatically raising prices to consumers. The answer is, as expected, was the latter, in addition to the way missing and promised investments in infrastructure, which were eventually used only as an alibi constant increase water prices. Lack of adequate investment in infrastructure and the absence of

any works on it have resulted in the conversion of 8 500 employees in this sector in the labor surplus, which had to be released. Lack of maintenance of the water supply network has led further to the enormous water losses in the system, which proved disastrous during the drought in 1995. In order to prevent further losses and potentially unforeseen consequences of neglecting the infrastructure of water supply, repairs to the system at the end again financed from the state budget, so that the loss fell on the backs of taxpayers, and profits continue to be funneled into private pockets. The model in the UK encountered bitter resistance, and is implemented only in England and Wales, and in Scotland and Northern Ireland water remained in public ownership. This basic model, with more or less variations, has been pasted during the 1990s and 2000s at the global level, by the direction of the IMF and the World Bank. Of the 276 loans that the World Bank from 1990 to 2002 allocated for projects related to water around the world, 84 were directly conditional on privatization, and in other cases loans have been allocated exclusively to private actors. International Finance Corporation, a direct sub-sector of the World Bank, had frequently been a shareholder in the privatization of water, as was the case in Argentina and Bolivia (to 2002). The privatization of water resources in Nepal was under non condition of any investment Asian Development Bank in the country. Contrary to liberal myths about how private ownership of key economic sectors and resources leads to healthy competition, which in turn brings lower prices for final consumers, empirical data suggest the opposite: that private ownership of key industries and resources leads only to the formation of oligopolies and monopolies, who are able to dictate prices at their own discretion. In the global water business, over the past decade are established two multinational companies that de facto monopoly the global market water: Suez Int. and Veolia Water, both mixed corporation whose business range includes multimedia, financial speculation and water resources. More than two-thirds of private property over the water on the planet is in the hands of these two companies and their sub-units that operate internationally under different names (Larise, 2014, p. 11).

3. WATER MANAGEMENT LEGISLATION

Water is the most valuable resource that a country can dispose of. For the state to maintain such resource must manage water and put it under special supervision and control of state (Kozina, 2011, p. 139). The concept of legal regulation has different meanings in certain professions in which is used mainly as a term of art to describe a specific characteristic management processes. When it comes to the economic context, the regulation can be described as encompassing all the control measures that the state imposes certain types of business transactions. When a company or country chooses to enter competition as the dominant in managing the economy, then the social and normative regulation consists in the fact that it is intended to prevent distortion of competition (Popović, 2007, p. 690).

3.1. Water management in the world

Human society depends entirely on water resources in terms of drinking water, the use of household, industrial and agricultural production, which represents almost all human activity (D'Odorico, 2010, p. 1). It is important to emphasize that the human race has greatly changed the way the world's water resources work, and now the time has come to this same race to change the way of thinking about them (Sivapalan, 2011, p. 1). Thus, the central theme of the world conference on water strategy is the management of water resources in the 21st century. In this context, points out the basic postulate of a complex function of the water and its social, economic and environmental dimension. Hence the strategy of water resources management should be based on the harmonization of social, economic and ecological demands and interests. This means that none of these three dimensions of water resources can't have an absolute priority, and that others are neglected. If you ask a question of priorities, then it should be kept in mind one of the most important postulates that states that as part of environmental protection, basic human needs must be given priority. In other words, the supply of drinking water, adequate quantity and quality, is the most important task of water management in each state (Petković, 2004, p. 296-297). Traditionally, management of water resources in the world can be characterized as a centralized and mechanized system and large-scale operating within the control regime which leads expansion and efficiency, facilitated the technical and professional support, which, in turn, operates in a stable regulatory framework. While traditional systems have been relatively successful in the past, the capacity of these large-scale socio-technological regime to respond to a growing number of challenges, including uncertainty and complexity, in the modern economy is questionable. With current projections of climate change and increasing demand for water as a result of the growing population, proponents of sustainability proposed changes to the management activities that are sustainable. Regimes sustainability emphasized to flexible framework, primarily flexible, which would include all practices and activities to create a culture that embraces experimentation and learning in order to encourage sectorial adjustments. For example, these regimes to encourage a wide range of experiments and the introduction of alternative ways to supply water on a centralized, hybrid and decentralized level. However, in the global management of water resources, there are numerous barriers to improving the regulatory framework, which include, among others, divided organizational responsibilities, and the perception of the effects on health of the population (Farely, Brown, 2011, p. 721-722). The protection and sustainable use of water resources, are also regulated by the provisions of two specialized branches of international law: international water law and international environmental law. Both these branches, with certain peculiarities, have the same resources that otherwise has general international law, and which are listed in the Statute of the International Court of Justice. In practice, however, by far the most significant regulation of specific contractual provisions and certain declarative acts. In addition, it should be noted that when considering international legal regulation of this issue should be noted that it depends largely on the application of

international law at the national level but also on the development of national legislation, the efficiency of the relevant institutions, staffing and basic preconditions to legal regulations applying in practice.

3.1.1. Declarative documents

A full range of declarative international documents contains provisions regarding the protection and use of water resources. It, above all, relates to the documents adopted at major international conferences, such as the Stockholm Declaration on the Human Environment (1972), the Nairobi Declaration (1982), the Rio Declaration on Environment and Development (1992), the UN Millennium Declaration and (2000) and the Johannesburg Declaration of the Summit on Sustainable Development in 2002. When it comes to the work of international professional associations, it is important to mention some documents adopted by the International Law Association (ILA), UNEP and the Danube sub regional plan. As part of the ILA 1966 adopted the so-called. Helsinki rules. According to the Helsinki rules, each country, within its territory, is entitled to a reasonable and equitable share in the use of international water catchment area. After the Helsinki rules, under the aegis of the ILA adopted a number of other rules relevant for the use and protection of water. The UN Environment Programme (UNEP) in 1978 adopted a document entitled "Principles of conduct in the field of environment as a guide countries in the conservation and harmonious utilization of national resources divided between two or more States." It applies to all natural resources shared by two or more countries, including of course the international watercourses. The most important principle is entered in this document is the principle of fair use. According to it, the state should cooperate on an equal basis and taking into account the sovereignty, rights and interests of other countries, in terms of control, prevent, reduce or eliminate negative impacts in the environment that may arise from the use of such resources. They are expected conclusion of bilateral or multilateral agreements in order to more specific regulation of mutual relations. Also, one of the most important documents for the cooperation of the Danubian countries is the "Declaration on the cooperation of the Danubian countries on water management issues of the Danube River and in particular on the protection of its water pollution" adopted in Bucharest in 1985.

3.1.2. Contractual regulation

The most important international multilateral agreement of universal character which regulates water is the Convention on the Law of the use of international watercourses in no navigational purposes (New York, 1997). It has not yet entered into force but is of great significance especially because for the first time an international agreement on a universal plan lays down the conditions for the use, development, conservation, management and protection of

international watercourses and the promotion of optimum and sustainable use of the not navigation purposes. In the preamble to the Convention indicates, among other things, the importance of enhancing international cooperation and good neighborly relations between the countries. In addition to this international treaty adopted at the global level there are a number of other contractual instruments that are to a greater or lesser extent related to international watercourses. Today, a large number of international organizations are dealing with certain aspects of the use and protection of water and protection of the environment in general. First of all organizations within the United Nations, both at the global and sub-plans, made a major contribution among other things, in the field of use and protection of water. Here we should mention the UNEP, UNDP, OECD, WHO and FAO. Among other global international organizations, the important role was played by the World Bank and the Global Mechanism for financial support in the field of the environment (GEF) (Vukasović, 2006, p. 171).

3.2. Water management in the Republic of Croatia

Assessment of water management is shown in the Water Management Strategy of the Republic of Croatia / 32 / shows clearly that water management in Croatia should improve (improve systems: sewage and waste water, flood protection, irrigation, etc.) (Karleuša, et al., 2010, p. 2). But before parsing the specified conditions it is necessary to define the most important concepts related to water resources management in Croatia. As one of the most important general concepts in water management in the Republic of Croatia law states the following:

- **Water** (intended for human consumption) is all water, either in its original state or after treatment, intended for drinking, cooking, food preparation or other needs of households, regardless of its origin and whether you comes from the public water supply, from the tank or from a bottle or container for the water and all water used in industries to produce food for the production, processing, preservation or marketing of products or substances intended for human consumption unless the competent authority does not consider that water quality can't be affect the safety of food products in their final form;
- **The water environment** is the water system, including water and water-related ecosystems (organisms and their communities), human and material and cultural heritage created by man in the totality of their actions;
- **Public water supply** is business abstraction of groundwater and surface water intended for human consumption and its processing and delivery to the end user or to another supplier of water services, if such operations are done through the structures of public water supply and the management of these buildings;
- **Pollution** is presence of direct or indirect substances or heat into the water and soil caused by human activity, which can be harmful to human health

or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems, which leads to damage to tangible assets, disruptive features of the environment, protected natural value or impact on other legitimate uses of the environment;

- **Water policy** is a set of laws, procedures and measures which, within the scope of the Croatian regulatory system and the law regulating the financing of water management, regulate and implement water management, detailed drainage amelioration and irrigation, and water services to other legitimate uses of the environment; (Zakon o vodama, NN 159/09, 14/14)

Water management and water resources, as a very important part of the action, too, must comply with the laws of the European Union (EU), and agree with the environmental policy, legal and organizational framework of the EU in the field of environmental protection. Within this, it is necessary to apply some principles: **sustainable development**, and coordinated system of technical, technological, economic and social activities in the overall development, where the economically and reasonably natural and created values with the aim of preserving and improving the quality of the environment for present and future generations; **sustainable waste management** which means a more efficient and rational use of resources, waste minimization and treatment with it so that it contributes to a comprehensive sustainable development; **conservation of natural values** and the "polluter pays" and "user pays"; **implementation of incentive measures**; a shared responsibility (decentralization of decision-making); **raise awareness** about the importance of environmental protection; proximity and regional approach to **waste management** that is the hierarchy of waste management, open and flexible market for waste management services and the use of economic instruments before the legal (Pavičević, Stamenović, 2007, p. 131).

The Law on Water defines sources of funds for financing water management and ways of calculation and payment. However, the Utilities Act determines the supply of drinking water and drainage and waste water treatment as a communal activity for which the height of prices, tariffs and determines the payment service provider. However, the supplier of utility services required at each change of prices and tariffs of their services to obtain prior consent of the local government units in the area where the service is provided. The delivered price and the local government is obliged to respond within a period of fifteen days, and if not, by law, is deemed to have given its approval. Changed tariffs apply when they are accepted by local governments that hold a majority ownership of the supplier of the water supply services. Reported list must contain a description of the type of utility service and the manner of calculation and payment services, the structure of the existing price of utilities, the proposed new price of the service and its structure, percentage changes in prices in relation to the current price of and reasons for changes in the price with detailed explanation and calculation. The implementation of this procedure, particularly in the assessment of the reasons for the change in price, requires the bodies of local self-

government relatively high level of knowledge of the technology of water resources management of supply to sewerage and wastewater treatment, as well as high economic expertise for the proper assessment of the cost elements that make up the final the price of water. In practice this is not easy and does not necessarily guarantee that consumers will always have a non-discriminatory pricing of services. Private equity in water supply operators brings to the forefront the profitability of businesses that provide water supply services, which means that the price of this natural resource for end-users must be economic, cover all costs incurred in connection with a public water supply and drainage, provide the return on investment of the owner and give a boost to for further investment in the modernization and development of infrastructure. Privatization is arguably one of the ways to encourage higher productivity so that in addition to meeting the technical, health and environmental standards lay charges and the way business operators at the center of observation. Private ownership in terms of quasi-natural monopolies and the high inelasticity of supply and demand leads to easy opportunities to achieve extra profit businesses from consumers, especially when it comes to the category of households which are the smallest people in the total consumption and the socially most vulnerable. Therefore, the conditions should be developed in which it is not possible to impose excessive prices for consumers, but which allow coverage of all business costs and sustainable development of the activities of special public interest. The question is therefore practical: whose real costs are paid by the consumer, economically efficient, the average effective or ineffective water operators? In Croatia, the price of water ranges from 2.5 to 16 HRK per m³, and should provide compensation for all costs of maintenance, functioning and development of the water system. It is certain that these price differences, without going into the possible hydro-geological and geographical specificities, pointing to significant differences in efficacy between individual operators. For example, losses in water supply networks vary from 8% (Koprivničko - križevačka County) to 68% (Zadar County) as the difference between the abstracted and delivered water to the county level in Croatia. Therefore larger representation of the economic analysis of operating costs of each operator contributes to a better comparative and sorting capabilities to above-average and below-average successful operators. For it is a prerequisite for independent action (regulatory) bodies having the necessary powers to independently ex officio regularly collect the necessary data and regulating tariffs in the water sector. Therefore, public authorities belong to more the role of regulators relations in water management, rather than the role of the providers of such services, as an internationally observed that in such cases, on average, there is less investment in the construction and maintenance of water infrastructure with more public subsidies. Equally, as a rule, relatively low prices that do not reflect the real costs contribute to inadequate consumer compared to the value of water services as well as the very water resources are not inexhaustible and have environmental value (Popović, 2008, p. 696). In Croatia, in the end, so far, published relatively little evaluation of water regime, and these

studies have generally been very spatial limited (Barbalić, Kuspilić, 2014, p. 614).

4. ROLE OF THE PUBLIC AND THE PRIVATE SECTOR IN THE WATER SUPPLY

The core problem of today's water supply is its unsustainability in almost all segments. Many sources of drinking water contaminated and fully or over-exploited, some of which are irreversible, and some in coastal areas are additionally exposed to saltwater intrusion. The former relationship with water as the public benefit, therefore, today is completely unacceptable. Water is not only natural and public wealth, but also an economic good, which is mainly conditioned by the economic and financial costs of supply and protection of water shortage and / or limited availability of water and the privatization of public water supply. The fact that further support of the need for this change in the attitude towards water are significant water losses due to lack of maintenance of water supply system occur at the stage of its exploitation (Vuković, Halkijević, 2012., p. 362).

4.1. The role of the public sector in the management of water resources

The oldest is the belief that water belongs to a group of public goods (Thompson, 2011, p. 19). However, it is necessary to point out that the characteristics of a public good (although it has aspects that can't be monetarily valued) does not mean free access, that is, withdrawal from the determination of price dimensions (Lošonc, 2006, p. 174). During the nineteenth century and the first half of the twentieth, the doctrine of public trust found its place primarily in the decisions of the US courts that deal with navigation rights and other forms of non-consumer use of waterways. In recent decades, however, it is obvious that the extension of the doctrine of public trust in the processes of environmental and cultural interests in water and, geographically, in the determination of a broader set of common legal jurisdiction. As elaborated within the Water Law, which regulates the water supply, the doctrine of public trust involves at least three important principles. First, the government or the public sector, retains the ultimate right to the property over the water, on behalf of the public at large. Although the government may authorize private individuals or private undertakings limited rights to use the water (as is the case with, for example, coastal areas). Second, the government or the public sector, owns the rights to water as a trustee to the public as a whole. Water is not like other state property, such as the post office, sports facilities, military bases and even parks, over which the government has the right of ownership. Instead, the public sector is responsible for water management in the public interest, and as a result there is less limited ownership rights. Ultimately, regardless of the rights that are assigned to the government in the past or are actions individuals and private entities rely,

in relation to the previous policy, the government has the authority and obligation to change the rules of water management at any time in response to changing conditions, information or public document because it has a permanent obligation to manage water for the purpose of public trust (Thompson, 2011, p. 20). Most of the investments in the water sector in high income countries are financed through the public sector, using state of the public finances, collected through taxation or loans, which have been built with the guarantee of tax inflows. There are clear reasons why public spending is the preferred form of financing water supply infrastructure. First, the state may finance the construction directly from tax revenue, in which case there is no cost of capital. In the event that the state decides to borrow money, as a way to shift costs to taxpayers in the future, it can be done cheaper than it would have done the private sector, because of the high security tax revenues. Private investors will not only have to pay higher interest rates, but face a risk of inability to provide long-term returns on investment. Capital expenditures represent 75% or more of total costs, and lower the cost of public funding decisive. The difference in the cost of capital of public and private sector is as big as the total operating costs. Therefore, it is possible that the private sector make up a larger capital costs with comparative savings in operational efficiency. Another reason why the public finances are needed is to make payment for services for households based on the return of the total cost by the private investors resulted in expenditure of 3.8 to 5% of income for households with low income. A true consumer market would be faced with coverage of less than 100%, while the commercial operators will provide services to consumers whose ability to pay high fixed cost unreliable. The third reason, noted that the health benefits of water and sanitation community, not private, and so will the willingness of individual consumers to use these services to be the socially optimal level. To realize the social benefits, the connection must be mandatory, not optional (Hall, Lobina, 2010, p. 4 – 5).

4.2. The role of the private sector in water resources management

Water, despite its possible instrumentalization market, therefore, can't be fully converted to market goods. Its ecological, cultural characteristics are resisting its subordinating the logic of the market circulation. Therefore it is necessary to think about its division, delivering (Lošonc, 2006, p. 172). However, for several reasons, the participation of the private sector with frequent the frequencies in the water sector in the world. Although there are no definitive studies to determine the relative efficiency of private entities dealing with water supply in comparison to those of the public, there is no consensus in the literature regarding the economic savings from better risk diversification. Moreover, the regulatory agreements misallocation of risk has another serious consequence: the negotiations on the renewal of the contract. Such situations include negotiations between the operators and the government in a non-competitive (and generally

not transparent) environment. Since there are significant differences in the data, legal skills and technical support, the private sector tends to benefit from contract renegotiation (Marques, Berg, 2010, p. 1-2). Government who implemented the concept of public-private partnerships tend to offer more justification for the introduction of this model, instead of making more forms of public provision. One of the key justifications for the PPP is that it is primarily used to control public spending. Under to the appropriate terms (in relation to the allocation of risk) investments in public-private partnerships do not require public borrowing thereby providing the possibility of off-balance payments. Secondly, where the PPP is structured on the basis of private financing government can avoid the initial capital costs. The spread of these costs in the longer term can assist in achieving the fiscal targets. The third reason for the PPP is that it provides a model for the use of infrastructure and services at a lower cost, which stems from the most superior scale efficiency of the private sector and technical efficiency. The key driver of the use of infrastructure and services at lower prices is room for risk transfer in the context of public-private partnership. This same space for risk transfer provides the fourth argument in favor of PPPs. If risks are properly allocated between private and public undertakings, resulting in harmonization conducive to a higher level of efficiency. Fifth justification for PPPs is that they provide space for greater innovation and calculation of dynamic efficiency and offers from the supplier are classified according to the output specifications (output) for the detailed specification of inputs, as is the case in traditional procurement process (Reeves, 2011, p. 97 – 98).

5. LIBERALISATION OF WATER SYSTEM AND CONFLICTS FOR WATER

Over the last 15-20 years problems in the water sector have emerged. Developed countries are struggling to provide much needed investment in maintaining and updating its water system. The main concern of the less developed countries, on the other hand, the lack of access to safe drinking water, which, combined with inadequate infrastructure causes more than 5 million deaths every year. Awareness about these difficulties and pervasive infrastructure changes in other sectors show an extremely slow pace of reforms in the water sector. Moreover, most of the systemic reforms so far implemented by developed countries, although in them the situation in the water sector seems less urgent than the situation in developing countries (Menard, Peeroo, 2011, p. 2).

5.1. The liberalization of the water system

The reforms include changes in the decision-making rights, changes that change the way of management and, in many cases, the allocation of property rights of the existing operators. Thus understood, the reform can be implemented in many different forms. Since the early 1980s comprised a model that ran from

liberalization, which has identified the introduction of competition, to privatization. However, it is relevant to look at the broader definition of liberalization, especially in the water sector, where competition barely exists, and winning market share continues to be a major challenge. The movement towards liberalization of urban water systems is mainly driven by financial and ideological factors. However, it turned out that it is far less "liberal" than in other sectors. The most important driver of the reform of the water system was and will remain finances. While developing countries are faced with high costs of enlargement system for explosive urban population, public enterprises in developing countries have to deal with aging networks that require significant investments. Even in well-maintained systems, local authorities face the investments needed for a sharper increase in the quality and adjustment to the new legal framework. Moreover, major investments, was due to higher quality standards, and the need for renewal of obsolete systems, or due to the demographic explosion in the development of cities everywhere are faced with major budget constraints.

In attempting to implement the process of liberalization of the water sector, the problems that usually occur and display cases were recorded in several European countries:

- **England i Wales:** An example of England and Wales is unique in that no other country has a fully privatized water sector. This case provides a stylish example of how financial considerations supported by a strong ideology constitute the most radical form of liberalization: complete privatization. However, this experiment has at least two distinctive features in relation to the reform of other utilities. First, because of the characteristics of the water system, the sector remains under control, the visible action of an independent regulator, the Body for regulation of the water sector. Second, while the liberalization of the water sector in most countries goes hand in hand with the process of decentralization in England and Wales went in a completely different direction, which is also accompanied by an increase in centralization.

- **France:** French way towards liberalization is different. It is rooted in the system through a long tradition of public-private partnerships. However, public-private partnerships have not always been as widespread now, given the recent legislative changes designed to create benefits for the more open, competitive sector. The main drivers behind the launch of liberalization in France are financial restrictions, as well as the UK, which, combined with ideological forces play a very important role. However, unlike the situation in the UK, the process never reached the point of complete privatization, which also was accompanied by a movement towards decentralization.

- **Germany:** From the dynamic model of liberalization in different countries, one in Germany is at least striking. Among many factors that could explain this situation, leading it could be embedded in the very nature of German political institutions. Germany consists of a kind of federal states. Since each of

the 16 states has its own law, the water sector is highly fragmented, with thousands of small, local operators and the many ways organizations. Therefore, no large operators that dominate the national market, the opposite of the situation in France and the UK. Only about 30% of the German population gets its water from the arrangement involving the participation of the private sector, and it represents only 9% of the total number of operating units. The private sector is mainly active in the big cities, in the eastern part of Germany (where after the reunification, destroyed water structure requires large investments at a time of significant restrictions on public finances). In fact, public-private partnerships that remain as exceptions. Most water services are performed under public management. Strong resistance to liberalization has been developed in Germany, not only because of opposition from trade unions, but also because of its continued resentment of the population to water privatized (Menard, Peeroo, 2011, p. 12).

5.2. Water wars

Water is a limited and irreplaceable resource, very essential for survival. Water is central to the concept of sustainable development as a fundamental driving force and primary source of social income, economic development and environmental safety. National, regional and international stability and peace all the more dependent on the effective and sustainable management of the world's freshwater resources (Mason, Blank, 2013, p. 5). System of water resources in the world under the challenges of the many problems (Simonovic, 2008, p. 157). These are: climate change, population growth, migration, urbanization, changing land use in the economic sector, and these are just some of them. All these changes have a direct shot on the water sector, the provision of water services and the availability of ecosystem (Mason, Blank, 2013, p. 7).

5.2.1. Conflicts over water in the Middle East and Africa

The crisis of water resources in the Middle East is a "strategic orphan" that none of the countries and international institutions does not want to "adopt". Despite irrefutable evidence that the region is approaching a dangerous shortage of water and pollution, Western leaders have not managed so far to solve the problem as a strategic priority. However, when you finish the current conflict in the Persian Gulf, it could break significant water crises. Intensifying the problem of security requires continuous action policy as well as a new bureaucratic and advisory structures. In the middle 1980s, US authorities have estimated that at least ten places in the world war may break out due to the disappearance of shared water resources: the majority of the Middle East, Jordan, Israel, Cyprus, Malta and the countries of the Arabian Peninsula, which are considered a dangerous zone where everything available stocks of fresh surface water and groundwater to be fully exploited. Algeria, Egypt, Morocco and Tunisia face

similar prospects within 10 to 20 years. Morocco has taken serious measures in the water and sanitation sector. However, the country faces the prospect of decline of the water supply system. Algeria, Israel, West Bank, Gaza, Jordan, Tunisia and Yemen have already facing a "water barrier" that require accelerated efforts, investments, regulations and controls just to keep pace with the rapid growth of population. Middle Eastern and North African countries, combined, absorbed about 80 million people by the end of 1990, within which is still fighting David, who represents the existing water facilities and sanitation services and Goliath, or the demand for water.

In 1999 Bolivian government gave a concession for water supply for 40 years, in the cities of Cochabamba and Agus del Tunari, an international consortium led by Bechtel. The concession included all water resources in the basin, including jointly constructed wells. In some areas, water prices have gone up by as much as 200%, and thousands of people repeatedly coming out to the streets in protest. One person died in the clashes, while on several occasions was declared 90-day state of emergency, which ultimately led to the consortium officials escaped from the city, and the government canceled contracts. Water supply is again returned to the public administration, although the poor population then felt only insignificant improvement in the level of services. In addition, they are still paying 10 times more compensation than those households that were connected to the municipal system (Furlong, 2010, p. 46). The water and its use and the need for it, is so essential to this and all other areas that came into use the term "water security", as a concept for the use of water in the negotiations and the creation of lasting peace based on international cooperation (Janković, 2007, p. 267). Currently, water security is a concept that is attracting increasing attention within the political and academic debate or (Cook, Bakker, 2012, p. 94). Therefore, it can be concluded that the security of water resources will soon be on a par with military security in the Cabinet of Ministers of Defense (Starr, 1991, p. 1-2).

5.2.2. Conflicts over water in Asia

Drought and slow desertification are the biggest problems faced by China, options under consideration from other Asian countries, including India, are to take control of major hydro sources for India and much of Southeast Asia, and even further, to area of Central Asia and Russia. Obviously, if China is faced with catastrophic problems related to water resources, will act in accordance with their interests, regardless of the current statements of the "shared vision" and a prominent desire to be part of the "world community". Beijing is in his plans expressed a clear position for the rearrangement of Himalayan water courses. The team would move most important waterways for most of the Asia subordinate to his will and the coming years of diplomatic negotiations would address the urgent problem of mass starvation.

India is also facing a big problem of water collection. Hydrologist's reports of NASA's science team say that the water is pumped and consumed much faster than it is renewed by natural mechanisms. The team found that, due to excessive use, water supplies in northern India fell by about a fifth more than expected. Also, the level of groundwater in the three provinces in northern India was decreasing by an average of 4 cm per year from 2002 to 2008, in addition to increasing the amount of groundwater in the country is unsuitable for drinking and irrigation. Conflict over water on which most obviously affect relations of China and India and countries in Southeast Asia, it also has major consequences in Central Asia and potentially draws China into conflict with Russia. Irtysh River, which connects the border of China, Russia and Kazakhstan puts relations of these countries in the same trouble as well as relations of China and India because of Brahmaputra. Therefore, the international community stands out as the biggest problem in this area, despite China's assurances to the contrary, the current "potential interstate conflict over water resources" because some Asian countries already abound disputes about the same, and such disputes are from India and Pakistan to Southeast Asia and China (Bolton, 2010, p. 67).

6. WATER RESOURCES MANAGEMENT IN THE FUTURE

No one can certainly claim what will be the future of water resources in the world in a country (Dellapena, 2013, p. 1). Thus, sustainable use of water resources that meets the needs of a growing world population can't be achieved without better understanding and careful planning of water demand management (Dziegielewski, 2011, p. 1) because of the reason not to acquire the darkest forecasts of wars over water resources and powerful people to operate them, while they might be above the law (Bod, 2010, p. 445). The current authorities in many countries do not know how to deal with problems which carries the supply of safe drinking water. Often a lack of funds prevents quality programs. Many consider that concerning about water should take as big a global campaign where things are resolved globally. Since the conference in Stockholm until the recent conference in Rio G 20+ debate over how to take advantage of and preserve the water resources around the world. Unfortunately frequent conferences and meetings are not too successful, because of conflicts and differences in the interests of different countries, groups etc. (Dellapena, 2013, p. 1-2).

How water management can be sustainable when future can't be predicted with a certain degree of security? Nobody knows with certainty all influences on today's decisions. Nevertheless, one must take into account that future generations have access to water resources only if they develop plans, projects and policies for water management. Sustainability is closely related to various measures of risk and uncertainty about the future. Forecasts of future development will be wrong, and should be periodically reviewed. Realizing that some water management objectives change over time, it is necessary to consider

the flexibility today the planned system. How is the sustainability of the functions of various economic, environmental, ecological, social and physical goals, that water management must inevitably involve a multidisciplinary decision-making process (Gereš, 2004, p. 926-927).

The problem of over-exploitation of water resources is extremely complex from the standpoint of social, economic and political conditions. Solutions must meet the environment and be socially and politically feasible. The general objective to minimize the environmental loads below the threshold permanently tolerable load, allowing for sustainable development. Many countries pay compensation for use of water resources. Size of the fee depends on country to country, most are paid in countries with a higher standard of living than in those countries where the standard of living is lower. The use of water resources is given in many countries in private hands, and this is particularly true for companies which primarily handle sales of drinking water. This method of cooperation between the state and private companies was first introduced in England and then in France and Germany. Yet governments are the ones who largely finance the operations of the system that deals with water supply. Through a variety of taxes and fees in the future are expected to collect the money that will later invest in the maintenance of existing and new infrastructure, the human frame, etc. (Hall, Lobina, 2010, p. 4).

More than any other sector, the water will continue to remain the most connected with most of human development (Ivanova, 2005, p. 46). A clean, healthy drinking water, has become clearly one of the key elements of modern life, but also of economic development. The issue of security of drinking water but is now critical in many parts of the world, and in the future would be, according to many, could become a key strategic issue of human society on a global level. The issue of rational use of water certainly raises in those regions and countries where (at least for now) there is enough water (Goić, 2004, p. 596).

The specificity of the water in its circulation, or in its re-use. But too much pollution, industrialization and modernization (especially urbanization, and half the world's population lives in cities, so we experience the urban transition) increases the requirements of the above resources, and given the rapid growth of urbanization is not difficult to conclude that the towns in the immediate future to embody places high concentration of pollution water. We should not forget that the water surface disproportionately located, for example, nine countries has 60% of fresh water. At the same time, as shown by numerous natural disasters, a large concentration of water does not exclude that in the same countries, at least in some parts, drought occurs. In any case, no one calls into question that water today is as a strategic resource. Despite the growing availability of water in many parts of the world, there are vast areas where people are suffering due to contaminated water and appropriate consequences. It is anticipated that even without the dramatic climate changes that are announced, the number of people who will be affected by shortages of water resources rise to 1.7 billion, how about today is, at some 5 billion people by 2025. There has been growing market of

bottled and mineral water. By some estimates, this market grew in the last 10 years as much as 20%. Some of the most powerful economic actors on the market of bottled water corporations like Nestle Waters, dispose of 16% of total sales in the world market, while the other participants, such as the world-famous Coca-Cola, with its brand Bon Aqua intend to participate, with a larger market share. Given the current and potential water shortages, corporations are becoming more focused on the future of this market, and with the desire to acquire the largest possible share of the market that is still expecting a real "boom". Estimates are that this market will in future carry the highest returns (Lošonc, 2006, p. 162).

It is believed that happenings today are a turning point in thinking how to properly and sustainably manage water resources. Traditional and current technology does not solve the urgent problem and requires a constant and a great investment that is not a problem for a few very rich countries, like the United States and some Western European countries such as Germany, England, France, and the like. In this context, it is more often referred to the so-called "pure system" that is, systems that are decentralized, easily adaptable and energy-efficient. Groundwater which is around 30-35 times higher than those on Earth (rivers, lakes) are quite unused and it is considered that the sustainable development of groundwater and their constantly finding may play a major role in a possible shortage of water in the future. Thus large amounts of groundwater lying unused and can be achieved to use newer technologies and systematic research that water can reach the end users - the people. It is possible, for example, using satellite images, geological mapping, photographic images, geophysical analysis and the like. Using all this information to teams of geologists found enormous deposits of underground water in all parts of the world. But unfortunately, the vast majority of research that stops, because the process of finding and the extracting water is very expensive and time consuming for it unfortunately the majority countries do not have financial conditions (Fitch, 2014, p. 27).

The future, ultimately, carries, according to an estimate many experts who deal with water security, numerous wars because of water. Asian countries and the Middle East will be able to divide on those with large amounts of fresh water, the country with sufficient quantity of drinking water and those with a serious water shortage. Countries like Israel and Jordan will suffer from severe water shortages, while, for example, Saudi Arabia threatened to already in the middle of this century there was an almost complete water shortages. Therefore, countries of the Arabian Peninsula will most use water made the process of desalination of sea water. Kuwait is now, thanks to large exports of oil and vast profits, built a large number of processing factory of sea water, which settled 100% of their current needs, which will continue into the future (Janković, 2007, p. 287).

In conclusion, authors agree that, for water supply management there should establish a right management model that includes:

- **Planning:** includes strategies and measures, which are then implanted in the legislation, inventory of resources and the adoption of strategies / policies / concrete (action) plans.
- **Organization:** at all management levels is needed to determine the key holders who are responsible for the functioning of the water management system. It is probably not possible to let it to one subject, a kind of "stakeholder network for water management system" should be created, define a body that will be in the "center" of the organization. Authors also propose that the system should be bottom-up, or moving from the local level to the top. Which means that most responsible for water would be a local level
- **Leadership:** the central authority in the network of stakeholders it would be responsible for following the water management system and have law defined power and authority to carry out the entire water management policy on its (local or regional) level. Considering model is devoted to local level, it would be similar to linked-"networks" and those on regional /national / EU /global level have, for example, the annual meetings, where they coordinate their policies, possibly redefine strategies for water management, and monitored system proposed improvements, etc.
- **Control:** The same "central body" would be in charge of monitoring the entire system, and that monitoring should be harmonized with previously described meetings (ie. annual) in order to coordinate strategies and policies and the monitoring system and its sophistication, consistency and transparency.

8. CONCLUSION

At this point, management of water resources in some countries is carried out within the legal framework adopted by the national government. Global meetings of government representatives and the experts complement the laws of individual countries and the relevant information is essential to maintain more frequently in order to efficiently monitor and the revise the current state of scarce water resources.

Depending on the organization within the country's water resources management and the water services is left to either the public administration or the private sector. Public administration in this regard have access to finance from the state budget and the end users providing services at a lower user fees, but the private sector is significantly more effective although they charge more. The ideal is a combination of both sectors connected to the public-private partnership. It is also the optimal form of water resource management in modern economies, although some countries, such as the UK, fully privatized its water sector, and some of it, like Germany, is entirely left to the administration.

Important thing to conclude is that theoretical contribution of this paper is pointing out that water management is a specific form of management, mostly

because of the fact that all of the subjects included in managing are dealing with seemingly free public good that world has in abundance, which also provides a whole new view on the water sector problems, such as water losses.

The liberalization of the water sector, which is a process that ultimately leads to full privatization, in many countries has led to conflict because of water resources. The unconsidered and the poorly planned government actions in several countries have caused unintended consequences. World of possible water scarcity, pollution and the spread of infectious diseases for this reason more sows fear.

The authors concluded that the future is not bright. The fact is that no one can accurately predict what the future will be, but according to historical and the current data, the world's population will be facing many wars over water, in the event that the way to manage water is changed and the not resort to the management of the concept of sustainable development. However, one situation will almost with certainty realize. In fact, 10% of the world's water resources is under private control, while forecasts suggest that this percentage in the future to climb, minimum, 70%. The authors believe that the greatest contribution of this study to scientific theory and practice is drawing attention to a very important factor in the survival of humanity and the creation of guidelines for further study of the same, mostly because of the fact that earlier researches haven't shown a focused review of all water management problems or pointed out a need for a multidisciplinary approach to same problems. Therefore guidelines for further research are: to further deepen proposed management model through each function, to further elaborate organizational model of stakeholders in water management, to better define the role of the "central authority" functions, to develop a model for monitoring water management, key performance indicators, and control mechanisms in all scientific area, and particularly in system planning and control (monitoring) which require a multidisciplinary approach, because it is not possible for it to be created only by economists, but should include scientists and experts from different scientific areas - ecology, biology, chemistry, medicine, construction and others, and finally to create proposal for including all of the above in a legislation framework.

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SELF-LEADERSHIP IN PURPOSE-DRIVEN ORGANIZATIONS: ANALYZING HUMAN PERCEPTION FOR MORE INTEGRATED DECISION-MAKING

JEL classification: 120

Abstract

Productive decision-making requires appropriate perception of the facts relevant to the decision. It may be necessary to perceive and integrate diverse and conflicting perspectives appearing inside and outside of the decision-maker. Therefore I scrutinize theoretical and empirical findings on individual human perception as a basis for decision-making and behaviour. Special attention lies on the role of the unconscious (e.g. Bargh, 2006), dual-system approaches (e.g. Kahneman & Frederick, 2002), self-regulation (e.g. Muraven, Baumeister & Tice, 1999, Moffitt et al., 2011), and self-leadership (e.g. Manz, 2013). From this foundation I derive guiding self-leadership guidelines for more sustainable internal balancing and more comprehensive integration of external stimuli. Such self-leadership guidelines allow leaders and organizations to identify blind spots more easily and to improve the perception of the inside and the environment. In purpose-driven organizations with distributed authority, the power to decide is distributed among those employees who appear to be competent for the specific topic. Therefore especially within such organizations this self-leadership competency appears to be crucial for success.

Key words: leadership, self-leadership, perception, psychology

1. INTRODUCTION

It has been shown that a number of organizations – both profit and non-profit – show very successful results by applying organizational practices which radically contradict dominating convictions. The US-company Morning Star produces tomatoes worth \$700 million annually with about 400 employees. They achieve a double-digit growth rate compared to the 1 % of their competitors. The Dutch neighborhood-nursing organization Buurtzorg grew from 10 employees to 7000 with a market share of 75% within 7 years. These are examples for organizations which differ fundamentally from well-known organizational structures. Among others, three central characteristics of them may be summarized as follows (Hamel, 2011, Laloux, 2014):

To serve the *purpose* or mission of the organization provides the leading orientation for every decision and action. Whether an idea or argument is good or bad will be judged by this estimation. Every employee at Morning Star for example “is responsible for drawing up a personal mission statement that outlines how he or she will contribute to the company’s goal of `producing tomato products and services which consistently achieve the quality and service expectations of our customers.” (Hamel, 2011).

The *power* to take decisions is allocated to those people in the organization who are competent for it. Employees choose how much money to spend on what, even including salaries. They are responsible for acquiring the tools needed to do their work. Employees even define the strategy. There are no titles nor promotions because there is no hierarchy. In such organizations there are no managers anymore. However, everybody is a manager in terms of competencies to decide. One employee puts it like that: “I’m driven by my mission and my commitments, not by a manager.” (Hamel, 2011).

Employees *negotiate responsibilities* with their peers. They apply market-style practices within their relationships. If they want to make investments larger than what they are able to finance themselves they have to convince colleagues to lend them the rest. “There is a social risk in doing something your colleagues think is stupid.” (Hamel, 2011).

People do not have to fit into predefined boxes. They are expected to take on bigger responsibilities as they develop further competencies. Therefore there are *broader and more complicated roles* than elsewhere (Hamel, 2011).

It may be concluded that in such organizations the employees have a lot of freedom to do what they are convinced is the best thing to serve the purpose. Simultaneously they have peer-negotiated responsibility for the results of their actions. There are almost no rigid structures like hierarchy and status markers which keep them from fulfilling their mission.

Such a fundamental shift of organizational structure and culture also has its drawbacks. It usually takes a quite long time to get accustomed to it and to get

productive. Not everybody is willing to enter such an organization or suitable for it. Employees who are used to working in a rigid hierarchical environment may not be able to adjust. This selection criterion is difficult to assess and constitutes a limitation for growth in terms of number of employees. Without a hierarchical ladder to climb, employees may also find it difficult to evaluate and communicate their progress relative to peers. That can become a handicap when they want to switch companies. Peer-negotiated responsibility requires explicit feedback in case a counterpart did not meet his / her promises. This may be challenging for employees on both sides, but it constitutes a core factor for productivity (Hamel, 2011).

It appears to be evident that such a new type of purpose-driven organizations requires people with the ability and willingness to manage their actions and competencies quite independently and to coordinate them with colleagues. On top of their professional expertise they have to establish self-management and self-leadership abilities. Self-leadership may be defined as “a comprehensive self-influence perspective that concerns leading oneself toward performance of naturally motivating tasks as well as managing oneself to do work that must be done but is not naturally motivating” (Manz, 1986: p. 589). In addition to self-management, the concepts of the “what” and “why” are covered. Through the focus on the “why” and “what” of self-influence, individual self-leaders address the underlying reasons for effort and behavior (Manz, 2013). Increased self-leadership corresponds with better affective responses and improved work performance (Stewart, Courtright & Manz, 2011).

In the following sections of the paper I will analyze the relevance of human perception to self-leadership and derive adequate guidelines for employees. Conclusions for purpose-driven organizations will be drawn.

2. PERCEPTION

“All you have is what you notice“

Roshi Baker

Perception is the main basis for learning and behavior. For us as human beings our abilities to perceive the environment and our own bodies with our senses are very limited in quantity and quality. For instance we are not able to perceive magnetic and electric fields like some birds and fish, UV light and carbon dioxide like bees and ultrasound like bats (Chittka & Brockmann, 2005).

Perceiving starts with input signals from the senses which are handled in a cascade of cortical brain regions (bottom-up). This flow appears to be in a constant interaction with feedback from the brain facilitation (top-down). The brain first uses rudimentary signals to derive analogies, linking that input with representations in memory. Therefore we may understand perception as a mutual activity of bottom-up and top-down processes. The latter seems to build upon

expectations of the most likely interpretations of the input image. The top-down process facilitates recognition by substantially limiting the relevant object representations. This provides focused predictions which facilitate perception and cognition (Bar, 2007). Recognition thus rather resembles an iterative approximation than an exact matching process. It builds upon what is already known.

Limitations of our senses like the blind spot in our eyes where the nerves leave the eyeball are automatically corrected by the brain. We do not see anything missing or unusual at this point. “We do not see that we do not see” (von Foerster, 2003, p. 284).

To focus on something means overlooking almost everything else. An experiment shows that even a highly salient human in a black gorilla suit walking through a scene showing off beating her breast may be invisible for viewers for this reason (Most, Scholl, Clifford & Simons, 2001). Also substantial changes in images are not recognized under certain circumstances by many observers, which is an effect known as change blindness. Change blindness seems to be very counterintuitive because most people firmly believe that they would notice such large changes – a kind of “change blindness blindness” (Simons & Rensink, 2005, p. 17).

We may conclude that human perception is very limited in quantity and quality, highly subjective, iterative and approximate. It is strongly influenced by our internal patterns which consist of both a legacy of evolution and a product of personal history. The limitations of our perception are easily overlooked. We do not see what we do not see.

3. AUTOMATICITY AND CONSCIOUSNESS

*“The intuitive mind is a sacred gift and
the rational mind is a faithful servant.
We have created a society that honors the servant
and has forgotten the gift.”*

Albert Einstein

People who recalled an experience of social exclusion, experience a lower room temperature than others who recalled an inclusion experience (Zhong, Chen-Bo, & Leonardelli, 2008). Watching pictures of items drawn from business contexts (e.g. briefcases, boardroom tables, fountain pens, etc.) leads to a more competitive behavior than watching pictures of neutral objects like cups (Kay, Wheeler, Bargh & Ross, 2004). These are just a few examples of very many studies where the so-called priming effect takes place in a statistically significant way: A stimulus unconsciously and automatically triggers the response to a later stimulus. It is suggested that these effects increase with the degree of ambiguity

(Kay et al., 2004). Hence priming seems to be an unconscious solution to fill the disturbing gap of uncertainty.

Human decision-making was found to be distorted from rationality in many ways (e.g. Ariely, 2008). One example of many is myopia, the tendency to search for immediate gratification and to fail in long-term planning (e.g. Hardin & Looney, 2012). Even if people know that biases may occur in human judgment, they tend to unconsciously ignore the possibility to be biased themselves (Pronin, Olivola & Kennedy, 2008). Regarding business plans, it was found that there is a cognitive bias to accentuate the positive aspects, which is called planning fallacy (Lovallo & Kahneman, 2003). Thus there are many indications that we tend to favor everything which attunes us in a positive mood and flatters our ego: seemingly immaculate perception, unbiased judgment, very promising business plans, etc.

These examples show that unconscious mental processes exhibit a strong distortive influence on behavior and decision-making. However, it is very efficient and fast to process inputs automatically. Daily activities like driving a car mainly rely on automatic and unconscious processes which are believed to have high capacity and to be fast and independent of the central working memory (e.g. Evans, 2008). Novice golfers for example perform more poorly under time pressure whereas skilled golfers even benefit from reduced performance time (Beilock, Bertenthal, Hoerger, & Carr, 2008). Automatized, unconscious processes allow us to rapidly and holistically interpret our environment, to process these interpretations and to act.

Unconscious effects “are ubiquitous and pervasive across the major forms of psychological phenomena: appraisal and evaluation, motivation and goal pursuit, social perception and judgment, and social behavior. This research has been impressive in demonstrating the wide scope and reach of nonconsciously instigated influences on our daily lives” (Bargh, 2006, p. 148). They even dominate behavior according to results of empirical research: “Everyday intuitions suggest full conscious control of behavior, but evidence of unconscious causation and automaticity has sustained the contrary view that conscious thought has little or no impact on behavior. [...] conscious causation is often indirect and delayed, and it depends on interplay with unconscious processes” (Baumeister, Masicampo, & Vohs, 2011, p. 331).

Consciousness was not necessary for the survival of life as such. This ability probably appeared very late during the evolution of life. Nevertheless it seems to be the key factor for at least many of the successes of mankind: It allows us to integrate behavior across time. It enables us to benefit from past events for present and future events. Furthermore, consciousness introduces social and cultural factors. Conscious thought helps us to deal with multiple alternatives and conflicting possibilities (Baumeister, et al., 2011). Another powerful aspect of consciousness is self-awareness, which means becoming the object of one’s own attention. To have self-awareness and to be able to experience your own mental states is a logical basis for making inferences

about other people's states of mind. The theory of mind signifies "the cognitive capacity to attribute mental states to self and others" (Goldman, 2012, p. 402).

We may conclude that the unconscious inevitably influences our awareness without being noticed. It offers fast, comprehensive and powerful processing but is not directly manageable. Consciousness and self-awareness first of all allow us to identify inconsistencies within ourselves and with the external context. "[M]ost and possibly all human behavior emerges from a combination of conscious and unconscious processes" (Baumeister, et al. 2011, p. 354).

4. HOMEOSTASIS AND SELF-REGULATION

*"Between stimulus and response there is a space.
In that space is our power to choose our response.
In our response lies our growth and our freedom."*

Viktor E. Frankl

An organism has to maintain more or less stable internal conditions despite a changing external environment. The self-regulating process which "maintain[s] stability while adjusting to changing conditions" (Billman, 2013, p. 159) is called homeostasis. Regarding physiology, e.g. blood pressure, breath, etc., this is an unconscious automatic process.

Humans may achieve the ability to regulate themselves mentally as well. Self-control and self-regulation are crucial for a person's ability to deal with emotions. They include the ability to alter one's own responses, e.g. to inhibit emotions, to modify one's thoughts, feelings and behaviors. There is strong empirical support for the assumption that these capabilities play an important role for the whole life. "Insofar as self-regulation liberates human behavior from being driven solely by external stimuli and automatic, reflexive, or instinctual responses, it contributes greatly to the diversity and flexibility of human behavior." (Muraven, Baumeister & Tice, 1999, p. 446). The presence of these abilities in childhood correlates with attributes like high socio-economic status, good health and a low percentage of criminal incidents and pathology as adults. People who manage to acquire these abilities during their life-times still may profit from the positive effects (e.g. Moffitt et al., 2011).

5. USING THE BEST OF BOTH WORLDS

*"To play a symphony
you have to tune your instruments."*

Ivar Vehler

Summing up we may say that unconscious and conscious processes exhibit characteristics which represent strengths and weaknesses relevant to

specific contexts and objectives. Unconscious, intuitive mental processes are automatic, effortless, associative, rapid and parallel and result in skilled action. Consciousness by contrast is controlled, effortful, deductive, slow, serial, self-aware and results in rule application (Kahneman & Frederick, 2002).

Being aware of the strengths and weaknesses of the conscious and the unconscious allows us to consciously integrate them into real life and to activate them appropriately (e.g. Nordgren, Bos & Dijksterhuis, 2011). Some examples are given in the following.

It is a truism that you should think before doing something. However, in most day-to-day cases we do not. Usually we just act automatically like we are used to, e.g. when brushing our teeth or driving a car. If something unexpected arises like toothache or surprising roadworks, we have to stop automaticity and start to think about what to do. We tend to use consciousness as rarely as possible due to its demand in energy and the limited capacity of our working memory.

We know that thinking has its merits, but thinking too much can result in drawbacks. It potentially reduces preference consistency (Nordgren et al., 2011) and decision satisfaction (Ariely & Norton, 2011), e.g. decisions that would provoke arguments lead to favoring other decisions which are easy to explain to others but are not consistent with our own feelings and preferences anymore.

Another very common aspect of thinking too much is to address too many attributes and options. Basically, an increase in available information improves decision accuracy but not infinitely. In the case of a mismatch between the amount of information input and the cognitive abilities we may call it a situation of information overload. If someone has to handle too much information, accuracy decreases (see figure 1, Eppler & Mengis, 2004, p. 326).

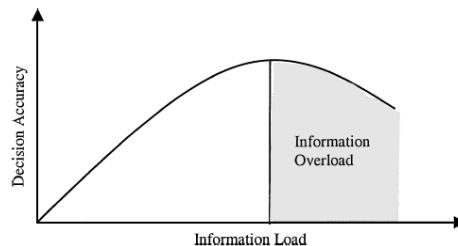


Figure 1. Information Overload

Focusing perception is obviously necessary for analyzing, planning, etc. Otherwise, focusing leaves out a lot of the context which could be important. Thus non-focusing may also be advantageous. Mind-wandering for example has positive effects like making diverse perspectives visible and fostering creativity (Schooler, Mrazek, Franklin, Baird, Mooneyham, Zedelius, & Broadway 2014). Automatic, spontaneous associations build upon unconscious resources. They offer a potential source for new perspectives and alternative approaches.

The concept of ‘sleeping over a problem’ is more than just a manner of speaking. During sleep, when consciousness and focus are mainly deactivated, memory is reprocessed which appears to be an important factor for how our memories are formed and ultimately shaped (e.g. Stickgold, 2005). Sleep shapes internal structures and helps to process contents unconsciously.

For both individual and collective intentions it may be concluded that “... the decision maker might be wise to ask both questions - ‘Am I thinking too much? Am I thinking too little?’” (Ariely & Norton, 2011, p. 44).

6. DEIDENTIFICATION

*“What happens when people are ...
over-attached to their creation and ideas? ...
What is my new role in life?”*

Dan Ariely

It appears to be logical that not only planning for the future and learning from the past are crucial for private life and leadership. Also being able to become aware of the present moment is important. To perceive what is actually going on in an open-minded, comprehensive and multidimensional manner (facts, emotions, desires, fantasies, weak signals, intuitions, etc.) means detaching oneself at least partially from what has been taken for granted up to now. The abilities to be patient and to tolerate ambiguity, frustration and anxiety are not only required to identify a good point of time for action but also to avoid bustling and to send signals of calmness and firmness to other people and colleagues (Simpson & French, 2006). Practices like individual self-dialogue and mental imagery may increase mental performance, show positive effects like enthusiasm, job satisfaction, and self-efficacy, and decrease negative affects like nervousness (Neck & Manz, 1996). It is also found that methods to foster mindfulness and contemplation may change brain and immune functions in a positive way. By applying them it appears to be possible to enhance a sense of equanimity and clarity, and increase empathy and relational satisfaction (Kabat-Zinn, 2003; Siegel 2007).

Summing up, we may say that detachment and deidentification from present convictions and expectations releases perception for what is actually out there. It releases awareness of something unknown up to now. This potentially could even open a door for the self to develop further (e.g. Graves, 1966; Loevinger, 1997; Cook-Greuter, 2000; Beck & Cowan, 1996; Cowan & Todorovic, 2000; Rooke & Torbert, 2005). To watch earth from outer space proved to be an eye opener for some astronauts as well as for observers watching it on TV. This was called the big picture or overview effect (White, 1998). Thereby individual minds tune into a global context.

7. ORIENTATION FOR SELF-LEADERSHIP

*“A lasting, committed daily practice
is the only way to produce
sustained transformation.”*

Wilber / Patten / Leonard / Morelli 2012

Based on the arguments demonstrated above, the following points for orientation show – like light-houses – the direction towards more connected and integrated self-regulation, perception and behavior. I propose these guiding principles to support internal and external balancing and to improve adaptability:

Foster self-perception and self-awareness: Train the ability to mentally step outside of yourself and to become aware of inner feelings, desires, memories, tensions, weak signals, intuitions, etc. Comprehensive self-awareness is required to become the leader of yourself. Become aware of and appreciate your personal (or organizational) “instruction manual”, the unique characteristics of your internal structures: What are your strengths and weaknesses? How did your history lead to the current status? What are you able to appreciate? What is “just” a result of history? What do you want to change? How do you perceive your own body? Does it tell you something? What are your core topics and core purposes?

Avoid data overflow, and search for blind spots: Keep your capacity for information-processing in mind, reduce noise that is data which cannot be processed anymore and confuses instead of improving orientation. Reflect the impact of quantity and quality of external stimuli on your internal state.

Invite conflicting perceptions and perspectives, guide your ways in unusual directions every now and then, try to appreciate contradiction and to examine paradoxes instead of denying them. Open yourself up for detours and for getting touched by something unknown. Connect yourself to the bigger picture.

Shape your internal structures, train self-regulation, find your personal ways for internal balancing and regeneration: Usually we do what we are used to. Therefore it is important to take care of what we get used to. Design your habits consciously. Establish your ability to consciously deal with emotions, deliberation, desires, memories, fantasies, weak signals, intuitions, etc. Maybe you decide to let them naturally flow or to direct them in order to prevent damage. Self-regulation is a precondition to avoid troublesome and devastating decisions and irreversible damage. Find your ways to come back to an appropriate level of internal tension somewhere between burden and floppiness.

Consciously invite your unconscious, the powerful automatic resources: Create space for both focus and mind-wandering, for closed and open modes, try to articulate and integrate suppressed perspectives, provide space for weak signals, for perceptions of pressure and contradiction, for dreams and

spontaneous associations, use sleep for unconscious processing, leave open spaces, enjoy the silence.

Integrate analysis and contemplation: Complexity may be approached in two ways: first to divide it into pieces analytically and second to dissolve the ego in it without words. The first one is easily traceable and communicable. The latter allows for taking advantage of much more diverse, comprehensive, yet implicit, subjective and unconscious resources within oneself and collectives than the explicit, analytical one. Individual experiences during contemplation can partly be made explicit, individually and collectively.

Aim at appropriate modesty based on limited human resources on the one hand and almost unlimited complexity on the other: As human perception and its processing are very restricted in relation to the complexity of the world, our ability to understand and control even a small fraction of the environment will always be extremely limited and iteratively influenced by developments elsewhere. The impact of narrow-minded actions may be shattering.

Aim at appropriate courage based on resonance of the inside and the outside: Explore the unknown possibilities mindfully. Listen carefully whether self-perception and perception of the surrounding field resonate with each other. Listen to your inner voice and accept it as one instrument of an orchestra. There are memories, rationality, emotions, desires, phantasies and weak, unique signals from the depth. Train to distinguish those various voices. These multifaceted voices are not reality, they are not the truth, they are what they are. Accept this orchestra as it is: If it does not communicate at all, if it communicates in a gentle or vague manner, if it is very clear and strong and does not leave you in any doubt.

Aim at detachment and deidentification from existing internal structures: “Yes, that’s the way how I (we) act at the moment ... Yes, that’s the way how I (we) decide at the moment ... Yes, that’s what I (we) believe at the moment. All this is not me (us). What I (we) am (are) at the moment does not limit myself (ourselves). What I (we) am (are) right now does not restrict what I (we) will become to be right afterwards or in weeks, months, years, decades.”

Step into and continue your personal way to connect yourself practically to the **bigger picture** and support the evolvement of life as such, e.g. through interaction with the younger or elder generation or in nature.

8. CONCLUSIONS

In this article some selected findings on human perception and cognition are briefly depicted. On this basis guiding principles for individual behavior were derived. They are applicable to day-to-day life and promise to reduce unproductive and devastating ways of homeostasis. To follow these guidelines allows more comprehensive integration of internal and external stimuli and

fosters more sustainable decision-making and behavior. If trained and automatized in practice, they appear to increase the adaptability of individuals, teams and organizations.

In purpose-driven organizations with distributed authority essentially any employee fulfills management tasks. Therefore it may be found advisable for such organizations to support their employees in the development self-leadership competencies. They seem to be essential for the execution of their professional role. The employees have need for the competency to perceive stimuli around and within themselves and to integrate them into their behavior and decision-making. Additionally in such organizations the lack of status markers and the focus on participation could be challenging for newcomers. To be able to deal with a need for self-affirmation and with the desires of the own ego could also be crucial. The development of self-leadership capacities could make it easier for new employees to get accustomed to a fundamentally different organizational culture.

Further reading: the author will publish a book on the topic of this paper in 2015

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ENTREPRENEURIAL LEADERSHIP AT A CROSSROADS

JEL classification: L29, M19

Abstract

There is confusion in the extant literature over the connection of entrepreneurial leadership and leadership. Is entrepreneurial leadership a theory or a style? Is its focus on setting direction, gaining commitment and achieving results? Or, is it focused on influencing others or recognizing and exploiting opportunities? This paper attempts to answer those questions and to position entrepreneurial leadership as an adaptable, creative, and innovative leadership style that matches the dynamism of today's organizational environments. The paper is structured as follows. First, we situate entrepreneurial leadership within the extant theoretical leadership literature. Then, we present the definitional confusion within the literature and describe two paths. One road leads to an independent style of leadership. The other leads to an integrated leadership theory that melds it with other forms of leadership. We end by suggestion that entrepreneurial leadership research return to its roots and refocus on the entrepreneur – someone who sees, recognizes, and exploits opportunities without regard to resources - as a leader of ideas, projects, individuals, teams, and perhaps organizations.

Key words: vertical and horizontal leadership, entrepreneurial leadership, entrepreneurship

INTRODUCTION

Leadership is generally viewed as a social influence process whereby a “leader” attempts to influence the activities of individuals and groups. The leader’s work focuses on three core tasks: establishing direction (e.g., clarifying the big picture, crafting a vision, and creating strategies); connecting with people (e. g., creating conditions that support seeking commitment, building teams and coalitions); and focusing on results (Pisapia 2009). On the surface these tasks are uncomplicated but complexity comes when people, interests, and context enter the equation.

Vertical and horizontal leadership

The extant leadership literature bifurcates around notions of vertical and horizontal leadership influence actions and strategies. Vertical theory frames leadership tasks as the relationship between leaders, followers, and common goals (Bass 1990; Blake and Mouton 1964; Burns 1978; Fiedler 1967; House 1971; Triandis 1995). Vertical forms of leadership use discipline and control in the form of rules, procedures, or values to reduce complexity. Command, control, and persuasion tactics are the levers of change. There is little, if any, focus on external organizational context (Boal and Hooijberg 2000; House and Aditya 1997). As seen in Figure 1, vertical leadership theory focuses on the Superordinate-Subordinate continuum. Since these leadership forms focus less on external contingencies and more on internal needs for efficiency and effectiveness, they thrive in stable environments and are attenuated in complex environments.

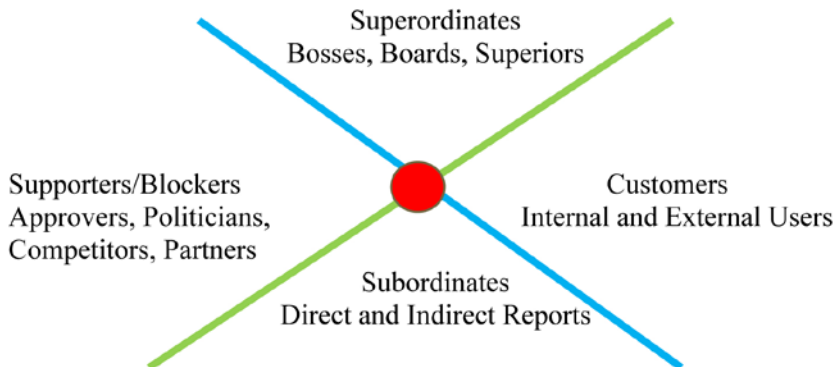


Figure 1 The audiences for vertical and horizontal leadership styles

Horizontal theory suggests that when supporters, blockers, approvers, and customers are added to the vertical components as seen in Figure 1, new leadership skills are required since the power of positional leaders is diluted. These new skills are essential to create direction, alignment, and commitment,

work in teams, and develop community in pluralistic environments. This move to new skills and forms are suggested by distributed leadership theory (Cox, Pearce and Perry 2003; Gronn 2002; Pearce and Conger 2003); complexity science (Goldstein, Hazy and Lichtenstein 2010; Lichtenstein, Uhl-Bien, Marion, Seers, Orton, and Schreiber 2006; Uhl-Bien, Marion and McKelvey 2007); and relational theories (Drath 2001; McNamee and Gergen 1999; Uhl- Bien 2006). Horizontal leadership theory exhibits the qualities that hold the promise for greater effectiveness in times of ambiguity and uncertainty. Horizontal leaders execute these coordination and collaborative influence actions by focusing on the process more than the content of the work. The key ideas supporting vertical and horizontal leadership approaches are depicted in Table 1.

Table 1

Vertical and Horizontal Forms of Leadership

Vertical Forms of Leadership		Horizontal Forms of Leadership	
Supervisory (Traditional Leadership)	Transformational Leadership	All Echelons Strategic Leadership	Entrepreneurial Leadership
Hierarchical; command and control	Hierarchical; heroic , values based leadership	Horizontal; coordination and collaboration	Flattened leadership; empowerment and autonomy
Establishes vision and gains compliance	Establishes vision and seeks “buy in”	Establishes direction and aligns members and structures toward direction	“Spots opportunities and inspires others to ‘join the cause”
Develops culture of limited empowerment	Develops culture of high expectations	Develops supportive culture focused on outcomes, tolerance for ambiguity	Develops culture of risk-taking; innovativeness; & proactiveness
All authority in central leadership	Authority centered in heroic leader	Authority dispersed	Authority centered in entrepreneur
Many rules, regulations, procedures, guidelines	Emphasis on trust, empowerment, & autonomy	Minimum specifications, autonomy & flexibility	Emphasis on autonomy and flexibility
Focus frame sustaining change	Focused frame breaking change	Focus frame sustaining and breaking change	Focus frame breaking change that creates value.
Focuses on internal – processes – procedures to ensure efficiency	Focuses on internal – improving individual performance	Focuses on internal and external changes and adaptation	Focuses on external demands, proactively seeks to create opportunity; first to market
Exploitation	Exploitation/Exploration	Exploration/Exploitation	Exploration/Exploitation
Managing dominant	Leading dominant	Leading/Managing co-dominant	Leading dominant

The elements at the center of leadership theory are vision and influence. Vertical theory, whether in the form of supervisory or transformational leadership, works less well in environments characterized by chaos, ambiguity, uncertainty, and change (Kotter 1996; Pisapia 2009; Quinn 1996). In the emerging new world, organizational leaders still have to deal with superordinates and subordinates (the vertical continuum), but also with customers, approvers, politicians, competitors, and partners who support or block initiatives (see horizontal continuum on Figure 1). Given this reality, many academics as well as practitioners have called for new leadership styles which are more adaptable, creative, and innovative (Boal 2004; Drath 2001; Jamrog, Vickers and Bear 2006; Martins and Terblanche 2003; Senge 1992; Van Knippenberg and Sitkin 2013). Two such styles have been offered: strategic leadership (Burgelman 2014; Hitt and Ireland 2002; Pisapia 2009), and entrepreneurial leadership (Dess et al. 2003; Fernald, Salomon, and Tarabishy 2005; Ireland, Kuratko, and Covin 2002; Kuratko 2007; Gupta, MacMillan, and Surie 2004).

As seen on Table 1, entrepreneurial leadership shares many qualities with transformational and strategic leadership, emphasizing the development of a shared vision, promoting the empowerment and autonomy of followers, tolerance of ambiguity, and flattening the organization to allow leadership to permeate the organization at all levels. However, whereas strategic leadership focuses on environmental fit and competitive advantage, entrepreneurial leadership focuses on innovation and creating value.

Entrepreneurial Leadership

Entrepreneurial leadership (EL) exists at the crossroads of leadership and entrepreneurship. Some would define it just as another form of leadership. For example, many suggest that EL is the process of creating an entrepreneurial vision and inspiring a team to enact the vision in high velocity and uncertain environments (Chen 2007; Covin and Slevin 2002; Ireland and Hitt 1999; Kuratko 2007; Surie and Ashley 2008). There are other interpretations. For Ireland, Kuratko, and Covin (2002), and Sharma and Chrisman (1999:18), EL is seen as the process whereby an individual or group of individuals create a new organization, or instigate renewal or innovation within an existing organization (1999:18). For Dess et al. (2003), entrepreneurial leaders establish the conditions conducive to role performance and social exchange (p. 352). Gupta et al. (2004, p. 220) suggest that building commitment by forging the capacity in the organization for innovation, risk-taking, and proactiveness are important cultural features. These definitions address the common components of leadership – vision, connecting, influencing, and persuading people – creating the conditions that lead to sustained, not random success. But do they describe EL?

Hence, the second line of thought suggests that EL refers to entrepreneurs who work in ambiguous and uncertain environments within a

formalized organizational structure, but use the skills and approaches normally expected of an entrepreneur: identifying opportunities, assuming calculated risks, proactively seeking out and recognizing opportunities, and creatively pursuing innovations which create value (Tarabishy et al. 2005, p. 27). For instance, Ireland, Hitt, and Sirmon (2003) suggest that EL (which they call strategic entrepreneurship) is the ability to influence others to manage resources strategically in order to emphasize both opportunity-seeking and advantage seeking behaviors (p. 971), thus indicating those entrepreneurial leaders must be ambidextrous using both exploitation and exploration as their main strategic tools. This definition would enable entrepreneurs working in structured firms to be strategically entrepreneurial (Covin and Slevin 2002). However, this line of thought also presents difficulties. While most entrepreneurs work in ambiguous situations, not all work in formalized structures. They may be entrepreneurial but not entrepreneurial leaders.

The third line of thought attempts to come to grips with the key elements of entrepreneur theory. Shane and Venkataraman (2000, p.218) say entrepreneurship involves the nexus of three phenomena: the presence of an opportunity, the presence of enterprising individuals who can “see it” and who are capable enough to respond to it irrespective of the existing resources. The weight of scholarly opinion (Busenitz and Barney 1997; Kaish and Gilad 1991; Rosenberg, 1994; Sarasvathy, Simon and Lave 1998; Shaver and Scott 1991; Stevenson, Roberts, and Grousbeck 1989; Venkataraman 1997) places the entrepreneur, that person who can spot and pursue opportunities without regard to existing resources, at the center of EL.

These three attempts to define entrepreneurial leadership indicate different understandings at the heart of entrepreneurial leadership theory as well as general leadership theory. One result has been a research agenda that is missing the mark. For instance, considerable effort has been used to study the entrepreneurial behaviors and attitudes of executives (Cogliser and Brigham 2004; Covin and Slevin 2002; Fernald, et al. 2005; Gupta et al. 2004; Ireland, Hitt, and Sirmon 2003; Lumpkin and Dess 1996); and comparisons of leaders and entrepreneurs (Baumol 1968; Vecchio 2003). What is missing is a research agenda focused on the entrepreneur – someone who sees, recognizes, and exploits opportunities - as a leader of individuals, teams, and organizations.

The Crossroads

The elements at the center of entrepreneurial theory are growth and wealth creation, and opportunity recognition and exploitation without regard to the resources. Given the confusing nature of the entrepreneurial leadership definitions explored in previous paragraphs in regard to these central elements, we lean toward Vecchio’s (2003) earlier conclusion that leadership theories specific to entrepreneurship have yet to be empirically established;

“entrepreneurship is simply a type of leadership that occurs in a specific setting” (p. 322) either inside or outside existing organizations (Kuratko 2007).

Hence, we believe that entrepreneurial leadership as a concept is at a crossroads. One uses the path of leadership and focuses on an indirect approach of vision, process, influence, and conditions to achieve organizational outcomes. The second path refocuses entrepreneurial leadership on its roots: the entrepreneur who makes a direct difference in growth and wealth creation by recognizing and exploiting opportunities without regard to resources available.

At the center of this controversy are the words entrepreneur and entrepreneurship. If one defines entrepreneurial leadership in terms of the entrepreneurial firm then entrepreneurial leadership’s task are to inculcate organization wide reliance on entrepreneurial behaviors of risk-taking, innovativeness, and proactiveness that rejuvenates the organization. If, however, one defines entrepreneurial leadership in terms of entrepreneurial people then the tasks are to employ causal and effectual thinking skills and behavioral characteristics (risk-taking, innovativeness, and proactiveness) to take advantage of opportunities by innovating to create added value, wealth, or social benefits. If one defines entrepreneurship as entrepreneurial people, then they are talking about entrepreneurship not leadership. In either case, they are talking identifying and exploiting opportunities.

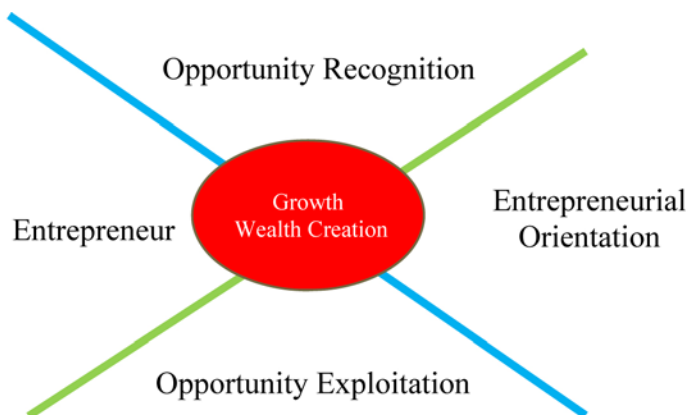


Figure 2 The key elements of entrepreneurial leadership

A central argument for entrepreneurial leadership is that once the future is created, it needs to be sustained. The problem is that the attributes of entrepreneurial leaders - calculated risk-taking, propensity for innovativeness, proactive behaviors - do not lend themselves to sustained innovation. Entrepreneurs are consistently reinventing the future by seizing opportunities and filling previously unknown niches by creating goods and services that add value to current markets. As integral as this role is to navigating the complexity and

ambiguity of postmodern society, there remains a need for leadership qualities that allow organizations to adapt to changing environmental demands. Thus, if we take entrepreneurial leadership to mean proactive and risk-taking innovators, it is not substantial enough in and of itself to sustain success in an organization. Once the opportunity is captured and the innovation reframes the market, a truly entrepreneurial leader will be searching for the next opportunity to innovate and bring a new service or product to the market. However, while this opportunity is being sought, the organization still has to sustain itself and adapt, especially as previous innovations become commonplace. If Apple sat back and did not improve the iPhone while developing the iPad, or improve the iPhone while Androids became commonplace, they would have fallen behind emerging competitors.

The question we pose is this: Does a leader whose attributes allow him or her to effectively seek out and exploit previously unforeseen opportunities to create a new future have the leadership qualities required to sustain and grow an organization once the future is no longer new and the environment changes? Current entrepreneurial leadership theory does not address these issues. We would, however, agree that organizations and their leaders can adopt an entrepreneurial style much like servant leadership. Entrepreneurial leadership as a style rather than a theory all its own fits nicely within an all echelons approach to strategic leadership. In this way the leader and their staff are working entrepreneurially some times, and at other times they are working strategically; adjusting the firm to its environment. They exploit and then explore.

We propose that at the center of entrepreneurial activity is an entrepreneur bringing a new venture into existence by starting with what they have, sharing the risk by finding likeminded individuals who pre-commit, determining what they can afford to lose, and co-creating the future (Sarasvathy 2001). Like the entrepreneur, the entrepreneurial leader identifies a new direction, builds a team, and brings a new idea, methods, or product to fruition... but they also must face changing internal and external conditions to which they must adapt their organizations, whether they be opportunities or threats. To understand entrepreneurial leadership one does not focus on adapting their organizations, they focus on using predispositions, behaviors, and skills that are used to spot opportunities and exploit them irrespective of existing resources and contexts. Hence, in order to create the future, and then sustain success by adapting the organization to meet changing environmental demands, we see the need to unite the entrepreneurial leadership style with strategic leadership theory.

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ORGANISATIONAL RESILIENCE: BUILDING BUSINESS VALUE IN A CHANGING WORLD

JEL classification: M10, M19

Abstract

As an indication of development ecological, economic and social frame conditions change due to global adjustments. More competition, open markets, changes in political frameworks, structural changes etc. form the challenges for economies as a whole, organisations and employees. On the whole, however, the discussion about challenges often forgets the consequences for 'organisational' resilience, i.e. an organisation's capacity to anticipate disturbance, adapt to events, and create lasting value and thrive in a changing world. The notion of a resilient organisation is an emerging concept to clarify and cope with the modern day pace of change. By linking resilience theory with the sustainable transition process of organisations, this contribution has attempted to explore opportunities for and barriers to the diffusion, institutionalisation and implementation of resilience concepts from an integrative perspective. Furthermore, this contribution works toward a unified theory of resilience to help embrace and manage organisational change effectively when considering the concept of a sustainable future. Recommendations are provided for continued research to achieve progress in the modelling of organisational resilience.

Key words: organisational resilience, theory of resilience, building resilience

1. INTRODUCTION

“That which does not kill us, makes us stronger.”

Friedrich Nietzsche

Looking at today’s world there are increasing economic, social and environmental challenges, turbulences and uncertainties which cause disturbances and discontinuities for organisations (Burnard, Bhamra 2011). Organisations struggle and continuously adapt in order to flourish despite these disturbances, be they man-made or natural (cf. Stephenson et al. 2010).

Those organisations which are capable of surviving over time in the face of current and future challenges are referred to as “resilient organisations”. The concept of resilience within organisations may offer a potential framework to overcome breakdowns, disturbances and discontinuities and allow for organisational development. Resilient organisations are essential as they contribute towards the on-going viability of the economy and the wider community: a crucial step towards creating a society which is resilient itself (cf. McManus 2008) In fact it can be argued that resilient organisations and communities or societies are two sides of the same coin (Stephenson et al. 2010).

The concept of ‘resilience’ as a formal paradigm of organisations is still relatively young, but continues to gain momentum in academia. In responding to any potential barriers such as expense, engagement or cultural change, it is important to note that the various elements of a resilient organisation are all fundamental to an effective and efficient business that is cognisant of risk, crisis management, business continuity planning, organisational leadership and contingency based management (Stephenson et al. 2010). Moreover, a resilient organisation’s objectives and strategies will not conflict with its overall business goals but will complement them. This makes resilience a multifaceted and multidimensional as well as very insightful concept (Ponomarov, Holcomb 2009).

As all organisations face unique risk landscapes, resilience is seen as both an outcome and a fundamental part of the governance of an organisation. The resilience of an organisation is, therefore, made up of the contribution of a wide range of different principles. Moreover, organisational resilience is not a one off program or a management system that can be developed and then reviewed annually or as required. It is an approach that takes time to develop and as indicated in this paper, is not ‘one size fits all’, but can be outlined in a process model.

The overall aim of this paper is to assist practitioners in understanding organisational resilience as well as to identify research gaps in this domain. This paper works toward a unified process model of resilience to help embrace and manage organisational change effectively when considering the concept of a sustainable future. In this paper we attempt to integrate findings from research in socio-ecological systems and organisations in order to conceptualize

organisational resilience and to contribute to a better understanding of the evolution of resilience and its relationship to organisational structure, processes and strategy.

2. ORGANISATIONAL RESILIENCE

“It is not the biggest, the brightest, the best that will survive, but those that adapt the quickest.”

Charles Darwin

The new buzzword or the new imperative in organisation board rooms these days is ‘resilience’ (Nelson, 2010). Although there is growing recognition of the concept within academic publications, the concepts and features of organisational resilience have so far remained largely undefined and ambiguous.

Currently resilience is an enormous, multifaceted and multidimensional concept (Ponomarov, Holcomb 2009), that is a contemporary issue in various scientific fields. We do not intend to make this into a historical overview, but the following are worth mentioning in connection with resilience: ecology (Holling 1996; Walker, Salt 2006), psychology (Masten 2001), socio-technical studies (Hollnagel et al. 2006), disaster research (Norris et al. 2008) and a broad range of organisational studies (Lengnick-Hall, Beck 2005; McCann, Selsky 2012; Sheffi 2007); additionally see also Alexander’s (2013) etymological journey, Kolar’s (2011) overview of the historical development and Norris et al.’s (2008).

In this paper we look at resilience from the organisational point of view. Organisations have to deal with situations in which discontinuities and disturbances occur due to turbulent operating environments (McManus, 2008; Burnard, Bhamra, 2011) within the given strategic environment (cf. figure 1). The operation and survival of an organisation may be severely compromised by such disturbances thereby subjecting an organisation to high levels of risk and an unpredictable future (Burnard, Bhamra, 2011). Resilience is seen for the moment as a potential answer going beyond survival to actually thrive, while still achieving one’s core objectives, even in the face of adversity by prospering in the face of current and future challenges or even past ones.

2.1 Concept

The concept of organisational resilience has become an important topic for discussion. Traditionally, resilience refers to the ability of an organisation to carry out its functions and return to a stable state after major disturbance or stress by considering the before and the during (Cumming et al. 2005; Gunderson 2000; Hearnshaw, Wilson 2013). In other words, resilience is about ensuring that an organisation is still able to achieve its core objectives in the face of adversity, before and after. Resilience suggests concepts of awareness, detection,

communication, reaction (and if possible avoidance), recovery and the willingness and capacity to adapt to changing contexts (McAslan 2010). A resilient organisation should be able to absorb disturbances or stresses through resistance or adaptation; maintain its basic services during a disturbance and; ‘bounce back’ after such a disturbance (Practical Action 2010). Resilience is not only about building back better, but also about transformation thereby requiring both innovation and creativity (Maguire, Cartwright 2008). Within this view, resilience involves a rejection of the status quo; a return to the pre-event situation would leave the organisation equally vulnerable to the next disturbance. The transformation view of resilience is concerned with concepts of renewal, regeneration and re-organisation (Folke 2006). According to Hamel, Valikanga (2003, p3) “*resilience is the ability to dynamically reinvent business models and strategies as circumstances change*”. This is seconded by Andrew Zolli; “*resilience is certainly a good goal for any organizations, however, it will never be achieved if an organization is — fragmented, silo, disconnected... organizations require a new way of thinking, there must be more coherence*”; as defined in complexity theory and system theory (cf. Dalziell, McManus 2004; Horne 1997; Riolli, Saviki 2003).

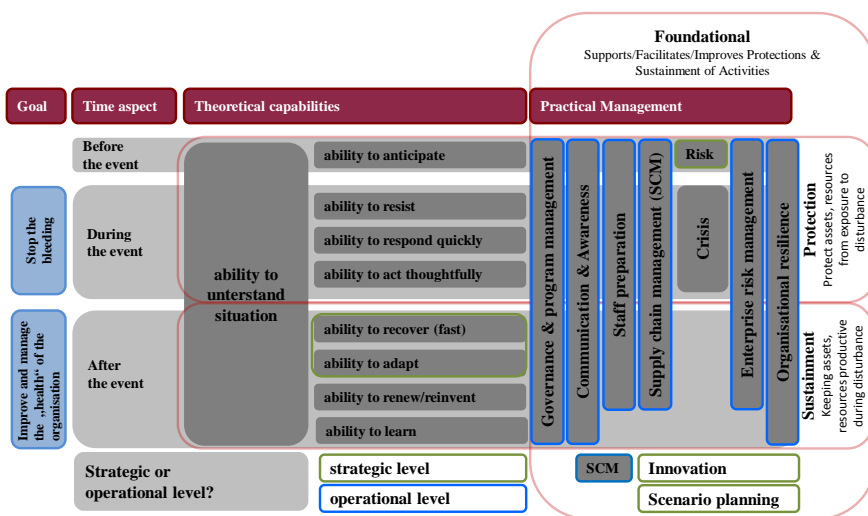


Figure 1 Diagram of interactions of all the operational resilience-management practices and the strategic ones

Source: adopted from Allen, Curtis, Mehravari 2014; Hillmann 2013

Resilience building is driven by a combination of competition, new technologies and the need to meet legislative requirements, management and production standards etc. Increasing organisational resilience also assists an organisation to identify its “keystone vulnerabilities”, “multiple capabilities” and to set priorities when realising business continuity and emergency management

planning (McManus, 2008). The advantages of becoming a resilient organisation are many. Resilience not only increases awareness of an organisation's operating environment but it also provides an organisation with the ability to act upon threats and challenges (McManus, 2008) and aim for a better future.

Furthermore, resilience, like sustainability or sustainable development (SD) before it, is an idea with potentially transformative power. The concept of resilience provides a fresh and useful perspective on SD – the notion that organisations and industrial development today must not jeopardize the vitality and prosperity of future generations. Resilience is a step change from SD; it is about the capability of an organisation to re-invent itself as circumstances change. It is heavily dependent on judgement at the highest levels in organisations as well as on employee attitudes as to the future and its implications. Improving the performance based on monitoring in a more sophisticated way, better comparisons and the use of forward-looking indicators is a start. It is critical to look beyond yesterday's measures of success and focus more upon the organisation's ability to adapt to what will make it successful in the future. But this is not enough. Monitoring must provide the information on sustainability – the ability of the organisation to sustain its current business model – and ensure that it is resilient (figure 1). Note that the word resilience goes much further than the more limited sense of being able to bounce back from events such as natural disasters or market adversity. Resilience is the organisation's capability to dynamically reinvent its business model as circumstances change. (PARC 2007, p14). This allows us to focus on resilience as a process which in turn draws our attention to the notion of resilient systems. Resilience is not a state but a dynamic set of conditions, as embodied within a system. Therefore, the concept of organisational resilience is only visible when considered under system theory. A general systems approach to looking at organisations has been suggested by a number of authors as a way to assess and measure resilience on an organisational level (cf. Dalziell, McManus 2004; Horne 1997; Riolli, Saviki 2003).

2.2 Gaps and limitations

So far research on organisational resilience has failed to reach a common definition on what resilience is, what it means for organisations and, more importantly, how organisations might achieve greater resilience (McManus et al. 2007, p.ii). To date organisational resilience seems to be viewed and operationalised very differently according to who is conducting the research and what is being researched (cf. Carmeli et al. 2013; Horne 1997; Lengnick-Hall, Beck, 2005; McAslan 2010; McManus 2008; McManus et al. 2007; Miller, Xiao 2007; Paltrinieri et al. 2012; Riolli, Savicki 2003; Sheffi 2007; Stephenson et al. 2010). The lack of an agreed conceptual framework is problematic as there is a varied use of the key terms such as 'protective factors' (Luthar, Cicchetti 2000; Luthar et al. 2000) and 'risk factors' used to evaluate the resilience process

(Windle 1999). Moreover, the considerable differences in the objectives and outcomes of interventions make it difficult to consider results collectively.

An apparent weakness in resilience literature has been its lack of attention to the social/cultural contexts in which disadvantaged individuals and groups work and live. Research on resilience and adaptation could, therefore, be strengthened by having greater space for the consideration of the situational influences that shape responses to adversity, together with increased opportunities for identifying and targeting risk and protective factors. Minority groups are reported to have been underrepresented in research on resilience, and it is also suggested that research on resilience has focused too much on individual factors and has not paid enough attention to situational influences on behaviours and adaptations. (Luthar, Cicchetti 2000; Miller 1999; Ryff et al. 1998)

In general, there seems to be a dearth of research on organisational resilience. Much of the research into organisational resilience that does exist examines resilience in the context of reactions to disaster events or periods of dramatic change. It could be argued that this may not capture resilience completely and findings could be showing how resilience overlaps with other constructs in these specific situations rather than showing how resilience impacts on specific organisational outcomes or bottom-line performance. Furthermore, there is no distinction in current studies made between the sizes of organisations or their respective sector (e.g. private, public or third sector). There is also little attention paid to culture in terms of whether the organisation is based in an Eastern or Western culture, which would potentially have quite considerable impact on beliefs, values and practices. This lack of distinction may confuse results as all of these factors may influence findings and make it difficult to suggest practical recommendations that apply to organisations 'across the board'.

3. A DIVERSITY OF KEY PRINCIPLES

"In order to form an immaculate member of a flock of sheep one must, above all, be a sheep."

Albert Einstein

Organisations maintain our economy; they provide jobs, goods, services and a sense of community. The increasingly globalised nature of the modern world has led to organisations facing causes and impacts of disturbances at different levels. Regarding preparation it is not enough to look only at the economic aspects of a disturbance. SD means that the latter are multidimensional. The different aspects of resilience in a system can be shown as a diversity of key principles (figure 2) as discussed below.

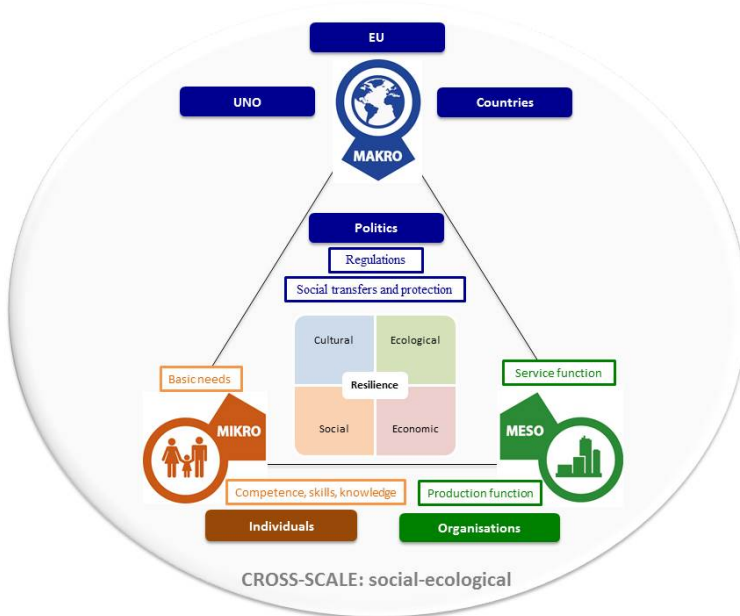


Figure 2 Key principles at a glance

Source: adopted from Gabriel, Pfeifer 2013

3.1. The principle to multi-dimensionality

We can overcome many of the barriers to SD by using a new language that is relevant to organisational interests, rather than relying on stakeholder pressures and moral arguments. Resilience, as outlined above, offers an intuitively satisfying motivation for organisations both to achieve sustainable shareholder value and contribute to global SD. This requires viewing the organisation as a system that is closely coupled with a variety of social, environmental, economic and cultural systems. The key to the SD of these systems is resilience, the ability to resist disorder.

Thus, an organisation can focus on being 'sustainable' by enhancing its own resilience relative to the systems in which it operates. Indeed, the 'triple bottom line' supplemented by the cultural aspect can be seen as one way to a multi-dimensional assessment of resilience in the transition for a sustainable future:

- Economic resilience: Reflects the financial strength and stability of the organisation, including the economic vitality and diversity of the communities in which it operates, the supply chain that it rests on, and the markets that it serves. According to Briguglio et al. (2008, p5) it can also be referred to as the ability to

recover from or adjust to the negative impacts of external economic shocks – maybe also internal shortcomings.

- **Social resilience:** Reflects the “human capital” of the organisation, including the capability, teamwork, and loyalty of its workforce, the strength of its relationships and alliances, and the political and cultural cohesion of its host societies.

- **Environmental resilience:** Reflects the operational efficiency and effectiveness of the organisation in terms of resource utilisation and waste minimisation, as well as its ability to protect and nurture the natural ecosystems in which it operates.

- **Cultural resilience:** Reflects how humans understand and appreciate natural resources and each other. It requires the recognition of local cultural values, equal rights and the cultural logic of the respective communities and the provision of support for participatory approaches.

In this sense, enhancing resilience will not only improve financial performance, but will also strengthen many of the intangibles that are recognised by shareholders, such as reputation, employee motivation, and process excellence. In short, an organisation that contributes to resilience from a multi-dimensional perspective enhances its own viability and prosperity as a business. Furthermore resilience can provide a common language for measuring organisation fitness, social vitality, and environmental health and safety.

3.2. The principle of openness

Just like general systems theory, complexity theory suggests that any attempt to draw a boundary around a complex system will represent an analytical sacrifice made by the one drawing it. Complex systems typically interact with their environment, and pressures from the surroundings affect the local adaptive strategies used by the system’s actors and the stakeholders of an organisation.

In Cilliers’ words (2005, p258), “*because complex systems are open systems, we need to understand the system’s complete environment before we can understand the system, and, of course, the environment is complex in itself. There is no human way of doing this*”. Particularly at the organisational level, this complexity is inherent in the normal day-to-day operation of the system, “*there are no special error producing processes that magically begin to work when an accident is going to happen but which otherwise lie dormant. On the contrary, there are no fundamental differences between performance that leads to failures and performance that leads to successes*” (Hollnagel 2008, pxxxv).

The organisation is an open system that interacts with its socio-ecological environment. This big picture needs to be understood. It is a nested system within a wider network of organisational stakeholders, which can include

individuals, institutions, social networks and natural systems (the latter also referred to as silent stakeholders). System desirability is therefore dependent upon the perspectives of internal actors (such as employees, management and shareholders), as well as external actors that operate in the market, the technical-economic and the scientific sub-environments (Lawrence, Lorsch 1967). The network of external stakeholders could therefore include customers, suppliers, competitors, financiers, government and community agents, all of which directly or indirectly influence the organisation.

According to this, the organisational system becomes the primary unit of analysis, defined as a network of interrelated systems which are systematically arranged and managed to pursue a set of activities with the collective goal of supplying a product or service. To be operationally resilient, organisations must address operational risk on many dimensions simultaneously, including people, technology, information, facilities, supply-chain, management, cyber and physical dimensions. By this definition, the boundaries of organisational systems will not always coincide with their legal boundaries. Some large corporations for example may have subdivisions that pursue diverse strategic goals, thus encompassing a number of further organisations by our definition. On the other hand, franchise, co-operative, and horizontally or vertically integrated business structures (such as the Japanese keiretsu), can be classified as single organisational systems. This requires careful planning, coordination, and training across many interdependent domains as well as understanding how the organisation's capabilities along these dimensions contribute to mission success.

3.3. The principle of emergence and individuals

The principle of emergence implies that the macro behaviour of the system emerges from meso and micro behaviour. The principle is based on the central tenet of general systems theory, which states that the behaviour of the whole is not reducible to the behaviour of the constituent components or actors (cf. von Bertalanffy 1950; Heylighen et al. 2007). With regard to the analysis of the emergent behaviour of the whole, complexity theory needs to turn its focus toward interactions and relationships, i.e., the 'individual' interactions, which influence the behaviour of the whole. This leads us to the individual principle.

The individual principle implies that all actions in a complex system are local. What each individual as an employee in the complex system does makes sense under the local conditions in which the employee operates, but the actor is unable to know the full effects of his or her actions. Employees respond locally to local information regarding locally changing conditions by adapting their coping strategies within an inherently uncertain environment. There is no single employee with knowledge of the entire complexity of the whole system, because that would imply the paradox of that employee needing to be as complex as the system itself (Cilliers 1998, Dekker 2011). The individual principle implies that

each employee in a complex system controls little, but influences everything. No single employee guarantees the emergent resilience of the whole organisation, but all employees influence the resilience of the whole organisation through their local actions, relations, and interactions.

3.4. The principle of levels

Before coming to the roadmap for resilience, it should be repeated that any resilient system requires a disturbance, i.e., a surprise, stressor, danger, threat or crisis. In fact, it seems impossible to define anything as resilient without something disturbing its existence, functioning, or survival, at whatever level of intensity. The impact of a disturbance not only depends on the physical characteristics of the event or its direct impacts in terms of lives, assets or money lost. Impacts also depend on the ability of the employees, organisation, sector or economy as well as the society as a whole to cope, recover, and reconstruct and therefore to minimize aggregate production losses and resource shortages. This ability can be looked at on different levels which also leads to different levels of resilience, i.e. the,

- micro or individual resilience at the employees level (cf. Alexander 2013; Aranda et al. 2012; Kolar 2011; Ungar 2005),
- meso resilience at the organisational level (cf. Carmeli et al. 2013; Hollnagel 2006, 2008; Hollnagel et al. 2006b, Lengnick-Hall, Beck, 2005; McManus et al. 2007; Miller, , Xiao 2007; Paltrinieri et al. 2012; Riolli, Savicki 2003; Sheffi 2007; Miller and Xiao 2007; Paltrinieri et al. 2012; Stephenson et al. 2010; Woods, Wrethall 2008),
- macro resilience mainly based on the sectoral, economy and policy level (cf. Becker et al. 2011; Cimellaro et al. 2013; Gibbs et al. 2013; Hamiel et al. 2013; McDaniels et al. 2008; O'Sullivan et al. 2013; Walker, Cooper 2011) and
- cross-scale resilience (cf. Almedom, Glandon 2007; Berkes 2006; Jerneck, Olsson 2008; Kulig et al. 2008; Wilson 2012).

The above principles imply that whether we target the analysis of resilience on the individuals, the organisation, the sector, policy or cross scale level, drawing boundaries around the system will always be an analytical sacrifice. They are all open systems. The answer to the question of 'where' resilience emerges should then be that it is a matter of where the boundaries are drawn.

4. THE ROADMAP: FROM THEORY TO REALITY

“Projects we have completed demonstrate what we know – future projects decide what we will learn.”

Moshin Tiwana

The use of analytical tools is a promising approach to understanding organisational performance in situations when the organisation is stretched to the limits of its capability. Interest in how the ability to adapt to unexpected and escalating situations varies with different levels of experience in both the domain of continued functionality and that of crisis management.

It is worth noting that the current organisational performance is not positively and negatively symmetrical, because of the uncertainty and risk attached to any future-related organisational development. For example, a dominant market position is no guarantee that a position is sustainable, while weak strategic positioning in key markets is an indication of vulnerability. Similarly, strong finances are not necessarily sustainable, while stretched finances will be an immediate cause for concern.

4.1 Elements and characteristics of a defined process

Becoming more resilient involves the deliberate application of a range of tools, strategies and business paradigms that many organisations will already be familiar with. A number of indicators, models or frameworks (cf. figure 1, chapter 3.4) to carry out an organisational performance assessment, benchmarking and management systems already exist. The choice of which framework (or combination of frameworks) to use depends (i) on the nature of the organisation, (ii) on the purpose of the assessment, (iii) the data and instruments available and (iv) on the context in which the assessed organisation operates.

The creation of performance architecture for organisational resilience requires a systemic and integral approach. A systemic approach means that the organisation and intervention concentrate on developing the people, the culture and business processes as well as driving for an external stakeholder outcome. An integral approach means that the organisation and intervention focus on the whole organisation in the system by considering different aspects and levels (cf. chapter 3.4).

The approach to future success and measurement thereof must be based on the business strategy and its long-term commitment. Therefore, one size clearly will not fit all, because there are different ‘time bound’ elements. Nor will the use of today’s key indicators suffice. Key indicators extrapolate today’s metrics and context into the future. In other words they tend to indicate the ability of an enterprise to continue along the current trajectory. They take insufficient account of the underlying ability to survive and thrive in changed market or

technological conditions. They are unlikely to fully embrace the implications of new global markets and the actions of market leaders.

There is a need for a new frame of reference as an approach to the metrics of tomorrow's success based on SD and resilience. SD is about doing things which will underpin and continue the success we enjoy today. It requires a significant improvement in the quality and relevance of current measures, and greater freedom to move beyond the current historic financial measures. Resilience is a step change from sustainability; it is about the capability of an organisation to re-invent itself as circumstances change (for a transition into a sustainable future). It is heavily dependent on judgement at the highest levels in the organisation as to the future and its implications.

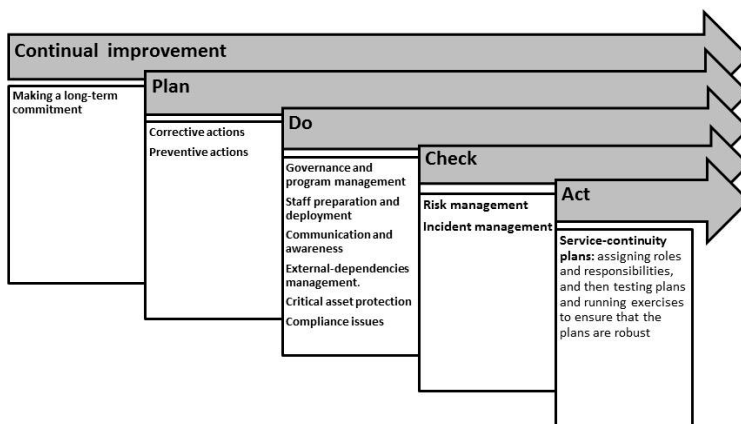


Figure 3 Organisational resilience process model

Source: adopted from ISO 22313:2012, Allen, Curtis, Mehravari 2014

PARC (2007, p15f) highlights the fact that there are problems with the assessment of SD and resilience, measurement must not be confused with quantification, and even quantifiable key indicators need interpretation. Although, quantitative scales tend to be used more than qualitative measures (Luthar, Cichetti 2000; Masten et al. 2006; Rutter 1993; Tusaie, Dyer 2004), the focus will be indicative rather than quantitative. Quantitative measures are useful as guides, but can be dangerous if not accompanied by a commentary. So the aim is to start with the sustainability assessment and look at how to expand the methodology to include the aspects of resilience – as shown in figure 3.

This process model developed needs a systemic approach. This would lend itself to systemic thinking which, while not being prescriptive, could shed light on the interconnectedness between the different levels and how an organisation is affected thereby leading to new insights into the multidimensionality of resilience based on a business strategy. Furthermore, this

would raise awareness among all concerned and help define tangible spheres of activity and dialogue for resilient organisations.

4.2 Challenges

The process model developed provides a theoretical lens through which propositions and the dynamics of organisational resilience can be explored and tested. It allows for the characterisation of organisational resilience into key components. As reflected by the evidence of the literature review, resilience is a broad and complex issue that covers several areas. As such the key areas of resilience within the response of an organisation, such as detection and activation, can be identified and addressed individually.

Given that resilience is seen as a complex construct that is dynamic, not static, there need to be measures of resilience that can capture the complexities of resilience over time (Glantz, Sloboda 1999; Luthar et al. 2000; Rutter 1993; Windle 1999) by considering the internal and external factors of influence. Furthermore, it is important that measures are conceptually similar to the area of resilience they are studying. For example, if risk factors such as poor employee behaviour are being measured, a suitable measure to assess employee behaviour should be used rather than a general resilience measure (Garmezy 1993; Luthar, Cicchetti 2000; Masten et al 2006; Tusaie, Dyer 2004).

So far this paper is based on literature review. It is very challenging to build an applicable model which considers both the principles defined in chapter 3 and lessons learnt from studies about organisational resilience (e.g. Endler, Parker's 1990; cf. subsection 3.4) within the defined process in figure 3. The next step shall be to go into practise and look at organisational resilience in the form of appropriate case studies.

This could be a valuable input for the work within the International Organisation for Standardisation on an ISO 22316. 'Societal Security – Organisational Resilience – Principles and Guidelines. In this respect though, there still lies a problem in trying to reconcile more traditional business continuity operations with a contemporary understanding of resilience. That is, the recognition that organisations must not prepare simply to survive and continue in the face of crises, but learn from them and use them to improve and evolve. In our complex, networked 21st century world, adaptive capacity will define an organisation's success as much as its financial, human and cultural capital. ISO 22316 is set to be a good starting point for those seeking to grasp this opportunity. (ISO TC 223 n.d.)

5. CONCLUSIONS

“We did not come to fear the future. We came here to shape it.”

Barack Obama

The concept of organisational resilience offers a useful framework for addressing economic, social and environmental issues in a systemic way. Organisational resilience is important particularly as there is a clear interdependence between organisational resilience and community resilience (Dalziell, McManus 2004), society resilience or the sustainable future for our living planet.

Clearly organisations that survive through adverse events become more resilient and Friedrich Nietzsche’s quote used at the beginning of this paper justly captures the essential nature of organisational resilience. Unfortunately, there is no ‘silver bullet’ for becoming more resilient; it is something that an organisation must continually work at. Nevertheless research (cf. chapter 2 and 3) has shown that because resilience is so intrinsically related to the day-to-day ethos of the organisation, it can also create significant payback in terms of helping to refocus on what is important to the organisation and creating a shared understanding of the roles people play in making these a reality.

The outcomes of this contribution lead to the following potential fields of further work

- We are beginning to understand the resilience of organisations, and to study their cyclic patterns of growth, collapse, and renewal. For organisations to invest in resilience there must be a proven way of measuring it, and of demonstrating changes and trends with this measurement over time. Management concepts and reporting systems are a starting point. Any serious assessment of resilient organisations should also bear in mind the future which results from current trends or how it is possible to include risks and limitations both currently and for the future. This will then enable organisations to make a business case for resilience and to show the value added by resilience management programs.

- Analysis of organisational resilience by industrial sector is also important for individual organisations. Organisations can identify whether they are more or less resilient than other similar organisations and can also identify the resilience strengths which set them apart from others. These strengths can then be translated into competitive advantage during and after industry wide crises or negative trends such as the rising costs of raw materials, agricultural disease outbreaks, or product recalls. Individual organisations can also use the tool to examine their resilience internally, allowing them to address gaps in awareness and silos between offices, departments and business units or organisational functions.

- To this end, further work also needs to be done to create applicable and well-functioning models of resilience; organisations need to have tangible and

achievable goals and need to know their thresholds in becoming more resilient in order to maintain their engagement with the process.

Organisations will face daunting challenges in the decades ahead: the population will grow to 9 billion people, with an increasing majority living in cities, and the pressures on natural resources will continue to mount. To sustain a growing, vibrant economy will require transformative innovations not merely in industrial technology and environmental policy. Organisations, government and people must become stronger partners, and better communication will be needed to help to understand the complexity of these challenges. In the 'new normal' of turbulent change, we must learn collectively to become more resilient in order to assure a safe, secure, and prosperous future for ourselves and future generations.

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EDUCATIONAL INDICATORS BASED ON THE PNAD DATABASE FROM 2001 AND 2011

JEL classification: I2, O21

Abstract

This study aims to introduce some aspects of home databases of the National Sample Household Surveys (PNAD), provided by the Brazilian Institute of Geography and Statistics (IBGE), analyzing their advantages and disadvantages. The PNADs are important for the study of education as they enabled the calculation of various educational indicators that can be broken down into several levels of geographic units and various demographic and socioeconomic groups, such as income level, age, sex, educational group of parents etc. and would permit the study of historical series. Secondly, we present the calculation methodology for a set of educational indicators derived from the home bases, such as illiteracy rates, average years of schooling, schooling rate and others. With these indicators built up a picture of the evolution of Brazilian education, the Northeast and the Sergipe state for the years 2001 and 2011. The results show that the Brazilian education, despite recent advances, is still very precarious, even when compared to income countries per capita equal to or similar to ours.

Key words: education, PNAD, policies

1. INTRODUCTION

The National Household Sample Survey (PNAD in Portuguese) is an extremely rich database and enables researches to build different educational indicators, which enables the apprehension of many aspects related to educational systems. Moreover, the database can be used to analyses different parts of Brazil, as macroregions and states. This paper presents an overview of some of these indicators, which can be applied to academic and applied research, using the PNADs of 2001 and 2011. The main geographical area of analysis is the state of Sergipe, which is compared to the Northeast macroregion (henceforth only the Northeast) and to Brazil. We systematically present the indicators, with a brief methodological explanation, what might be clarifying on a didactic perceptive.

2. A COMPARISON BETWEEN SERGIPE, THE NORTHEAST AND BRAZIL: EDUCATIONAL INDICATORS ELABORATED WITH THE PNAD DATABASE

2.1 Illiteracy rate

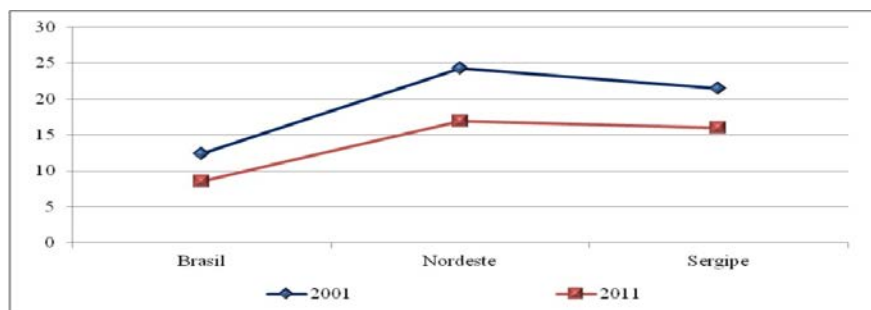
The illiteracy rate is commonly used by international organizations as a socioeconomic indicator for the development level of countries. For instance, it is part of the Human Developed Index (HDI), implemented by the UN. It is estimated by the rate between the illiterate population and total population in the same age group, generally, individuals 10 years old and above or 15 years old and above. An illiterate person is an individual that is incapable to read or write a simple note in his/her native language (IBGE, 2012). In the PNADs there is the following question: "Do you know how to read or write?"

The following expression represents this rate:

$$IR = \left(\frac{P_{illiterate}}{P_{total}} \right) * 100, \text{ where IR is illiteracy rate, } P_{illiterate} \text{ is the illiterate}$$

population in a specific age group and P_{total} is total population in the same age group

Graph 1 illustrates the evolution of the illiteracy rate in Sergipe state, the Northeast and Brazil between 2001 and 2011. The relative evolution was approximately the same in these areas, with lower levels for the country and similar rates for the other areas. In Brazil it decreased from 12.36% in 2001 to 8.59% in 2011, with a reduction of 30.5%. Similarly, in the Northeast, the rate decreased 30.46 % in the period, while in Sergipe it was a little less remarkable, with a reduction of 25.43 %.

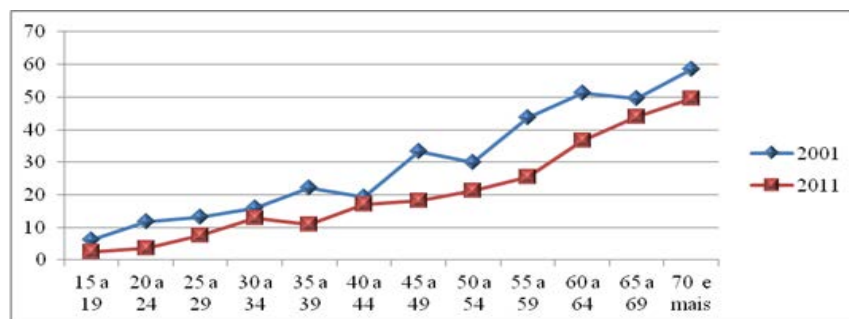


Graph 1 – Illiteracy rate for those 15 years and above in Sergipe state, the Northeast and Brazil in 2001 and 2011.

Source: IBGE, PNAD of 2001 and 2011. Data prepared by the authors.

However, illiteracy rate when estimated for the whole population above a specific age do not highlight differences between age groups. Therefore, the recent evolution of educational systems cannot be evaluated properly, as age compositional effects are not illustrated. Graph 2 shows the illiteracy rate by age, what is much more insightful for this purpose, as the recent progress of educational systems cannot be appropriately observed by stock variables (RIANI and GOLGHER, 2004).

It is clear the differences between generations. Older individuals had much higher rates. For instance, between 2001 and 2011 in Sergipe, the illiteracy rate among those who were 70 years old and above was over 40%, although the rate reduced 15.34 % in the period, a similar number was observed for the rates reduction in the Northeast. For young generations, illiteracy is nearly non-existent, indicating the recent evolution of formal education in Brazil. Notice, however, that the decreased in illiteracy in older cohorts is simple due to the substitution of individuals. For example, those who aged 25 to 29 years in 2001 are the same as those who aged 35 to 39 years in 2011, and rates are rather similar. This point highlights the importance of policies of adult's alphabetization.



Graph 2 – Illiteracy rate by age group in Sergipe in 2001 and 2011.

Source: IBGE, PNAD of 2001 and 2011. Data prepared by the authors.

Table 1 shows the illiteracy rate disaggregated by other groups of the population, by sex, the urban/rural dichotomy and income range. Concerning the differences among the sexes, rates were higher for men when compared to women. Urban residents had a much lower rate the rural ones in Sergipe, Northeast and Brazil. For instance, in Sergipe, the rates in 2001 were 16.03% in urban areas and 43.80% in rural ones. The reduction between 2001 and 2011 was also greater in the first, 37.05%, than in the last 23.56 %. Regarding income strata, as expected, the richer the households, the lower the illiteracy rate. Differences in the extremes of the income distribution were close to six fold.

Table 1

Illiteracy rate for those aged 15 years and above by sex, urban/rural place of residence and income range in Sergipe, the Northeast and Brazil in 2001 and 2011

Region	Year	Sex		Place of residence		Household income strata (in Brazilian minimum wages)			
		Male	Female	Rural	Urban	Up to one	From 1 to 3	From 3 to 5	Above 5
Brazil	2001	12.45	12.28	28.72	9.46	29.88	19.66	9.67	4.69
	2011	8.83	8.37	21.16	6.51	21.25	12.27	6.22	2.62
Northeast	2001	26.27	22.39	40.71	17.95	37.6	29.28	17.21	8.38
	2011	18.46	15.44	29.78	12.56	24.91	19.57	12.73	4.4
Sergipe	2001	23.68	19.46	43.80	16.03	39.71	24.78	14.35	7.06
	2011	17.99	14.21	33.48	10.09	27.79	18.24	12.05	4.82

Source: IBGE, PNAD of 2001 and 2011. Data prepared by the authors.

2.2. Mean schooling attainment

The mean schooling **attainment** is one of the most used among the educational indicators. It is influenced by approval and dropout rates, as well as rates of attendance (SOARES and LIMA, 2002). Therefore, high levels of attendance and approval, and low dropout rates tend to increase the mean schooling **attainment** of a particular population.

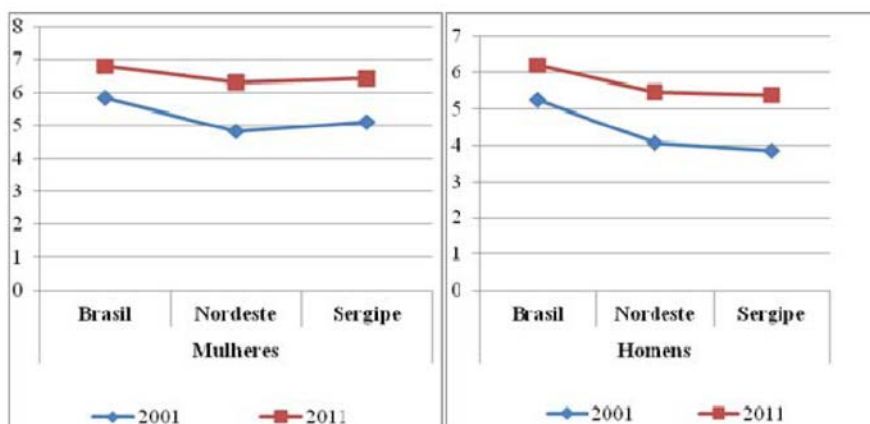
This indicator is built in the PNADs with information among students of the year and grade the individuals were currently attending, and among those who were not attending any formal educational institution, the last year attended being approved.

The following expression shows how the indicator is estimated:

$$MSA = \left(\frac{\sum_{i=0}^{17} iP_i}{P_{total}} \right),$$

where MSA is mean schooling attainment, I is the numbers of years of formal education, P_i is the population with as specific number of years of formal education and P_{total} is total population.

Graph 3 shows the evolution of this indicator for the population aged 7 to 25 years¹ by sex in Sergipe, Northeast and Brazil in 2001 and 2011. The values increased clearly in the period, however, women had higher values than men and differences increased between 2001 and 2011. According to Ramos (2007), differences in the labor market dynamics, as men are supposed to work at an earlier age than women, promote greater dropout and failure rates among males, partially explaining these results. Tendencies in the three areas are very similar, although the gaps in the Northeast and in Sergipe were greater. Values increased respectively 1,53 e 1,42 in Sergipe and in the Northeast, and a little less, 0,94 in Brazil.



Graph 3 – Mean schooling attainment for the population aged 7 to 25 years by sex in Sergipe, Northeast and Brazil in 2001 and 2011

Source: IBGE, PNAD of 2001 and 2011. Data prepared by the authors.

¹ This age group is the same used in Riani and Golgher (2004), nonetheless, it is more usual to use the ages groups 15, 20 or 25 years old and above.

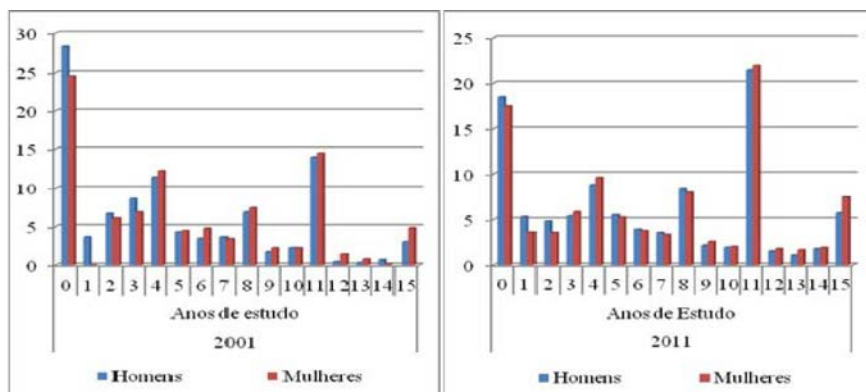
2.3. Percentage of the population of a particular age within a range of educational attainment

The indicator percentage of the population of a particular age within a range of educational attainment is directly linked to the indicator above². The expression below shows how to estimate the indicator:

$$PPEA = \left(\frac{P_{ic}}{P_i} \right) * 100, \text{ where } PPEA \text{ is percentage of the population of a particular}$$

age within a range of educational attainment; P_{ic} is the population in the specific range of educational attainment among those of a particular age group; and P_i is the total population in the age group.

Graph 4 shows the indicator for the population aged 25 year and above for the number of years of educational attainment in Sergipe by sex. The temporal evolution and the higher levels of formal education of women are clearly noticed. Moreover, two other facts should be emphasized: the large proportion of individuals of both sexes with no education³ and the peaks at 4, 8 and 11 years of formal education. These peaks represent the end of cycles: 4 years for the elementary level; 8 for the fundamental level; and 11 for high school diploma. There was an increase in the proportion of individuals with 11 years of formal education between 2001 and 2011, those who potentially could enter tertiary education, but given the lack of opportunities or will do not make the transition between the secondary level and the university.



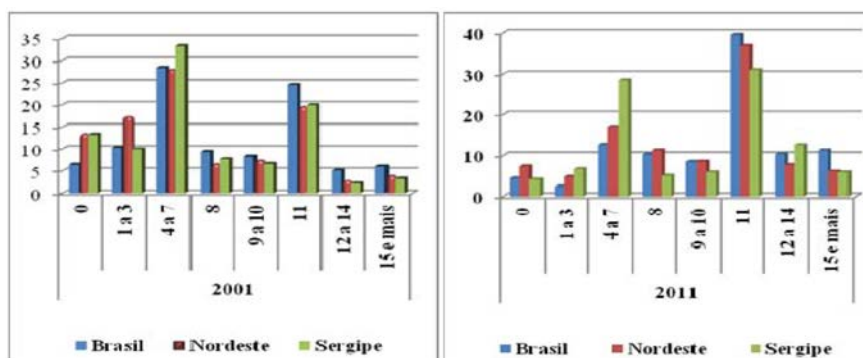
Graph 4 Percentage of the population aged 25 and above by years of formal education by sex in Sergipe in 2001 and 2011.

Source: IBGE, PNAD of 2001 and 2011. Data prepared by the authors.

² The ranges of educational achievement most commonly used in Brazil by the central government are: no education (zero years of formal education); incomplete fundamental studies (1 to 7); complete fundamental studies or incomplete secondary level (8 to 10); complete secondary level and incomplete tertiary (11 to 14) and complete tertiary level (15 year and above). Researches commonly use the ranges 0 to 3, 4 to 7, 8 to 10, 11 and 12 and above.

³ Not necessary illiterate.

Graph 5 shows the results for the indicators for 8 ranges of educational attainment: zero years of formal education (no education), 1 to 3 years of formal education (less than elementary); 4 to 7 (less than fundamental); 8 (fundamental level); 9 to 10 (less than high school); 11 (high school diploma); 12 to 14 (some university); 15 and above (university degree). The results clearly show the positive evolution of schooling attainment in the three analyzed areas. For instance, in Sergipe, the decline of individuals with no education between 2001 and 2011 was 9.14%, while in the Northeast and in Brazil the numbers were respectively 6.1% and 2.0%. On the other hand, there was an increase in the percentages of those who held higher levels of education.



Graph 5 Percentage of individuals aged 25 and above by educational attainment range in Brazil, the Northeast and Sergipe in 2001 and 2011.

Source: IBGE, PNAD of 2001 and 2011. Data prepared by the authors.

2.4. Gross enrollment ratio and net enrollment ratio

The indicators gross enrollment ratio and net enrollment ratio complement each other in some features and both are described in this section. The gross enrollment ratio is estimated by the ratio between enrollments in a specific level and the population that ideally should be attending the level. It enables to evaluate the volume of students vis-à-vis those who potentially would demand the specific level.

The following expression shows how to obtain the indicator:

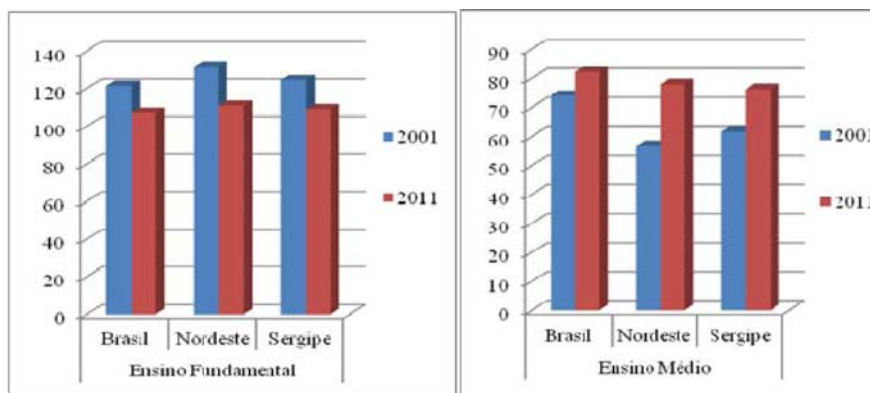
$$GER = \left(\frac{Enr_j}{P_i} \right) * 100, \text{ where } GER \text{ is gross enrollment ratio; } Enr_j$$

is the population enrolled in the specific educational level irrespective of the age; and P_i is the total population in the age group that ideally should attend the level.

However, this indicator has some limitations, as a region might have a higher value than other mostly due to a high age-grade distortion, when older individuals are still attending lower levels than they should (FELÍCIO and FERNANDES, 2005). Large proportions of older individuals than the ideally expected are caused by a later entrance in the educational system, temporary dropout or due to failure. Between 2001 and 2011, there was an increase in enrollment ratios in ages considered ideal for the fundamental level (7 to 14 year old) and for the secondary level (those aged 15 to 17). In part, this was the consequence of policies associated with school meals, the *bolsa-familia* policy, and greater availability of school.

Graph 6 shows the results for the indicator for the fundamental level and for the secondary one in the three analyzed areas in 2001 and 2011. For the fundamental level, the values are over 100% in all areas and years, as there were more people enrollment in this level than individuals aged 7 to 14 in the population. These results show the low levels of efficiency of educational systems in Brazil, with high values of age-grade distortion. Therefore, the ambiguities of the indicator, as mentioned above, are quite clear. On the positive side, more students are in school and did not dropout. On the other, many older students did not conclude with success the fundamental level. Notice that the values decreased between 2001 and 2011.

This same indicator does not show such great ambiguities for the secondary level. The positive side of the indicator tends to be much greater than the negative one. Regions with better values for the indicator for the age group of 15 to 17 tend to be more developed educationally. Notice that the values increased in the period in the three regions.



Graph 6- Gross enrollment ratio in the fundamental level and secondary level in Brazil, the Northeast and Sergipe in 2001 and 2011

Source: IBGE, PNAD of 2001 and 2011. Data prepared by the authors.

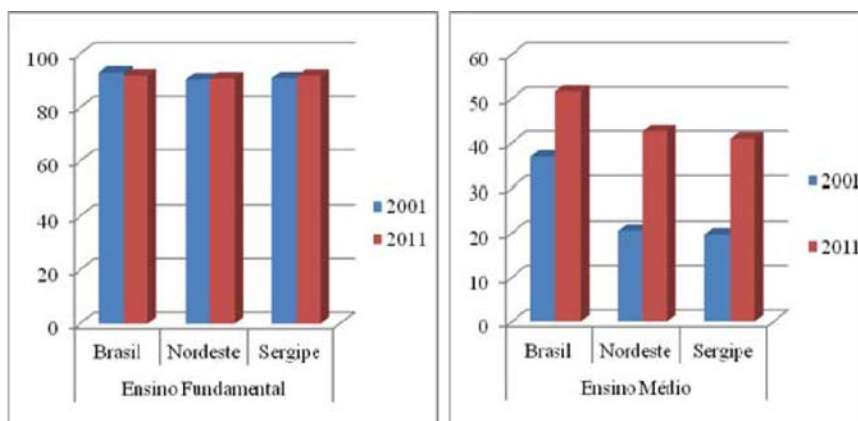
The ambiguities of the GER do not exist in the net enrollment ratio, which is estimated by the ratio between the enrollment of those who ideally should be in the level divided by the total population of the age group. The following expression shows how to estimate the indicator:

$$NER = \left(\frac{Enr_{ij}}{P_i} \right) * 100,$$

where NER is net enrollment ratio; Enr_{ij} is the population enrolled in the specific educational level among the age group that ideally should attend the level; and P_i is the total population in the age group that ideally should attend the level.

This indicator does not include individuals in older age groups than those who ideally should attend the specific level, is basically influenced by positive phenomena, and hence is adequate to evaluate the efficiency of the educational system. However, notice, for instance, that 10 year old students that are still in the first year of the fundamental level do show age-grade distortion, as they should be in the third or fourth years, by they are considered in the ideal age group to attend the fundamental level.

Graph 7 shows the results for the fundamental and for the secondary levels. All values are below 100%, and a clear positive evolution is observed between 2001 and 2011. Notice that the results for the fundamental level, which are close to 100%, show that this level is nearly universalized in Brazil. However, for the secondary level, values are much lower, although the evolution in the period was remarkable.



Graph 7 – Net enrollment ratio in the fundamental and secondary levels in Brazil, Northeast and Sergipe in 2001 and 2011.

Source: IBGE, PNAD of 2001 and 2011. Data prepared by the authors.

3. FINAL COMMENTARIES

This paper presented some educational indicators estimated with the PNAD database of 2001 and 2011. It compared the Sergipe state, the Northeast regions and Brazil for a myriad of indicators, which enable the apprehension of an encompassing perspective of the recent evolution of education systems in these areas in aspects related to sex and other demographic variables, as well as income and other economic variables.

It was observed a remarkable evolution of Sergipe, especially regarding illiteracy rate and mean schooling attainment, both with more notable progress than Brazil. Notably, gross schooling rates were high for the fundamental level, although the relative evolution of secondary level education systems were more strikingly, indicating the still incipient development of this last level in Sergipe and in Brazil.

It is well acknowledged that formal education in Sergipe and in Brazil, although the recent remarkable progress, still have a long way to go to be considered of a reasonable quality, even when compared to countries of similar per capita income. This social perspective highlights the need to effectively propose public policies designed to overcome the many deficiencies and difficulties presented by the educational system in Brazil. Aspects associated with social integration, poverty, economic competitiveness, social inequality, income growth, all linked to formal education, will be necessary considered by the public agenda in the near future. Therefore, studies as this one that presented an evolution of encompassing educational indicators in different geographical areas, surely can be used by political actors to found a more developed and equal society.

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SPECIFICATION AND CHARACTERISTIC OF GENERATION Y IN THE SPHERE OF WORK ATTITUDE

JEL classification: M12

Abstract

The Generation Y, grown in the age of economic prosperity, preferring work – life balance instead of high level of remuneration, is not only the first global generation, but also the first generation widely accessing to the information and communication technologies has entered current labor market. The paper focuses to the specification and characteristic of Czech and French generation Y in workplace, compares and determines the similarity or dissimilarity of young workers in their demands, values and expectations about the workplace and labor market. The research questions prove hypothesis of the generation Y satisfaction with working conditions and sufficiency of job opportunities in in their country. The research based on the primary source data was carried on questionnaire survey of 170 secondary and tertiary schools graduates, age between 18 and 30 years, nationality of Czech Republic and France. The research was carried throughout the years 2013 and 2014. Data from the questionnaires were processed by the statistical method of contingency tables for comparison of two distinct target groups and chi-square test.

Findings were dedicated to the recommendation of diversity management methods implementation in the sphere of human resource management.

Key words: *generation Y, work attitude, labor market*

1. INTRODUCTION

Generation Y creating 25% of the world population labour market is a far different than in the past. They have lived through turbulence in the labor force in the early 90s, the rise and fall of the dot com bubble, and uncertainty in the economy and the workforce over the past few years. More of it, the emergence of new technology is constantly changing the ways that people look for work, evaluate job opportunities and seek to attract, hire and retain talent. Gen-Y know first-hand what is it like to have one or two parents in a workforce where work has become increasingly demanding and hectic and many, if not most, have known someone who lost a job due to workforce downsizing. They have seen the transition from the notion of relative job security to “employment at will” where employers are less loyal to employees and assume that the employee is responsible for remaining employable.. (NSCW, 2002).

2. WHO ARE THE GENERATION Y?

Generation Y, comprising people born between 1979 and 1999, the youngest living generation, which currently operates or just entering the labor market, is considered as the first global generation. Previous generations, were rather evolved independently within each state, and therefore it is difficult to find common features. This generation Y is from early childhood surrounded by information and communication technologies, by the globalized world and by the ability to travel Thanks to this chance live in the world without barriers, generation Y proves grows of interest in international themes, language learning and international cultures and negotiating styles (Kubátová, Kukulková, 2013). McCrindle and Wolfinger have defined in their book *The ABC of XYZ: Understanding the Global Generations*, seven living generations: Generation of heroes, Generation of builders, Babyboomers, Generation X, Generation Y, Z and Alfa. Of these seven, just the three generations Babyboomers, Generation X and Generation Y are economically active (McCrindle, Wolfinger, 2009). The term ‘Generation Y’ was coined in the journal ‘Advertising Age’. This marketing trade magazine has been credited with first using the term in an editorial in August 1993, as a way to distinguish the group from Generation X (Advertising Age, 1993). Definitions of who makes up Gen Y vary. Aite Group defines the term as anyone born between 1979 and 1990, or those between ages 21 and 31. Another method uses overlapping 20-year periods, such as baby boomers (1945–1965), Gen X (1961–1981) and Gen Y (1979–1999). This definition, used by Javelin, puts Gen Y consumers between ages 11 and 31. Various sources work with

different names of this generation such as Internet or digital generation, Click generation, Millennials or Echo boomers. The current proportion of the percentage of Gen Y workers in organizations is characterized by Howe, Strauss as follows: 10% of Veterans, 44% of Baby Boomers, Generation X, 34% and 12% of Generation Y), (Aite, 2009; Javelin, 2009; Constantine, 2010; Howe, Strauss, 2010, 1997).

2.1. Gen Y work attitude and expectations

According to authors, the Generation Y is just the generations of optimists. These authors argues in their publication Millennials Rising, that in comparison with previous generations Gen Y are much more positive, not egocentric, more inclined to cooperate at the joint activities and team tasks. They believe in collective power (Howe, Strauss, 2000; Fidelity Investments research, 2013; Jayson, Puente, 2007). Opinions on the general characteristics of Gen Y, diverges in the scientific community. Jean Twenge argues that this generation is egocentric and ambient world interests them only via their Facebook pages (Twenge, 2012). However the members of Generation Y work longer and harder in more demanding jobs than employees 25 years ago, the results of research shows that those employees who are younger and have not yet advanced very far in their careers, employees in lower status occupations who earn less, and those in families with lower incomes are significantly more interested in getting ahead, and presumably earning more money. Similar findings are valid also for men which are more likely to want to advance than women. Gen Y workforce prefer to have the jobs with more responsibility than those who would like to work longer hours (75%). (NSCW, 2002)

“Generation Ys’ expectations about employer inducements because a breach of these expectations can have a detrimental effect on a number of outcomes, such as job satisfaction, commitment, job performance, and intention to stay.” (Hauw, De Vos, 2010, s.294). Gen Y have quite different needs and aspirations from previous generations in the workplace and look for a more engaging employee value proposition. The Hays research also confirms importance of salary level, as it is ranked the highest when it comes to the most attractive element of job rewards and benefits. Yet the fact that the next most attractive benefit is the possibility of working flexible hours – rated before that of the potential to earn a bonus – shows how money isn’t priority for Gen Y. (Hays, 2013). Gen Y tend to lower their expectations regarding work-life balance and social atmosphere, while their expectations regarding job content, training, career development, and financial rewards, and other expectations related to personal career development remain high (Hauw, De Vos, 2010). For Gen Y is no longer a major motivating financial evaluation criterion. Emphasis is placed on other bonuses and options of work-life balance that employers offer. (Rigotti 2009; Robinson and Morrisson, 2000; Zhao et al. 2007)

The results of Hays research shows that Gen Y is also similar to older generations, particularly the Baby Boomers, in its desire to have job security. Gen Y members still want some stability in their careers. This may be the result of general unease given the context of the recent global economic recession and the high level of youth unemployment. (Hays, 2013)

2.2. Gen Y work – life balance

Generation Y does not want to spend all their time working and sacrificing his life to the career, as was the case with the previous generation X. The research of Families and Work Institute by the American Business Collaboration (2002) showed that generation Y are less work-centric than Baby Boomers (13% versus 22%), and more family-centric than Boomers (50% versus 41%). When choosing a job they focus not only on interesting work itself but to the possibility for further professional development and self-realization. They refuse routine work (Kubátová, Kukulková, 2013) In the priorities forefront of this generation are situated personal life, relationships and family, which differs significantly from Generation X. One of the attributes of Gen Y is a new architecture of family, waived the classic stereotype of the father as breadwinner and mother as caregiver in household (Kocianová, 2012).

Based on the NSCW research findings, 63 % of Gen-Y employees disagree that traditional gender roles. Vice versa may be said that 37% of Gen Y reflect the family focus of today's workforce, believing that it would be "good" if one parent (the mother) could remain at home with children. NSCV research also shows that 82 % of Gen-Y employees agree that "a mother who works outside the home can have just as good a relationship with her children as a mother who is not employed. Importantly, the majority of Gen-Y employees had employed mothers themselves and know the impact of maternal employment on mother-child relationships. (NSCW, 2002).

3. THE RESEARCH RESULTS

The main objective of paper is mapping and compare approach of Gen Y to the labor sphere. The partial objective is to compare attitude, values and expectation of the Gen Y in the labour market in Czech Republic and France. These two nations has been chosen based on the historical connections, similar social roots and comparability of education system. The paper findings of serve as a foundation for employers, helping them to improve the adaptation process of Gen Y to the working environment.

3.1. Material and Methods

Primary data from the questionnaires are processed by statistical methods of chi square contingency test and are interpreted in tables with absolute and relative frequency. Data were processed by Statistica software. They were set for the research purposes hypothesis concerning the existence of differences between Czech and French Gen Y, their satisfaction with conditions in the work environment and career possibilities in their country.

The research was carried on samples of employed and potential job seekers aged 18-30 years, graduates of secondary and tertiary education in the Czech Republic and France. The questionnaire included filtering and identification questions. Due to these issues were excluded from the analysis, respondents who did not meet the required age of the sample and the relevant nationality.

The final amount of obtained data sources was 170 respondents. In terms of national representation, the survey was attended by 102 Czech respondents and 68 French respondents whose answers were then compared. To receive quality evaluation of the survey results would certainly be adequate if the target groups were represented in roughly the same number of respondents. This requirement for data collection was not met mainly by French respondents. It must therefore be noted that the compared groups are not equal, so the survey results should be interpreted with this in mind.

3.2. Personal attitudes

This block of questions were focused on the respondents' personal satisfaction life values and motivation. As the first in this block of questions was asked whether respondents are satisfied with their personal life. Table no. 1 shows that more than 70% of respondents were satisfied. Together to this question were related another question, that asked respondents to why they are not satisfied, if they answer so to previous question. Five of French respondents indicated the working reasons, namely the requirement to find a better paying job in another field. Six of French respondents indicated the personal reasons and five respondents indicated the reason of unemployment. Czech respondents indicated financial reasons (8 respondents), job dissatisfaction (4 respondents), the desire to improve career growth (3 respondents) and unemployment (3 respondents). The following table shows the results of the answers relating to life values respondents

Table 1

Satisfaction with personal life

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Yes	77	75%	52	76%
No	25	25%	16	24%
Total	102	100%	68	100%

Source: authors' research

The following table shows the results of the answers relating to respondents' life values. The respondents could provide there up to four values which are the most important to them in their lives. For the Czech respondents were the most important financial certainty which the French respondents placed at the last place. The second most important value for the Czech respondents was freedom that was for the French in the first place. The third most frequently mentioned value for the Czech respondents were honesty that was the fourth most reported value of French respondents' life. The fourth most important value for the Czech respondents was entertainment, which were by the French respondents ranked next to last.

Table 2

Generation Y life values

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Freedom	56	55%	50	49%
Honesty	45	44%	22	22%
Equality of rights	15	15%	13	13%
Education	27	26%	23	23%
Environment care	5	5%	20	20%
Entertainment	39	38%	12	12%
Creativity	15	15%	20	20%
Financial security	65	64%	9	9%
Safety	36	35%	9	9%
Leisure activities	37	36%	32	31%
Family and health	12	12%	0	0%

Source: authors' research

The last question dealt with whether the respondents are optimistic or pessimistic in their working life expectations. In both groups confirmed that more than half of young people see their future optimistically. The last question in this part of the questionnaire was directed to work motivation factors.

Table 3

Working life expectations

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Optimistic - the world is heading towards a better future	80	78%	47	69%
Pessimistic - it will be worse	13	13%	8	12%
The future is not interested	9	9%	13	19%
Total	102	100%	68	100%

Source: authors' research

The last question in this part of the questionnaire was directed to work motivation factors. The last question in this part of the questionnaire was directed to the work motivation factors. Respondents assigned to each of the 15 factors importance scale from one to five points, ranging results from insignificant to very important. The following table no. 4, shows the ranking results from the most important factors to least important for both the Czech Republic and French respondents. In the first place, both groups put job satisfaction as well as they agree with the last three points, namely life, pension and other insurance, IT and ICT equipment and a company car for private use.

Table 4

Generation Y motivation factors

Czech Republic	France
1. Work satisfaction	1. Work satisfaction
2. Human relations in the workplace	2. Working conditions
3. Working conditions	3. Ability to self-realization
4. Ability to self-realization	4. Human relations in the workplace
5. Salary / Wages	5. Possibility of career growth
6. Possibility of career growth	6. Freedom of decision
7. The financial bonuses	7. Salary / Wages
8. Freedom of decision	8. Public praise for good performance
9. Courses and training	9. Flexible working hours
10. Flexible working hours	10. Courses and training
11. Sick days	11. Sick days
12. Public praise for good performance	12. The financial bonuses

13. Life, pension and other insurance	13. Life, pension and other insurance
14. IT and ICT equipment for private use	14. IT and ICT equipment for private use
15. Company car for private use	15. Company car for private use

Source: authors' research

3.3. Work related attitudes

The first work related attitudes question was focused on what kind of professional focus can ensure a successful professional future. On this question, respondents could answered multiple choices, which is why the Czech respondents answered more responds than the number of respondents. Table No. 5 shows these responses. Most Czech respondents think that the future success will be ensured by targeting on Natural and Technical Science, especially the IT segments. French respondents most frequently answered that future success will be ensured by the technical focus.

Table 5

Professional focus ensuring successful future

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Natural science	64	63%	18	26%
Technical science	30	29%	34	50%
Social science	4	4%	5	7%
Agricultural and veterinary	19	19%	2	3%
Medicine	5	5%	4	6%
Military services	1	1%	5	7%
Culture and art	7	7%	0	0%

Source: authors' research

Respondents have chosen their specialization very rationally, in accordance with the current labor market demand. These are the labour market fields with stable demand for jobs and thus the relatively low risk of unemployment. Characteristic of these fields is that their knowledge and or expertise cannot be tied to a specific country, and allow workers to work abroad.

Another work related attitudes question in the survey was how many jobs the young people already changed. Most often, French and Czech respondents have or have had only one job. In second place among Czech respondents was the answer of three to four jobs. For French respondents was the

second most frequent answer two jobs. In the next sequence of answers, Czech and French respondents agreed, but by the percentage of French respondents, they changed more jobs than the Czechs.

Table 6
The number of job that respondents exchanged

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
I still have the same job	42	41%	24	35%
2	21	21%	14	21%
3 - 4	28	27%	12	18%
5 - 9	4	4%	11	16%
10 and more	2	2%	5	7%
They did not answer	5	5%	2	3%
Total	102	100%	68	100%

Source: authors' research

The previous question was followed by another, for those who said they had already exchanged two or more jobs. The issue was the reason for changing job. The table No. 7 mentioned below, shows the six most frequent responses for the Czech and the six most frequent responses for the French respondents. For Czech respondents was the most common reason for changing job the amount of salary, which was for the French respondents the fifth most common reason. For French respondents were the most common reasons for job exchange the chance to gain new experiences and the work dissatisfaction.

Table 7
The reason for job exchanging

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Absolute frequency
Career, self-realization, getting experience	8	8%	7	10%
financial reward	11	11%	3	4%
Removals and Migration	4	4%	5	7%
temporary employment	8	8%	6	9%
working dissatisfaction	7	7%	7	10%
Completing studies, obtaining higher qualifications	5	5%	0	0%
Termination of the contract	0	0%	4	6%

Source: authors' research

As mentioned above, in the theoretical part, the people of Generation Y like and frequently change jobs. For this reason, another question was asked whether the respondents can imagine working with one company for ten or more years. 74% of Czech respondents would agree if they were satisfied with the company, as well as 60% of French respondents.

Table 8

The idea of working with a firm of 10 years and more

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Yes, if I were satisfied	75	74%	41	60%
No, I do not think that would work for one company might be interesting for me	14	14%	13	19%
I never thought about it	13	13%	14	21%
Total	102	100%	68	100%

Source: authors' research

Furthermore, the respondents were asked what would be appropriate working hours for them. As the most favoured seems the statutory weekly working hours in both groups. In Czech Republic is the statutory weekly working time of 40 hours and 35 hours in France. It should be noted here that there is not significant preference for one possible answer. Response rates are approximately evenly divided.

Table 9

The appropriate working hours

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Absolute frequency
Shortened (less than 40 hours per week)	16	16%	20	29%
"Home Office"	27	26%	14	21%
Options provide a certain number of days off per year than other holidays	29	28%	13	19%
Weekly working hours 40 / 35	30	29%	21	31%
Total	102	100%	68	100%

Source: authors' research

Concerning the forms of work respondents prefer, was the question focused to whether they would rather work individually or in a group. Both

Czech and French respondents most often reported that they can accept both form of work.

Table 10

The preferred form of work

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Absolute frequency
I prefer to work alone	13	13%	10	15%
I prefer to work in a team	12	12%	14	21%
Comply with both forms	77	75%	44	65%
Total	102	100%	68	100%

Source: authors' research

Another goal was to determine which method of management respondents prefer. For both groups predominant preference of form of "coaching" and certain freedom than perform under precisely established working practices. This way of managing staff prefer 67% of Czech respondents and 81% of French.

Table 11

The preferred method of management

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Absolute frequency
leadership in the form of "coaching"	68	67%	55	81%
Precisely guided, according to rigorous procedures.	34	33%	13	19%
Total	102	100%	68	100%

Source: authors' research

The next question were focused on whether respondents prefer a career ahead of their leisure time or, conversely, whether their free time is in the first place for them. Here we can report a significant difference between the French and Czech respondents. Czech respondents, in amount of 46%, would be willing to devote more time to work, if it was needed. The French respondents, in amount of 51%, prefer a balance between work and personal life. Neither group prefer none of the extreme values, but the results in the table no. 12 shows that the Czech respondents have leaned toward to perform job duties and career. By contrast, the French respondents rather appreciate their free time.

Table 12

Work life balance preferences

Response	Czech Republic		France	
	Absolute frequency	Relative frequency	Absolute frequency	Absolute frequency
I'm willing to sacrifice my leisure time for my career	10	10%	6	9%
My free time is in first place	6	6%	10	15%
I like to balance work and personal time	39	38%	35	51%
I am willing to devote more time to my job, when it is needed	47	46%	17	25%
Total	102	100%	68	100%

Source: authors' research

Within the research questions we focused on the verification of these hypotheses, examining the Gen Y relationships to work attitude.

H1: The fact that respondents can find enough jobs opportunities in their area, does not depend on the nationality of the respondents.

Pivot Table			
The frequency of labelled cells > 10 (Marginal totals are not labelled)			
Do you think that there is ample opportunity for employment in your area?	Nationality (Czechs)	Nationality (French)	Lines (in total)
Yes	76	33	109
No	26	35	61
All groups	102	68	170

P-value = 0.00054 < 0.05

We reject the hypothesis (H4) of independence.

The contingency coefficient = 0.2564760. The low dependence

H2: The assumption that respondents can find better work conditions in foreign countries, does not depend on their nationality.

Pivot Table The frequency of labelled cells > 10 (Marginal totals are not labelled)			
Nationality	Do you think that you can find better work conditions in foreign countries? (Yes)	Do you think that you can find better work conditions in foreign countries? (No)	Lines (in total)
Czechs	65	37	102
French	35	33	68
All groups	100	70	170

P-value = 0,1172 > 0.05

We do not reject the hypothesis (H5) of independence.

4. DISCUSSION

Every generation has its own specifics, by which wants to distinguish from the previous generations. The generations which are more or less, constructively or sensibly, emotionally and spontaneously criticized by the current ones. This process causes the shift and progress of opinions, to finding new ways. People of Generation Y were represented by the number 2,787,409 which set 26.51% in total Czech population. French Generation Y is represented by the number 15,122,458, i.e. 22.98% of the total French population (ČSÚ, 2013; Desplats, Pinaud, 2011). Both Czech and France respondents prove similar behaviour, without any significant influence of the national culture characteristics. Gen Y employees can bring many positive skills and traits to the workforce; however, their motivations and how they engage differ in comparison with older employees (Kim, Knight, Crutsinger, 2009, Jamrog, Stopper, 2002). The evidence suggests that these members of Generation Y are more similar than not to their more seasoned co-workers (Deal, Altman, Rogelberg, 2010; Kowske, Rasch, Wiley, 2010; Real, Mitnick, Maloney, 2010). The quantitative generational differences are much smaller than what we are generally led to believe (Waldrop, Grawitch, 2011). Generation Y believes that in order to enjoy the freedoms and opportunities, must have control over finances, work, social and family life. (Maxwella, Broadbridgeb, 2014). Like every generation, these people have their own specific way of life, the expectations resulting into the specific requirements, particularly in the professional sphere. This involves different requirements, attitudes and expectations when choosing a job and building a career. Gen Y are significantly economically active, require a higher standard of living, they feel more responsibility for their own social security and put the emphasis on personal succeeding. At the same time, and that's probably the biggest difference compared to the previous generation, there is an increasing interest in their personal lives, especially leisure time activities, friends and

family relationships, instead of career focus and gaining economic success (De Vos, Stobbeleir, Meganck, 2009).

The first difference is related to finance. Money means the value for the Gen X, but the instrument for Generation Y. The changes are a normal part of their lives. The employers should realize, that the change does not mean the departure to another company only, but it just can be new diverse and interesting job content (Dries, Pepermans, De Kerpel 2008). Generation Y postpone starting a family later on, but what is different, they do not even then resign for a career and try to maximally align it with family life. This implies a need for alternative employment relationships, such as part-time jobs, sharing space or even home office. Generation Y has grown up closely bonded with modern technology. (Meier, Crocker, 2010; Armour, 2005; Balderrama, 2007) Although this method of gaining many information, friends and contacts, which can be applied not only in personal but also professional life, is very effective and accessible, on the other hand, can lead to the social isolation. The findings indicate that job characteristics have a critical mediating role on the relationships for Gen Y employees, suggesting a paradigm shift from passive to active employees who craft their jobs, roles, and selves within a retail organizational context (Tomlinson, 2007, Cennamo, Gardner, 2008).

5. CONCLUSIONS

The paper addresses respondents' preference to utilize the full advantage of all the opportunities offered by the global society, but requires a change in the style of cooperation and communication between employees and employers and does not intend to sacrifice their personal life for the labor sphere.

Based on the research results the required changes should be focused on these areas:

- using information and communication technologies in recruitment, Focus on social networking through networks Linked in, Viadeo, Xing, Google+,
- using of information and communication technologies for adaptation process, to allocate the position of "leader - senior- mentor" to be helpful new employees,
- improving internal communications and providing regular feedback,
- preference the leadership way in the form of "coaching - mentoring"
- to incorporate the requirements for work-life balance in the internal incentive system of organizations.

From the work attitude perspective, the paper findings show, that the Generation Y highly evaluate the long-term value of education, followed by gaining experience in various areas. Gen Y seeks to balance work and private life.

It also emphasizes the meaningfulness of the performed work and the possibility to consult work related issues with more experienced colleagues. Seeks for the working environment equipped with modern facilities and enabling friendly, team work supporting environment for open communication.

The interplay between professional and personal life is challenging and time-consuming management task, but when successfully implemented, deliver loyal, flexible employees who want to develop themselves for company advancement.

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STRATEGIC DIRECTION OF MULTINATIONAL CORPORATIONS IN HYPERCOMPETITIVE ENVIRONMENT¹

JEL classification: M16

Abstract

The paper brings together current knowledge on multinational corporations' strategic orientations displayed in hypercompetitive environment. Competitive dynamics is a phenomenon that is becoming more evident in many industries, even in those which were considered relatively stable until recently. There has been an alternation in the competitive conditions in various industries, visible through a sudden increase in competitive activity, greater variability in the profitability of the industry, as well as in noticeable changes in market shares. The main point of this paper is to highlight that even the largest and most successful MNCs experience different internationalization paths and paces. The complexity of MNCs regarding the multiple geographical markets and the dispersed activities within the firm often renders centralized management models ineffective and inefficient. The acknowledgement of the increased relevance of foreign subsidiaries and the observation that some subsidiaries take over strategic roles within the MNC led to a

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conceptualization of the MNC as a network in hypercompetitive environment.

Key words: multinational corporations, strategic orientation, hypercompetitive environment

1. INTRODUCTION

In today's business world speed is a priority. Firms are able to react on moves of competitors more and more quickly, managers have less time to make decisions, while understanding moves of competitors and their activities is becoming increasingly difficult. In addition, the time lag between appearance of a new product on the market and appearance of his imitation is getting shorter, resulting in less opportunity for making extra profits. In fact, studies have shown that the earnings of new products have declined significantly due to the accelerated appearance of imitations on the market, while newly established monopolies survive an average of 3 or 4 years compared to the previous 33 years. There is a general trend of shorter product life cycle, along with increasing competition which leads to price wars and a general decline in prices, with the exception of luxury products. Although price wars, as a rule, harm the entire industry regardless of who wins, they are becoming a common phenomenon because of the ease of its implementation in the fight with rivals.

In an attempt to restore the competitive vitality, the firm is trying to get in shape. It must be ready to respond quickly and be invisible in situations where the surprise and the first move is what it takes to succeed. If the firm is unable to defeat their competitors directly, then it must find a way to indirectly, in cooperation with other firms, improve its own competitive position. Going deeper into the analysis of the competitive environment, what concerns most managers, and occurs as a result of intense competition, is the fact that the success achieved today, does not necessarily means success tomorrow.

An environment where the advantages are created fast, but also deteriorating fast, is called hypercompetition (D'Aveni, 1994). It is characterized by intense competition and rapid moves, where firms must develop strengths quickly, and destroy or compromise the competitors' advantages. Its appearance is the result of more rapid and intense technological change, caused by the technological development and innovation of firms, but also the distribution and availability of firms' resources.

The principal consequence of hypercompetition is the temporary nature of competitive advantage. Temporary competitive advantage is created as a result of a rapid technological change, globalization, industry convergence, aggressive behavior, competition, deregulation, privatization and the growth of new Asian markets, as well as the pressure of short-term incentives for middle management to achieve results etc. Advantages of firm become more and more temporary in

nature, since various disorders can be found in environment, while strokes and activities of competitors are increasing. Regulation of competitive behavior might be partly ensured through appropriate development of the institutional context and effective institutions that regulate competition by preventing secret agreements and other noncompetitive practices. The development of an institutional framework affects the gain of competitive dynamics, namely the competitive interactions among firms to enhance the hypercompetitive environment (Hermelo and Vassolo, 2010).

2. MAIN CHARACTERISTICS OF HYPERCOMPETITIVE ENVIRONMENTS

The increase in the intensity of competition causes changes in business practices and has several important consequences. The most important consequence is that the way in which firms create advantages must be reviewed and redefined. The traditional model emphasizes sustainable development and long-term competitive advantages competitors cannot overcome. However, in today's competitive environment, most of advantages will be neutralized and overcome eventually.

Given that the structure of the industry is slowly changing, competitive advantages derived from the positioning within the industry are relatively stable (Porter, 1980). Resource theory especially analyzes the resources and capabilities that a firm possesses, and assumes that firms can achieve sustainable competitive advantage if they possess unique, valuable, and difficult-to-imitate resources for a certain period of time (Barney, 1991). On the contrary, in the presence of hypercompetition, the dynamic perspective, i.e. types of advantages that are of temporary nature, has replaced traditional and constant sources of competitive advantage. Some studies say that the factors that contribute to the hypercompetition include lowering the entry barriers through a global competition, and provide opportunities for enhanced methods of information spreading, which allow rapid imitation (Bettis and Hitt, 1995). Moreover, some researchers have shown that in conditions of hypercompetition, it is not possible to retain outstanding financial performance (Thomas and D'Aveni, 2009).

Hypercompetition and competitive dynamics are the basis for understanding of how the dynamics and intensity of competitive business environment lead to a temporary competitive advantage. Theoretical approach to competitive dynamics shows that the ratio of corporate strategy and business success depends mainly on the strategic behavior of the enterprises, but also the behavior of its competitors and their interaction (Grimm et al., 2006). The theory is focused and related to specific actions taken by the firm and the ways in which competitors respond to these actions. Chen, Smith and Grimm (1992) show that firms achieve competitive advantage through actions or stream of actions, and that the speed of competitors' response depends primarily on the characteristics

of specific actions. In the analysis of the features of firm actions, it is important to consider the action volume (Ferrier et al., 1999), the action speed (Yu and Canella, 2007), but also the buffered industry environment (Ferrier, 2001; Derfus et al., 2008).

Researchers of these disciplines have often explored new conditions brought by the emergence of hypercompetition and ever more severe, almost impossible to maintain, competitive advantages over competitors. However, very few researches have examined how the firm should decide, react and prosper in that environment. Thomas and D'Aveni, (2009) in a longitudinal study on reducing the business performance in the conditions of hypercompetition in the U.S. manufacturing industries, show that firms should try to maintain a competitive advantage by finding and citing a series of temporary advantages, which require taking a number of competitive actions in a certain time period, thereby ensuring the growth of business performance. Other studies focus on the impact of certain characteristics of competitive actions that firms make in the performance of the enterprise (Ferrier, 2001), and the impact of Top Management Team (TMT) and its motivation to take actions (Ferrier, 1999). The motivation of managers to take action is manifested by the initiative of members of top management team in formulating strategy. Entrepreneurial behavior of top management is associated with innovation in various business segments, where innovation enables the firm to adapt effectively to the changing environment in which the firm exists (Daraboš, 2014).

Sustainability of competitive advantage depends primarily on the industrial context in which the firm operates and the nature and possible sources of advantage (McNamara et al., 2003; Thomas and D'Aveni, 2004; Wiggins and Ruefli, 2005). Further on, there is an extensive research related to analysis of achieving or maintaining outstanding business performance of enterprises in hypercompetitive industries (Chen and MacMillan, 1992; Miller and Chen, 1994; Grimm et al., 2005; Ferrier et al., 1999; Chen et al., 2010, Chen et al., 2010).

Because of the dynamic nature of environment, long-term strategic positioning is not possible, as firms must continually assess their actions and change their strategy once they identify which moves or actions lead to the best results. Principles by which the firm can try to deal with unsustainable advantages can be defined by attempts to introduce new advantages before the competitors do, by taking unpredictable and aggressive actions, and by being constantly up-to-date. There are various studies on the macro-assumptions of temporary advantages at the industry level (D'Aveni, 1994; Warring, 1996; Eisenhardt and Brown, 1998; Ferrier et al., 1999; Wiggins and Ruefli, 2002, 2005; Thomas and D'Aveni, 2009). The fact that hypercompetition leads or does not lead to time compression depends on moderated factors such as: leaders' market value of the competitive advantage, effectiveness of the initiated strategy and intensity of industrial hypercompetition.

The increase in the intensity of competition changes business practices and has several important consequences. The most important consequence is that the way in which firms create advantages must be reviewed and redefined. The traditional model emphasizes sustainable development and long-term competitive advantages competitors cannot overcome. However, in today's competitive environment, most of advantages will be neutralized and overcome eventually.

D'Aveni argues that the attempt to build a sustainable advantage in the intense competition is impossible, and thus leads to irrational use of scarce resources so necessary in today's environment (D'Aveni 1994). Also, he believes that in an environment where every advantage is quickly neutralized, any attempt to maintain the existing advantages leads to obstruction of the development of new ones. Furthermore, not taking into account the dynamic environment of competition or the constant appearance of new competitors is main problem of traditional strategic models and gaining competitive advantages. They usually assume that firms and the environment in which they operate are simple and clear, with the recognized specific causes and effects. However, today's environment is far from stable and predictable.

The most important characteristics of competitive advantage in hypercompetition are aggressiveness in taking actions and integration of top management behavior (Chen et al., 2010). Firm's competitive behavior is determined by the TMT behavior and with an emphasis on socio-behavioral integration, which is to the degree to which members perform together (Smith et al., 1994; Simsek et al., 2005). The focus is on being prepared to take an action, i.e. the extent to which the firm is willing to participate with competitors and act quickly in the involvement and participation. The dynamics of top management is a very important component of the ability of the competitive behavior of firms (Chen et al., 2007). The assumption of being more dynamic in market and collaborative with competitors is the integration of top management of the firm that depends primarily on compatible traits and members' communication skills (Lin and Shih, 2008).

Market and technological changeovers require fast adaptation of capabilities and routines of a firm, so that it could respond to the demands of the market and/or new technologies. Organizational change is ultimately necessary, but the strategic decision-makers and initiators of changes in the firm are often not able to transform the old routines and capabilities of enterprises, since they themselves are strongly influenced by the old skills, habits, models, routines and information (Henderson and Clark, 1990). Managers can identify and use opportunities that result in a competitive advantage, but to preserve acquired positions and build a long-term sustainable competitive advantage (through entrepreneurial behavior), it is necessary to strategically manage the resources and capabilities of a firm (Ireland et al., 2003).

Thus, achieving competitive advantage in hypercompetitive industry largely depends on the internal context of a firm. Principles by which the firm can

try to deal with unsustainable advantages can be defined by attempts to be the first in achieving a new advantage, by taking unforeseen competitive actions and by constantly monitoring competitors' moves. Hypercompetition refers to the degree of uncertainty and insecurity that causes a deficiency in the necessary information to identify and understand the causal connection (Sirmon et al., 2007). Information deficit results in different levels of awareness about the scope and pace of changes among the participants in the industry, and omissions that often create opportunities for strategic actions, which could significantly pay off in the future. Firms that take action in order to ensure series of temporary advantages have the ability to succeed with a high rate of success as well (MacMillan, 1989; D'Aveni, 1994). However, readiness, more exact the firm's ability to promptly react to competitors' responses, largely depends on the characteristics of the firm such as its size and reputation and industry affiliation.

On the other hand, markets are in constant interaction and imbalance, while strategic decisions determine only partly firm's results (Miller, 1990). In such an environment, results of the firm arise from its interactions with other firms, and strategic decision-makers play an important role in the development of the overall competitive environment. It is important to point out that sustainability of competitive advantage has not been assumed, exactly the opposite; competitive advantage and success will lead to the reaction of competitors and imitation, ultimately leading to the disappearance of competitive advantage.

Generally, very few researches have examined the way in which the firm should decide, react and improve in hypercompetitive environment. Researchers in this discipline analyze the volatility and the dynamics of the business environment that leads to a temporary advantage (D'Aveni, 1994). Competitive advantage is evanescent, where every advantage that a firm creates decreases over time as a result of reaction of competitors. The above mentioned embodies a key premise of competitive dynamics.

Thus, strategic behavior in hypercompetitive industry requires an active presence in the market and aggressiveness of a firm to take action. Such corporate behavior is necessary, but not sufficient. Certain actions may lead to succeeding temporary advantages, while others actions do not have to succeed. The firm will achieve greater success for a longer period of time if there are opportunities to attain sequence of advantages (MacMillan, 1989), but it should bear in mind that the improved performance is not a result of achieving a sustainable advantage, but just a series of temporary advantages. Aggressiveness in taking action reflects on how the firm participates with its competitors in hypercompetitive environment. It is believed that firm has a high level of aggressiveness if, within a short period of time, it takes a large number of actions. Studies show that firms that yield a higher number of actions than its competitors in a year generate greater profits (Young et al., 1996), and also a bigger market share (Ferrier et al., 1999).

3. STRATEGIC PERSPECTIVE OF MNC IN HYPERCOMPETITION

Any firm that is considering competing in XXI. century has to think internationally and not from national perspective. International competitive advantages are the advantages of a firm in the international competitive conditions, and it can be achieved by positioning on foreign markets (Jansson and Söderman, 2015). Distinguishing international competitive advantage depends primarily on whether the competitive advantages are related to: the specifics of the firm, the specifics of the country or internationalization. Thompson, Strickland and Gamble (2005) conclude that the firm can win a competitive advantage beyond the national market (or make up shortage on the national market) and have identified three modalities to achieve competitive advantage on foreign markets: the use of the location in order to reduce costs or achieve greater product differentiation, the use of cross-border transfer of expertise and capacity and use of cross-border co-ordination in the way that only a national competitor can not (Akerman, 2014).

International firms can achieve competitive advantage by adjusting to the local requirements (advantages of differentiation) and / or by global integration of business activities (the benefits of standardization) (Koles and Kondath, 2014). The strategy of international firms depends on the way of building competitive advantages, therefore differ international, multinational, global and transnational strategies. High advantages of globalization, ie standardization are achieved by the implementation of global and multinational strategy, while the benefits of local adjustment and differentiation are achieved by applying multinational and transnational strategies. Strategic alternatives of international business can be viewed on the basis of the other two dimensions, namely: the necessity of international adjustment and the level of international engagement. Starting from these two dimensions, the firm may opt for indirect export strategy, cooperative export strategy, international, multinational, global or transnational strategy.

Indirect export strategy does not mean active strategy of firms that decide to export products sold on the local market. This strategy is mainly applied small and medium sized firms which do not have adequate knowledge and skills to actively participate in foreign markets (Haase and Franco, 2015). Cooperative export strategy is applied by the firms that do not possess the resources nor ability to actively participate in foreign markets, and are additionally subject to pressure for adjustment of its product and service requirements of the target market. The export strategy is a favorite strategy of Chinese, Korean and Italian firms (Gollnhofer and Turkina, 2015). However, whether long-term export strategy will be successful depends on the relative cost competitiveness of the national manufacturing base. In some industries, firms draw additional economies of scale and benefit from the learning curve from centralized production in one or more giant plant whose production capacity

exceeds demand in one of the national markets, so they generate mentioned economies through export. However, the strategy is vulnerable when the costs of production in the export country are significantly higher than those in foreign countries where the competitors do production, when the cost of transporting goods to distant foreign markets are relatively high and when the exchange rate is unfavorable (Thompson, Strickland and Gamble, 2005).

International strategy can be designed to be ethnocentric strategy in which structures, systems, processes and resources are under the control of the dominant parent firm (Perlmutter, 1969). Implementation of the centralized concept is supported by expatriates, who should ensure compliance with the strategic objectives of the parent firm. They are often considered a source of quick profits because they are not subject to adjustment pressure and rapid differentiation of their offer. Only marketing activities adapt to the specifics of foreign demand. While this strategy was successfully applied in the 1960s and 1970s by American firms, its meaning is now smaller due to the globalization pressures.

Multinational strategy is particularly effective in terms of big market and cross cultural differences. Perlmutter denotes multinational strategy as a polycentric or as a strategy to adapt to the requirements of the country subsidiary. The establishment of subsidiary firms, through a decentralized organizational structure, provides the greatest degree of adaptation to the local conditions. At the highest positions in the subsidiaries / branches are placed managers from the subsidiary country, who know the local market characteristics, cost structure, legal norms, etc. While this achieves high efficiency at subsidiary level, it is difficult to apply the synergy potentials of individual activities on foreign markets. The basic features of a multinational strategy are: if necessary adjustment of firm's competitive access in order to align with market and business conditions in each country - great adaptability to local conditions; selling different versions of the product in different countries under various brands - adjustment of product properties to tastes and preferences of customers in each country; arrangement of plants in many countries, each plant manufactures the product version for the local market; it is desirable to use local suppliers; adaptation of marketing and distribution to local customs and culture; transfer of the expertise and capabilities of the country to another one when possible and great freedom and autonomy of management (Rahimic and Podrug, 2013).

The power of multinational strategy is in a compatibility of a firm's competitive approach to the circumstances of individual countries and different tastes and expectations of customers in each country. This strategy is necessary when there are large differences between countries, between needs and buying patterns, when customers are looking for special customized products or products made to order. The strategy is necessary when there are laws which sold products must meet - these are strict manufacturing specifications or country's labour standards, and when trade restrictions are so different and complex that they in advance prevent unified, coordinated global approach to the market.

Disadvantages of a multinational strategy are: (1) difficult transfer of expertise and firm's resources across national borders (as different countries may use different skills and abilities) and (2) not encouraging the construction of a single, unified competitive advantage (especially those who have adopted the strategy of cost leadership). As a rule, most international firms seek to implement a global strategy, of course, to the extent permitted by the customer's needs.

Global strategy includes formalization and standardization of structures, systems, processes and resources throughout the world. The literature often uses terms such as simple global strategy (Meffert and Bolz, 1988), global integration strategy or strategy of global rationalization (Negandhi and Welge, 1984). The advantages of the standardization are achieved by centralizing strategic decision-making in the parent firm, while there is a minimal local adaptation within the formal market appearance and operational business activities. Although by the beginning of the 1980s advantages of global strategy were promoted, more visible became their economic, entrepreneurial and institutional boundaries. Failed attempts of many firms trying to sell standardized products by applying the uniform strategy across the world confirm that global strategies underestimated the need for local adjustment. It is therefore increasingly more ignorance when it comes to the request for standardization of all firm's functions around the world. The basic features of global strategy are: application of a united strategy in the whole world (strategy of low costs, differentiation, focus strategy - low costs or differentiation); sale of identical products under the same brand name around the world; locating plants on the basis of maximum locational advantages, mainly in countries where production costs are lowest, but the plants can be dispersed if transport costs are high or other locational advantages are dominant; use of the best suppliers from anywhere in the world; coordinating marketing and distribution throughout the world; making minor adjustments to local countries where necessary; competing all over the world using identical technology, expertise and ability, placing the focus on the rapid transfer of new ideas, products and capabilities to other countries; coordinating major strategic decisions around the world, requiring the local managers to adhere to a global strategy (Rahimic and Podrug, 2013).

Literature mentions regional strategy as an advanced phase of the global strategy (Oh and Rugman, 2014). The reasons for the implementation of the regional strategy are: the existence of critical markets (critical markets provide a large range of activities and first-class consumers, and intense competition ensures suppliers reasonable premiums); the absence of trade barriers (eg EU, NAFTA); size and importance of certain regional markets; fewer cultural differences within the region against the cultural differences between regions and limited resources and goals that define the firm's activities at the regional level (Schlie and Yip, 2000).

Research confirms that the largest multinational corporations actually do not implement global strategy, but the strategy of standardization and rationalization at the regional level. For example, Wal-Mart is today the largest

global corporation, and generates 95% of its sales in the region of North America, so we are talking about a regional strategy. There is also a common application of biregional strategy where actually two regions are having the same strategic importance. BP is an example of a multinational corporation that conducts biregional strategy as it generates 48.1% of sales in North America and 36.3% in Europe as another region. Examples of global strategy in the business realities are much less common. Global strategy is implemented by firms such as Coca-Cola, LVMH, Royal Philips Electronics, Sony, Nokia and Intel (Rugman, 2005).

Regional strategy can adopt six modalities; from regional focus, regional portfolio and regional centers which are characterized by intraregional orientation, to regional platforms, regional tasks and regional networks which are characterized by interregional orientation. Practically all international firms start with a regional focus strategy. Zara, a clothing chain with low prices, designs and manufactures highly sensitive fashion products in the proximity of its production and logistics center in northwestern Spain and products are transported by truck to Western European markets in the period of two to four weeks from their design. However, those who focus regionally may lose space to grow or can miss to appropriately hedge themselves. The growth within Europe is becoming Zara's an increasing problem. And the lack of coverage of risk already registered as the main source of concern because eg. in 2006 fall of the dollar against the euro increased Zara's production costs in Europe compared to the competition which relies on imports from Asia, denominated in dollars (Oh and Rugman, 2014).

Ghemavat highlights that the regions proved to be the best unit for expressing the application of a moderate but realistic vision of a half globalized world in which neither the bridges nor the barriers between countries can not be ignored (Ghemavat, 2010).

Transnational strategy is considered to be the ultimate aim of achieving competitive advantages of international firms in today's business environment. The literature refers to it as dual or opportunistic strategy (Meffert, 1986), as multifocal or as a glocal strategy (Henzler, 1990). The central feature is reflected in the simultaneous exploitation of economies of scale and effects of adaptation to local requirements and needs. It can be said that transnational strategy combines the advantages of global and multinational strategy. Therefore, from an organizational perspective, it is necessary to harmonize the necessary level of centralization of business activities, due to economies of scale and an acceptable level of decentralization, due to the necessary adaptations to local requirements and needs (Rakita, 2006).

4. CONCLUSION

Globalization, deregulation and technological advance caused dramatic changes that have redefined the nature of the business by increasing competition where every successful innovation, every well played market move leads to

creative reaction of competitors. Because of that, firms should try to achieve a series of temporary advantages, instead of maintaining old ones. In an environment like hypercompetition, firms, especially those considered to be market leaders, are under constant threat of competitors who are able to react almost immediately to firm's action. In such environment sustainable advantage is quite questionable since competitors have opportunity to overcome firm's advantage through technology, data analysis, reverse engineering, etc. But what is more important, achieving competitive advantage depends a lot on firm's capability to respond on a new market demands before its competitors.

Furthermore, as highlighted in the previous paragraphs, firms have to be prepared to take a number of actions, i.e. it must be active participant on the market, which primarily depends on the TMT who should mobilize resources effectively, identify business opportunities and be able to throw away old habits and routines and enhance new knowledge in order to achieve competitive advantage.

In conclusion, it is important to point out that first of all, firms should assess the character of the industry, and pressures towards globalization and its competitive abilities, especially from the perspective of their portability to other markets. The strategic decision of a firm depends, on the one hand whether the industry is of national or international character, and on the other hand the possibility of transferring resources and capabilities outside the country of the parent firm. By selling on international markets it is possible to achieve the benefits of economies of scale, but nowadays it is still not enough to only take a part in the competition with standardized products. Bearing in mind the characteristics of today's business environment to achieve long-term sustainable competitive advantages, it is extremely important to adapt to local conditions, which is exactly the advantage of local businesses in relation to multinational corporations.

Finally, the result of the hypercompetition is a significant increase in the speed of competitive response, the rise of competitive actions and falling prices. It is expected that these trends will continue in the future, and those firms prepared to respond to market demands, as opposed to those focusing on planning and forecasting, will successfully face an uncertain future.

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THE ROLE OF LEADERSHIP IN ORGANIZATIONAL ADAPTATION PROCESS

JEL classification: M21

Abstract

In this paper, we intend to theorize how leadership affects organizational adaptation to its external environment by applying the concepts of learning organizations. We contend that the adaptation success is positively related with the dimensions of learning organization such as; continuous learning, inquiry and dialogue, team learning, empowerment, embedded system, system connection and strategic leadership. In addition, we identify the executive leadership role in fostering the desired corporate culture conducive to organizational adaptation process. The theoretical contributions and managerial implication of this study are discussed.

Key words: leadership, organizational adaptation, learning organization

1. INTRODUCTION

The success of any business is reliant upon how the business's purpose fits into a constantly changing environment. In order to adapt and remain resilient in business, leaders must be continuously mindful of the changes in the environment in which they operate. We intend to theorize how leadership affects organizational adaptation to its external environment by applying the concepts of learning organizations. We do not attempt a comprehensive or exhaustive discussion here. Rather, we offer initial direction and propositions to spur research efforts. In particular, we study the dimensions of learning organization

including continuous learning, inquiry and dialogue, team learning, empowerment, embedded system, system connection and strategic leadership. We argue that adaptation success is positively related with these dimensions of learning organization. In addition, focusing on the leadership at the top management level, we identify their crucial role in initiation and implementation of the adaptation process. The success of any business is reliant upon how the business's purpose fits into a constantly changing environment. In order to adapt and remain resilient in business, leaders must be continuously mindful of the changes in the environment in which they operate.

2. THEORETICAL FRAMEWORK

Contingency theorists argue (Burton and Obel, 1998), and the empirical studies concur (Entin, 1999), that the effectiveness of an organization is influenced by the "degree of fit" between the requirements of the environment and the characteristics of an organization. The effort to achieve dynamic congruency in the face of changing environments forces organizations to adapt while they continue to operate (Mackenzie et al., 1996). Not only an organization must evaluate its design against the environment to know when to adapt, but also, for an organization to succeed, the adaptation process must be smooth, efficient, and cost-effective.

Managing an adaptive company requires nontraditional vision and skills. Organizations, like organisms, have to keep evolving if they are to survive. And each change in the landscape brings the process to that dire junction: adapt or die. Over a longer period of time, major changes in the external environment create emerging threats or opportunities for the organization, and changes in strategies or tactics are often needed to ensure effective performance and continued survival for the organization. The extent to which a leader makes appropriate changes in strategies and tactics provides another indicator of flexible and adaptive leadership (Yukl, Mahsud, 2010., pp. 81-93.) The challenge facing managers today is to make the effort needed to learn some of the new skill and techniques, and to put in processes that engage their workforce in programmes of continuous capability development. Learning should be integrated into the doing, as part and parcel of everyday work. It is only possible so that the organization becomes a learning organizations (Senge, 1990). More and more organizational researchers realize that an organization's learning capability and its adaptation capability will be the only sustainable competitive advantage in the future.

3. ORGANIZATION OF THE PAPER

This paper is organized as follows. First, we briefly review the literature relevant to the concept of organizational adaptation, learning organization and leadership. Then we describe the theoretical framework and articulate our

propositions on the relationships between leadership role in implementing learning organization concepts and adaptation process. We place emphasis on the managerial skills required to build a learning organization. The last is our discussion and conclusion.

4. LITERATURE REVIEW

Change is an ever-present feature and has become a constant in organizational life. It is a common thread that runs through all organizations regardless of industry, location, size and age (Kin, T.M., Kareem, O.A. 2015). Since publishing *The Adaptive Corporation* in 1985, Alvin and Heidi Toffler have theorized about what organizations must do not only to survive but to prosper in a social-economic environment that is fundamentally different from the industrial era in which they were born. As part of their mission to provide clients a path to a profitable, sustainable future through actions to be executed today, Toffler Associates recently brought together a small group of executives to discuss organizational adaptiveness. Looking across both commercial and government organizations, they considered what lessons they can learn from organizations that have proven themselves “adaptive” in the fast-paced environment. The participants considered two critical questions:

1. What are the vital attributes of an adaptive organization?
2. How do you make your organization more adaptive to the challenges and opportunities of the knowledge age?

In their discussion of different organizations - their own and others they have observed - they identified several attributes that seem to enable these organizations to adapt to the economic, social, and other shifts that routinely occur around them. These attributes include:

- The ability for all employees, departments, and groups within an organization to collaborate effectively.
- The ability for all employees at all levels to network with others outside the organization, gaining new sources of useful information and helpful perspectives in the process. This includes networking with customers and other stakeholders, external industry experts, even with competitors or rivals.
- The ability for all employees at all levels to innovate and experiment without fear of “reprisal” or marginalization. Instead, where the culture of the organization is to reward those who think innovatively, participants saw the greatest success in adapting to solve the pressing issues the organization faces.

Finally, integrating learning with changes in policy is possible only if the policies already implemented can be changed. The transition to adaptive management relies on increasing the adaptive capacity of the system by meshing management and policy with learning. The research clearly see the key role played by the organizational culture in organizational adaptation process.

Table 1

Table 1. Comparison of different approaches to the learning organization

Systems perspective (Senge 1990)	Learning perspective (Pedler et al. 1991)	Strategic perspective (Goh 1998)	Integrative perspective (Watkins and Marsick 1993, 1996)	Building blocks (Garvin et al. 2008)
Team learning	A learning approach to strategy	Clarity and support for mission and vision	Continuous learning	Psychological safety
Shared visions	Participative policy making	Shared leadership and involvement	Inquiry and dialogue	Appreciation of differences
Mental models	Informating	A culture that encourages experimentation	Team learning	Openness to new ideas
Personal mastery	Formative accounting and control	The ability to transfer knowledge across organizational boundaries	Empowerment	Time for reflection
Systems thinking	Internal exchange	Teamwork and cooperation	Embedded system	Experimentation
	Reward flexibility	Aligned organization design	System connection	Information collection
	Enabling structures	Appropriate employee skills and competencies	Strategic leadership	Analysis
	Intercompany learning			Information transfer
	Learning climate			Leadership that reinforces learning
	Self development for everyone			

Source: Kirwan, C. *Making Sense of Organizational Learning - Putting Theory into Practice*, <http://www.gowerpublishing.com/isbn/9781409441861>

4.1. Adaptive Leadership

In 1994, Heifetz's adaptive leadership was introduced to the world of leadership studies. One of the most important framings of adaptive leadership is the idea that leadership is not positional or based on authority but rather a practice that can be pursued by anyone. The authors explain that while leadership is not based on authority, it is also "radically different from doing your job really, really well" (p. 23). Adaptive leadership focuses on the need for change within organizations and encourages actions that disrupt the status-quo in order to incite forward momentum. Adaptive leadership is rooted in leadership theory but also has significant links to scientific theory. As the authors explain, the focus on adaptation is drawn from biology and evolution where plants and animals evolve (or adapt) over time in order to survive and thrive. The authors explain that successful adaptation requires building on the past and observing what is expendable or extraneous as changes are made while still recognizing the "heritage" of an organization. Moreover, adaptation relies on experimentation and diversity in order to succeed.

Successful adaptation also recognizes the need for loss and that such changes require time. The authors also make use of biological terminology in their analogies. They instruct readers to "diagnose" the challenges before them before acting and compare organizations to ecosystems. Effective leadership makes the difference. The CEO must manage the constant balancing act between organizational structures which channel innovation whilst managing risk, and a cultural openness which seizes new opportunities and looks beyond day-to-day business parameters. A CEO should recognise where innovation comes from and different approaches to promote it. A prerequisite for employees to freely experiment is that they need be empowered.

The main rule concerning empowerment is to recognise that it is about creating the environment that enables all colleagues to empower themselves. Therefore, it is not about the leader empowering colleagues. It is more about the leader finding how to appropriately encourage colleagues to grow and develop their capability in ways that fit with their needs and the needs of their roles. The goal is to create a dynamic environment that is achievement focused by encouraging colleagues to work as a team rather than as an individual. This would result in rewards systems being based on the team result with possibly a small element given for exceptional individual contribution. Giving colleagues the opportunity to grow and develop together can provide the basis for exceptional achievement. It gives opportunity to colleagues to do their best whilst knowing the when needed they will support other colleagues or receive support from them.

Leaders need to have mental models that facilitate understanding about the complex effects of their behaviors on multiple objectives, and the importance of balancing competing values. Mental models are representations of reality that people use to understand specific phenomena (Johnson-Laird, 1983). They represent deeply ingrained assumptions or generalizations that influence how we

understand the world and how we take action (Magzan, 2012, p.57-63). Since mental models represent the assumptions held by organizations and individuals which determine how an organization thinks and acts, they can be a barrier for organizational learning. Leaders need to appreciate and take advantage of opportunities to increase their self awareness of relevant traits, skills, and behaviors, and to develop necessary skills before they are needed. Leaders should also recognize their responsibility for helping subordinates develop and use the skills and behaviors required for flexible and adaptive leadership (Yukl, 2010, p.81-93). Finally, to be flexible and adaptive in a world full of change and uncertainty is difficult and stressful and leaders need to have a high level of commitment to do what is necessary and ethical.

4.2. Learning organization

Although there are different approaches to and definitions of a learning organization, some common characteristics can be identified. First, all approaches to the construct of a learning organization assume that organizations are organic entities and therefore they have the capacity to learn and to adapt. The Learning Organization is seen as a response to an increasingly unpredictable and dynamic business environment. Here are some definitions by key writers:

"The essence of organizational learning is the organization's ability to use the amazing mental capacity of all its members to create the kind of processes that will improve its own" (Dixon, 1994).

"A Learning Company is an organization that facilitates the learning of all its members and continually transforms itself" (Pedler et al. 1991).

"Organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to learn together" (Senge, 1990).

Learning organizations are those that have in place systems, mechanisms and processes, that are used to continually enhance their capabilities and those who work with it or for it (Nonaka, 2007), to achieve sustainable objectives - for themselves and the communities in which they participate.

The important points to note about this definition are that learning organizations:

- are adaptive to their external environment.
- continually enhance their capability to change/adapt.
- develop collective as well as individual learning.
- use the results of learning to achieve better results.

They describe four organizational capabilities that are necessary to foster rapid adaptation. These characteristics are the following:

- the ability to read and act on signals of change;
- the ability to manage complex and interconnected systems of multiple stakeholders;
- the ability to experiment rapidly and frequently - not only with products and services but also with business models, processes, and strategies; and
- the ability to motivate employees and partners.

The basic rationale for such organizations is that in situations of rapid change only those that are flexible, adaptive and productive will excel.

4.2.1. Barriers to becoming a Learning Organization

Although Senge's conceptual works provide ideal scenery for the management, putting concepts into action is not so easy. Senge believes that all companies should possess the characteristic of a learning organization in order to achieve continuous success. According to Senge, a learning organization can be achieved by practicing five disciplines: a shared vision, personal mastery, strong mental models, group learning, and system thinking (Senge, 1990, 1991). The assumption is quite rational and inexpugnable, but we can soon realize that there is a knowing-doing gap.

Table 2

Table 2. Factors working against being a learning organization

Factor	Description
Leadership does not set the example for learning.	The idea of organizational learning is not championed, and lessons from previous experience are not incorporated.
Management is insular.	Management is isolated from the rest of organization and the external environment
Management is arrogant, ignorant and complacent.	Strong egos and previous success cause managers not to be willing to recognize or admit their mistakes.
Poor top-down communication.	Information is provided on a need-to-know basis, with little explanation.
Not soliciting ideas.	Management is unwilling to seek good ideas from employees.
Lack of upward communication.	Upward communication is ignored or channels are blocked, and management considers constructive criticism to be an insult to existing processes.
Lack of empowerment to learn and	Lower-level employees are not encouraged to

change.	experiment with new approaches or initiate change.
Ineffective mental models.	Management is not up to date with current realities and is unwilling to consider new possibilities and try different approaches.
Preoccupation with the short term and bottom Line.	Management focuses on cutting costs to enhance current profitability rather than taking the time to learn and invest in the future.
Lack of holistic approach to change.	Changes are either too few, too many, too late or not implemented well.
Lack of communication about change.	Management does not provide sufficient communication before, during, or after change fear and anxiety about change.
Management's fear of looking bad causes it not to ask for advice from others.	Change in leadership turnover, rotation, restructuring and the general lack of continuity causes employees to resist change.
Inadequate training.	Top management does not provide sufficient time and funding for job-specific and advancement-related training.
Inadequate system for knowledge acquisition and sharing.	There is no common database to contribute, store, access and disseminate information.
Unwillingness to use appropriate technology.	Managers and employees do not embrace new technology, including capitalizing on the full value of the Internet.
Lack of multidirectional communication.	Departments are not communicating with each other.
Lack of performance measurement and accountability for poor performance.	People who do exceptional work are not rewarded and those who do poor work continue doing poor work.

Source: Kirwan, C. *Making Sense of Organizational Learning - Putting Theory into Practice*, <http://www.gowerpublishing.com/isbn/9781409441861>

We can see that a lack of communication, lack of shared vision and unsupported corporate climate seems to be one of the main obstacles in building a learning organization. All these are problems that could be solved by an effective leadership.

5. THE LEADERSHIP ROLE IN CREATING ADAPTIVE ORGANIZATIONS

The role of mid- and senior-level leaders in making change happen is critical (Dinwoodie, D. et.al. 2015). Romanelli and Tushman (1985) stress that the most extreme forms of organizational change require top management involvement: „Only executive leadership can initiate and implement the set of discontinuous changes require to affect a strategic reorientation“ (p.180). A study from the University of Hawaii found that teams in an adaptive organizational

structure enjoyed participating in the group tasks assigned to them much more than teams organized in a hierarchical structure enjoyed identical assignments. Increased job satisfaction tends to lead to greater motivation. High motivation is necessary in an adaptive organization, because managers must rely on employees to perform without active direction or micromanagement. Key to success is for leadership to build and nurture an internal corporate culture, which supports innovation, change, and adaptability to a changing external environment.

Leadership in learning organizations centers on subtler and ultimately more important work. In a learning organization, leaders roles differ dramatically from that of the charismatic decision maker (Raelin, 2003). Leaders are designers, teachers, and stewards. These roles require new skills: the ability to build shared vision, to bring to the surface and challenge prevailing mental models, and to foster more systemic patterns of thinking. In short, leaders in learning organizations are responsible for building organizations where people are continually expanding their capabilities to shape their future – that is, leaders are responsible for learning (Senge, 1990, p.9).

5.1. Creating supportive Corporate culture

Corporate culture is defined typically in terms of the way people think, which has a direct influence on the ways in which they behave. For example, recognizing that culture manifests itself in terms of behavior and espoused values, Schein (1998) suggests that the essence of culture lies in the set of “underlying assumptions.” Similarly, Deshpande and Webster (1989, p.4) define corporate culture as a “set of shared assumptions and understanding about organization functioning.” The theoretical argument about culture is that it is a complex system of norms and values that is shaped over time (Schein, 1985). It is generally understood as the social glue that holds organizational members together and expresses the values, social ideals, and beliefs that members share. A firm’s culture therefore, through its values and operating beliefs, exerts commanding influences on how its employees perceive events (Denison and Mishra, 1995) and how they behave (Schein, 1985, Barney, 1986). Corporate culture is known to be important for the success of projects involving organizational changes. Corporate culture encompasses values and behaviors that “contribute to the unique social and psychological environment of an organization.

According to Needle (2004), corporate culture represents the collective values, beliefs and principles of organizational members and is a product of such factors as history, product, market, technology, and strategy, type of employees, management style, and national culture. Culture includes the organization's vision, values, norms, systems, symbols, language, assumptions, beliefs, and habits. Ravasi and Schultz (2006, pp. 433–458) wrote that corporate culture is a set of shared assumptions that guide what happens in organizations by defining

appropriate behavior for various situations. It is also the pattern of such collective behaviors and assumptions that are taught to new organizational members as a way of perceiving and, even, thinking and feeling. Thus, corporate culture affects the way people and groups interact with each other, with clients, and with stakeholders. In addition, corporate culture may affect how much employees identify with an organization (Schrodt, P. 2002, pp.189-292).

It is necessary to build such a corporate culture that will encourage and stimulate changes. There is a strong body of opinion that corporate culture can be consciously designed and manipulated (e.g. Schein 1985; Block 2003) and leadership is a necessary factor in this process (Senge, 1990; Vera and Crossan, 2004., pp. 222–240. Waldman et al., 2001). Therefore, the top executive task is to create the kind of corporate climate which will support their changing efforts.

Table 3

Corporate Culture: Adaptive vs. Unadaptive Corporate Cultures

Corporate Culture		
Adaptive versus Unadaptive Corporate Cultures		
	Adaptive	Unadaptive
Core Values	Most managers care deeply about customers, stockholders and employees. They also strongly value people and processes that can create useful change.	Most managers care mainly about themselves, their immediate workgroup or their product. They value the orderly and risk-reducing management process much more highly than leadership initiatives.
Common Behavior	Managers pay close attention to all their constituencies, especially customers, and initiate change when necessary to serve their legitimate interest, even if that entails taking some risk.	Managers tend to behave somewhat insularly, politically and bureaucratically. As a result, they do not change their strategies quickly to adjust to or take advantage of changes in their business environments.

Source: „Corporate Culture and Performance“, Kotter, J.P. and Heskett, J.L.

Traditional predictive management would institute strict procedures and policies, and use this to drive interaction in place of what was really happening. But to achieve an adaptive organization, anything might change, so thus top executive managers don't specify the policy. Instead they need to be a lot more transparent about what is really happening.

5.2. Creating a Shared Vision

Identifying and communicating a clear vision is one of the most important functions a business leader can perform. All business leaders should understand the basic elements of visioning and how to communicate a clear

vision. A shared vision not only will drive and guide the organization, but it will increase the effectiveness of the organization in terms of productivity and more efficient decision making. In order to create a vision, business leaders provide a meaningful plan to succeed and define their purpose and core values in a way that is meaningful, easy to remember, and transparent - without any hidden agendas. In order to adapt, a company must have its antennae tuned to signals of change from the external environment, decode them, and quickly act to refine or reinvent its business model and even reshape the information landscape of its industry.

To be adaptable, it is necessary to think more holistically (Wheatley, 2005): Signal detection and experimentation require a company to think beyond its own boundaries and perhaps to work more closely and smartly with customers and suppliers. This flies somewhat in the face of the unspoken assumption that the unit of analysis for strategy is a single company or business unit. A shared vision also helps unite and inspire all the parts of an organization to adapt together toward a common purpose.

5.3. Communicating the Shared Vision

After establishing a vision, communicating it becomes an important final step. James O'Toole, author of *Leadership from A to Z*, describes this communication in broad terms, "The task of leadership is to communicate clearly and repeatedly the organization's vision...all with the intent of helping every person involved understand what work needs to be done and why, and what part the individual plays in the overall effort." The vision can be incorporated into objective setting and performance review standards as well as interdepartmental projects. These steps serve to energize and direct the group's actions as stakeholders and advertise their efforts to upper management.

An Effective Communication is the key to success of adaptive organizations. The speed and flexibility with which manufacturing leaders can effectively respond to rapid and often complex market and business change will increasingly determine their organization's success. Whether they face unexpected business disruption, sudden competitive attack, or major market shifts, both large and SMB manufacturers need to ensure their enterprises are in a constant state of readiness by developing highly adaptive processes and working cultures that can meet the multitude of business challenges today and tomorrow. In particular, adaptive organizations are information intensive and require task bundling and intensive communication to ensure coordination *ex post*. In contrast, rigid organizations can rely on rules and task guidelines to coordinate tasks *ex ante*, allowing such organizations to reap the benefits of specialization. In particular, the better the coordination between employees, the more flexibility they receive and hence the higher the returns to further improving coordination. In the presence of better communication, organization pays to be more adaptive, which in turn increases the need for additional coordination.

An organization cannot adapt to new circumstances if vital information is hoarded by any group. Only an unfettered exchange of insights and ideas among all the groups and sub-groups within the organization can build a comprehensive understanding of the environment and generate the right adaptations and solutions. One approach is to develop “open standards for teams” to build trust, collaboration, and share ideas across the organization. Common methods of communication, approaches to problem solving, and modes of behavior are necessary to remove restrictions on the effective flow of knowledge and ideas that is so important to truly understanding a rapidly changing environment and adapting to its challenges and opportunities. These methods and standards should encompass all teams within the company and transcend all organizational boundaries. We believe top executives share the same organizational goal is a necessary first step in achieving successful adaptation process.

6. CONCLUSION

For business leaders struggling to keep their companies lean, innovative, and competitive, the situation today is marked most of all by uncertainty and unpredictability. The economic world is growing more and more chaotic and unpredictable. Adaptiveness suggests a diversity of means available to address this challenge. One of the approaches is for the company to become a learning organization. Previous researches show that any change in organization depends on managers' transformation. In the context of learning organization implementation and adaptation of organization to its external environment, the reason for so many failures might be that top executive managers pay insufficient attention to the corporate culture and personal skills in developing and sharing a common vision. A fit between corporate culture and the leaders assumption embedded in learning organization concept is critical for success of adaptation implementation process. Unfortunately, there is a lack of study on how corporate culture and leadership personal competences (expecially in creating and sharing common vision) affect on adaptation implementation process and how the organization can foster a corporate culture conducive to becoming an adaptive organization. We believe that the reason for the deficiency of a larger number of companies implementing learning organization's concepts is simple the lack of successful leadership who have no real comprehension of the type of commitment it requires to build such an organization.

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MARKETING

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ATTITUDES TOWARDS FOOD PRODUCTS FOR CHILDREN: A PARENTAL VIEWPOINT

JEL classification: M3

Abstract

During the last decades sociological changes have modified the role of children within families: participatory models have become more widespread, to the detriment of more authoritative ones: this change has had consequences also in reference to families' purchases. In scientific literature some scholars show that this influence is real and marketers try to take advantage of this through a communication style which attempts to "teach" children how to eat like their parents: this is so-called nag factor. This is a quantitative research. In order to understand which are the parental attitude towards kids food products, a questionnaire has been administered both in some schools (nursery and primary) to a random sample of parents, representative of a larger sample of kids (200 in all). Findings showed that pestering is a real attitude, in particular among the littlest children. Moreover these findings reflect in part the reality described by marketing literature: children influence the purchasing decisions of their parents, but this influence decreases when mothers and fathers are more aware of the importance of a quality based diet.

Key words: food marketing, children, quantitative research

1. INTRODUCTION

Sociological changes during the last decades have revolutionized the role of children within families: authoritative educational model made space to a more participatory one, and this arises also in reference to purchasing decisions. Contemporary children, moreover, are more and more involved in different marketing initiatives and are also pressed by advertising, making them more aware of their role as consumers. In spite of this, parents remain the real purchasers and the real reference of children's food habits. From this point of view Mitchell et al. (2013) distinguish five typologies of influence of parents on children's food habits. These are:

- exposure: it is important to make children trust and taste a food they did not know. According to research they need up to 15 exposures;
- role-modelling: parents' tastes and preference will inevitably influence those of their children;
- coercive feeding practice: this is related to the parental behaviour during the mealtime. For example pressure to eat is linked to neophobia and food avoidance;
- restriction, rewards, and using food to soothe;
- parenting styles: in particular there are four kind of styles to distinguish, that are authoritative, authoritarian, indulgent and uninvolved. According to research through the authoritative model parents could obtain more positive outcomes from children.

Studying the aspects relative to kids' influence on parents is essential to understand the way marketers have to match little consumers' desires with the necessity of quality required by mothers and fathers. From this point of view this research investigates how children condition parents' purchasing decisions, initially through a review of the main studies relative to this topic and then through an empirical survey, with the objective to understand these dynamics within families.

2. A LITERATURE REVIEW

Literature on children and marketing is various. First of all there are some scientific studies relative to the analysis of children as consumers. Valkenburg and Cantor (2001) distinguish four stages of development:

- infant and toddlers, who love music and slow language (so called motherese). At 4-5 months they begin to appreciate advertising and Tv programmes characterized by the presence of coloured characters; between the age of 18-24 months they begin to require products to their parents (McNeal, 2007);

- preschoolers (2-5 years old): they do not understand the difference between tv programmes and advertising, moreover they pay their attention to specific details and in psychological terms this is the phenomenon of centration. At 4 they begin to appreciate faster rhythms and have a preference for magic and childish creatures as well as animals and familiar contexts; at 5 children begin to negotiate their requests with their parents;

- early elementary school (5-8 years old): adventure situations are particularly appreciated during this period;

- later elementary school (8-12 years old): the most important feature is their realistic and incisive approach, which emerges in a more rational ability to compare products; they begin to appreciate sport champions and actors as testimonials.

McNeal (2007), on the other side, describes how the relationship between parents and kids during the shopping experience evolves. Up to 6 months newborns observe their parents behaviour in the points of sale; from 6 to 24 months children begin to require some products, also when they are not able to speak (using their hands or making noises); from 24 to 48 months they beg leaves to their parents to purchase some products and, at the same times, they learn to grab and put them in the shopping cart; from 48 to 72 months they become more aware about the purchasing process, learning that it is composed by the phases of selection, payment and consumption; finally from 72 to 100 months they can make their independent purchases using their pocket money.

Kids marketing studies include, moreover, some topics such as the relationship between kids and brands (Tatlow-Golden et al., 2014; Bachmann Achenreiner and Roedder John, 2003), the role of characters (Castonguay et al., 2013; Acuff and Reiher, 1998) and the marketing communication to children through the new technologies (Henry and Story, 2009).

In reference to the influence of children on family's purchasing decisions there are some studies to cite. Ward and Wackman (1972), for example, studied the way children affect their mother's purchases in reference to a series of products, finding that most of their attempts were focused on food; Wilson and Wood (2004) examined, through a qualitative research, the particular situation of supermarket shopping, finding that kids play an effective influence during this experience, in particular considering those products specifically studied for themselves: on the contrary, according to Mangleburg (1990), this influence is minor in the case of products which are sold for an older target (for example there are references to cars and televisions). Similar conclusions were highlighted by Thomson et al. (2007) who underlined the knowledge resource as one of the most influential on children and in fact, as stated by these scholars, "more knowledge a child had in relation to a product, the more influence they had over the purchase decision" (p.194).

Shoham and Dalakas (2005) studied Israeli children, finding that their influence on parental shopping is similar to that exercised by American kids, highlighting that it overcomes cultural differences.

A research field linked to this topic is that relative to the so-called pester power also denominated nag factor, which can be defined as the attempt of children to influence their parents' purchases through a pestering behaviour with fathers and mothers. Through a particular communication style, marketers "teach" children to pester their parents, with the objective to make them surrender. According to Idell (1998) there are two typologies of nagging:

- persistent nagging: children torment their parents through tantrums, with a loud tone of voice and insistent requests, with the clear aim to make their parents exhausted and more inclined to satisfy their desires;

- importance nagging: it is more elaborated because children try to be persuasive with their mothers and fathers, especially explaining them the "fundamental" reasons to buy the product they want. Henry and Borzekowski (2011) showed the power of nag factor to influence children: in particular they organized a survey with 64 mothers of preschoolers, which highlighted that actually children pester their parents during the purchasing experience and the most attractive elements for these little consumers are packaging, presence of characters and advertising.

Nicholls and Cullen (2004) describe a child-parent consumption matrix, in which pester power occupies the fourth quadrant: it represents, according to them, the child's necessity for self-realization through consumption, overcoming parents' control. In the first quadrant "Parental Power", children try to exert power but parents control their desires, also trying to convince them to other purchases; in the second quadrant "unresolved conflict" both the parts attempt to control the purchases: children try to plead but also to threaten, in a persistent way. The self-realisation is achieved in the situation described in the third quadrant "Consensual shopping" when both parents and children reach their self-definition.

Figure 1 The Child-Parent consumption matrix according to Nicholls and Cullen (2004)

<i>Child</i>	Desire for control	Parental Power	Unresolved conflict
	Self-realisation	Consensual shopping	<i>Pester Power</i>
		Self-realisation	Desire for control
	<i>Parent</i>		

Source: Adaptation from Nicholls and Cullen (2004)

Lawlor and Prothero (2011) distinguish four main kind of reactions to pester power, in the case of parents: negotiation, wait, refusal or surrender.

According to Ebster et al. (2009) children's requests are more frequent:

- considering the age, when they are at the early developmental phase;
- from the point of view of visual merchandising, when products are more visible so when they are placed at children's eye level;
- when they are free to move, so when they are not in shopping cart.

Age and family communication are two variables that affect children's purchasing influence, as shown by Rose et al. (2002) in a study carried out in the USA and in Japan involving 3 to 8 years old children. Nagging is also related to quality of food: according to Kelly et al. (2006), in fact, unhealthy food are often bought to children as treats.

An important variable of influence is definitely advertising. Gorn and Goldberg (1974) have shown, studying a sample of 8-10 years old children, that the evaluation of a product (in this case a toy) becomes more positive after observing a spot; moreover this was confirmed in another research conducted by these scholars (1977); the same Gorn and Goldberg (1982) studied the influence of advertising on nutrition, finding that it affects children's preferences, both for healthy and unhealthy food. Another study to cite is that of Ferguson et al. (2012), carried out considering a sample of 75 children, from 3 to 8 years old. They had to watch some fast food advertising, relative both to unhealthy food and to a healthier one; then they had to select their favourite food and their parents tried to convince them to chose the healthier one. Actually they did not listen to their parents and selected the kind of food observed during the advertising time, confirming that it is a powerful tool of communication, because of its influence on their food tastes and preferences.

3. THE EMPIRICAL RESEARCH: PARENTAL ATTITUDES TOWARDS KIDS FOOD PRODUCTS

This quantitative research is aimed to understand how children influence adults' grocery shopping.

The choice of an interview directed to parents has come from the will of understanding how their behaviour changes under the kids' pressure: the focus was on parents and not on children because they hold the purchasing power concretely.

3.1. Sample, data collection methods and statistical methods

The statistical analysis has concerned a sample of parents interviewed through the administering of 300 questionnaires handed out in some educational institutions (nursery and primary schools).

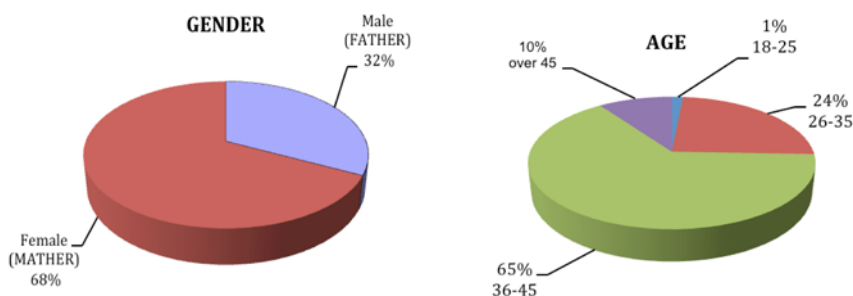
Researchers have chosen people from the south of Italy: the decision was taken because of the worsened economic conditions caused by the economic crisis in this territory, which emphasize a more rational parents' buying behaviour.

133 valid completed questionnaires, representative of a larger sample of kids (200 in all) were returned out of the 300 questionnaires dispatched.

Demographically the sample was composed by a prevalence of women \ moms and by a high percentage of parents between 36 and 45 years old:

- 68% mothers and 32% fathers;
- from the point of view of age this was the composition:
 - 36 -44 years old parents (65%)
 - 26-35 (24%),
 - over 45 (10%)
 - 18-25 (1%);
- from the point of view of education 56% had a high school diploma while 31% a University degree.

Figure 2 Composition of the sample



Source: Authors' own elaboration

Questions' typology was various: there were a multiple choice options, Likert Scale questions as well as point based ones.

Data were elaborated through the use of the statistical software SPSS. The objective of this research is essentially to highlight the dynamics of children and parents relationship during the food shopping.

3.2. Results and discussion

The first part of this survey has been focused on the influence of nag factor on parents' purchasing decisions: the relative question indicated five items, which represented different levels of intensity of this phenomenon. Changing the classic subdivision made by Acuff (1998), in order to obtain a more precise

analysis of children, researchers considered three main age groups that were 3 to 5, 6 to 7 and 8 to 11 years old: findings show that pestering is a real attitude, in particular among the youngest children, in fact parents confirmed that they request persistently or insert spontaneously in the shopping cart some products (52% of 3-5 years old kids). Even if the nag factor is traceable also in the other two segments, it can be observed that elder children develop a more collaborative attitude (61% of tweens contribute to select products): in other words pester power techniques lose gradually their efficacy with the development of cognitive abilities by children.

Another important insight about this first analysis highlights that most of children like going to grocery shops, confirming that in this “playful scenario” the shopping process is lived by kids as a funny experience, in fact a high percentage of them is present in each of the three segments.

In order to understand where parents decide to purchase food products both for themselves and for their children two specular questions were asked: researchers have used a Likert scale from 1 to 5 (1=never; 2=Rarely; 3=Sometimes; 4=Often; 5=Always) to get a view on the parents’ attitudes for different kinds of store. Differences emerged in reference to discount stores because parents declared to pay more attention to quality of food for their children, also paying higher prices.

The differences detected show, in particular for the format “Discount”, that parents are more attentive to direct purchases to their children, showing more attention to quality. The analysis highlights that parents are more willing to make more sacrifices for children, to the detriment of the quality of products direct to themselves.

These data are in contrast with Innocenti Report Card 12 made by the Research Centre of United Nations Children’s Fund (UNICEF), which show how a lot of families, afflicted by economic crisis, have been trying to save money through purchase of less quality products. Since 2008, the percentage of households with children that are unable to afford meat, chicken, fish or a vegetable equivalent every second day has more than doubled in countries like Estonia, Greece, Islanda and Italy. The effects of recession are clear, but the survey shows an attitude likewise clear to preserve the children’s quality of life.

This is in part shown also by other data obtained analysing an importance scale question with seven purchase drivers (brand, price, packaging, promotions, advertising, children’s requests, characteristics described on labels).

Table 1

Mean points relative to this question

		<i>Mean</i>
1.	Brand	3,38
2.	Price	3,26
3.	Packaging	2,14
4.	Promotions	3,47
5.	Advertising	1,80
6.	Children's requests	3,29
7.	Characteristics described on labels	3,95

Source: Authors' own elaboration

Averages show that brand is considered a reliable element but also promotions and prices seem to play an important role; moreover most of the sample has highlighted the propensity to listen and satisfy children's requests. As indicated in the following table advertising, analyzed from parent's viewpoint, plays a secondary role so children represent the real vehicle of information.

In relation to the previous question it was carried out a cluster analysis (Bailey, 1994), aimed at identifying the segments based on the driver of purchase.

Table 2

Cluster Analysis

	Component		
	1	2	3
Brand	.619	-.054	.128
Price	.095	.854	-.011
Packaging	.761	.126	-.303
Promotions	.137	.728	.067
Advertising	.686	.134	.230
Children's requests	.097	.042	.948
Product's characteristics (label)	.321	-.393	.019

Source: Authors' own elaboration

Starting from these results a cluster analysis has been conducted in order to identify market segments on the base of these drivers: extraction method was a principal component analysis and the rotation method a Varimax with Kaiser normalization (The Varimax method is commonly accepted because it emphasis

on the simplification of the structure of the factors in terms of variables . The matrix Λ is simplified by amplifying the highest correlations of each factor and reducing the lower ones, facilitating data interpretation).

As a result this analysis has generated three components, which identify three demand segments:

Table 3

Identified segments

<i>Components</i>	<i>Drivers</i>	<i>Segments</i>
Component 1	Brand, packaging, advertising	Preference only for noted products
Component 2	Price, promotions, label	Searching for a good relation between quality and price
Component 3	Children's requests	Every child's desire is an order

Source: Authors' own elaboration

Then there were two similar questions in order to understand if there are differences between the purchase made in solitude and that carried out in the company of the kid. In this case the analysis was based on the average scores. The key item among these questions had the function to underline the parents' tendency to spend more to satisfy kids' demands, in order to confirm the effect of kidfluence on parents. The first fact that stands out, in fact, was that the difference between the scores was quite clear, demonstrating that parents "suffer" the presence of their children somehow, tending to spend more.

On the other hand, data show that there is enough self-control in the expenditure process: parents, probably due to the current economic period, try to reach a compromise between saving money and satisfy the requests of their child.

Another issue explored by the researchers concerns also the comparison between children's influence and that of other typology of subjects: the relative questions have been organized considering the theory of planned behavior by Ajzen (1991), which highlights that the intention to act influences the individual behaviour: findings show that parents' purchasing decisions are influenced also by the paediatrician and the partner.

The analysis separates the influence in two types: immediate and general. The first one coincides with the ability to modify the will of purchasing during buying decision process and it is characterized by a greater presence of impulse purchases, while the second one coincides with a long term change in the attitude. This influence can be explained in this way: children exercise an immediate influence, which consists in modifying the will to purchase during the

same shopping experience (short period influence) while paediatricians' and partners' advices are linked with general food habits (long period influence).

In order to investigate the role of television on influence attitude, the researchers have examined a crosstab considering two different dimensions, that are the duration of exposure to TV programmes (low or high) and the parents' tendency to spend more in order to satisfy their children's desires. Adding together the percentages relative to strongly disagree and disagree on the one hand and the other responses on the other hand, a link between high TV exposure and propensity to request was found: probably the guilt feeling of some parents for having neglected their children could be "compensated" by a greater availability to satisfy their requests.

In order to obtain more detailed information on the relationship between parents and big brands, understanding whether for the kids market food the term "brand" takes on the meaning of "quality and reliability"; to get this answer it was compared with private labels. The study was carried out, once again, through the analysis of the average scores.

In terms of brands particular significance has been given to private labels: brand as synonymous of reliability and quality but this regards famous brands as well as suppliers' ones. Analysing the mean points given by parents (expressing their degree of agreement from 1 to 5 in reference to a series of sentences) it came to light that private labels are appreciated not simply for their lower price, but because of their quality.

Table 4

Importance of brands

<i>Item</i>	<i>Mean point</i>
I absolutely trust in well-known brands	2.79
I compare ingredients of well-known brands with private labels' ones	3.09
If the quality is the same I prefer private labels	3.20
I purchase private label products because their price is Lower	2.65
I purchase unbranded products	1.68

Source: Authors' own elaboration

The highest score about item 3 followed by the item 2 underline the growing consensus for private labels in the competition area of larger distribution companies.

Parents' perception in reference to some food for children has been measured through a Fishbein Analysis. According to Fishbein (1967) the mental attitude towards a products depends on two factors: the awareness of products' characteristics and the level of importance that an individual appoints to the benefits that these characteristics give (Castaldi and Mauri, 2008). The sample had to evaluate six types of food (from 1 to 7), selected from the most consumed by children, on the basis of six attributes: good taste, playful aspect, quality of ingredients, affordable prices, children's wants and, finally, nutritional values.

Nutritional values and quality of ingredients are the components with the highest differentiation coefficient, followed by playful aspect and children's wants. Price, on the contrary, does not represent a differentiation variable and this can explain the reason why food products for kids are often sold at a higher price than the corresponding version for older targets. It is clear, examining these data, that healthiness and quality are the most important criteria of choice for parents.

Table 5

Fishbein Analysis

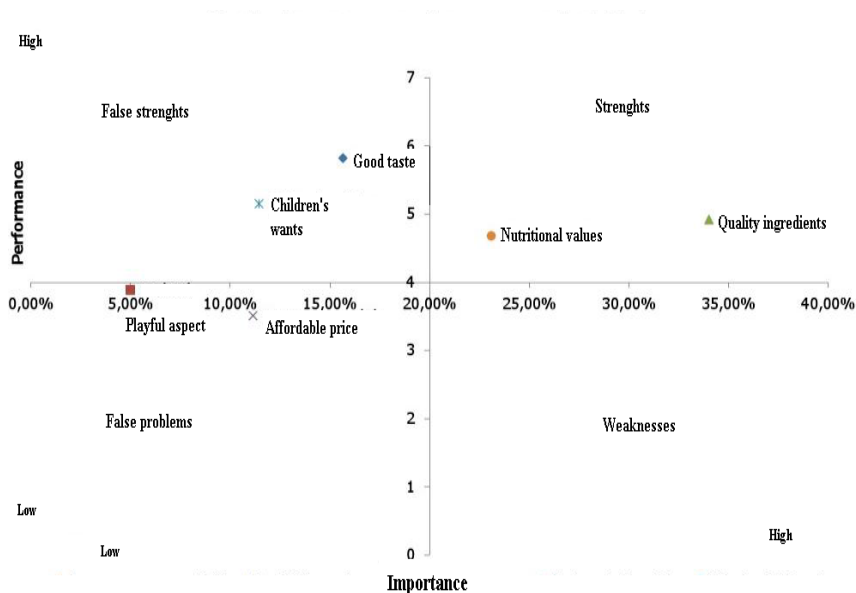
<i>Product</i>	<i>Good taste</i>	<i>Playful aspect</i>	<i>Quality of ingredients</i>	<i>Affordable prices</i>	<i>Children's wants</i>	<i>Nutritional values</i>	<i>Weighted mean point</i>
Kinder (Ferrero) snacks	5.82	3.89	4.92	3.51	5.15	4.68	3.811
Coca cola	4.30	2.86	1.93	3.29	3.88	1.69	2.01
Fruits	6.27	3.41	6.77	5.02	4.01	6.87	4.74
Chips	4.45	4.92	2.47	3.74	4.92	2.34	2.51
Happy meal	3.59	4.34	2.42	3.38	3.46	2.54	2.21
Ice creams	6.22	5.48	5.13	4.45	5.92	5.01	4.27
Import. %	15.66	4.99	34.02	11.15	11.45	23.10	100%
Differen.	2.07	2.24	2.28	1.95	2.20	2.36	
Determin.	0.32	0.11	0.78	0.22	0.25	0.54	2.22

Source: Authors' own elaboration

Considering the analysis more in detail, the importance-performance matrices highlight real strengths, real weaknesses, false strengths and false problems of every selected product: nutritional values and quality of ingredients

turned out strengths for Kinder snacks, fruits and ice – creams while, on the contrary, are weaknesses for Coca-Cola, Happy-Meal and chips. In spite of their high sugar content Kinder snacks and ice creams are linked to healthy features: for these kind of products it will be essential, from a communication strategy point of view, to highlight these characteristics.

Figure 3 Example of importance–performance matrix
(Kinder sweet snacks)



Source: Authors' own elaboration

4. CONCLUSIONS

Findings of this research reflect in part the reality described by marketing literature: children influence the purchasing decisions of their parents, but this influence decreases when mothers and fathers are more aware of the importance of a quality based diet. They are ready to spend more for food their children’s nutrition, but this does not depend by the will to satisfy kids’ tantrums but substantially to make them eat healthier food. In this context the largest companies are not always the reference point for parents, who often decide to privilege private labels because of their quality and lower prices. This means that from a strategic viewpoint, companies should focus their attention to find a balance between more competitive prices, quality ingredients and a good nutritional value.

The topic analyzed can be considered very current because parents are the responsible of their children's diet, and the preferences developed during the childhood will influence those of the following ages: from this point of view marketing could play an important role to collaborate with mothers and fathers. In spite of this, sometimes the relationship between parents and marketing is a little bit conflicted because of the traditionally unhealthy nature of food advertised for kids: it is not simple for parents to reach a compromise between their children's desire to consume the food they see on commercials and the rules of an adequate nutrition. Considering their influence on families' purchases, companies should explore the extraordinary opportunities of healthy food: marketers should work with families, pediatricians and psychologists in order to improve their supply and to match parents' needs. In other terms marketing should take advantage from the children's influence on parents, creating strategies to satisfy all the parts involved in the purchasing process.

This study has some limits: first of all the sample is unbalanced between men and women and this can have influenced the findings; moreover the sample has to be enlarged in order to have more a more grounded explanation of the phenomenon. For future research it will be important to understand the differences between mothers and fathers to be influenced by children: their different approach could highlight a different attitude towards their children's choices.

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DESIGN AND COMMUNICATION OF ECOLOGICAL CONTENT ON SUSTAINABLE PACKAGING IN THE YOUNG CONSUMERS' OPINIONS

JEL classification: D03, D47, M39, Q56, Q59

Abstract

Many companies today have noticed the growing sensitivity of consumers to social problems, reflected by their interest in environmental concerns, e.g. the usage of sustainable packaging materials that are eco-friendly and safe for consumers and the environment. Producers seek, often based on intuition rather than knowledge, eco-arguments for their packaging in order to affect the perceptions of buyers and influence their behaviour. Creating an effective design and content for environmental messaging on sustainable packaging may be a significant element in building a competitive advantage for both product and brand. Therefore, the main objective of this paper will be to answer the following questions: What content do consumers expect for ecological messages on packaging? Which attributes of sustainable packaging have a positive impact on consumer behaviour? In what ways are consumers' purchasing intentions based on sustainable packaging? To answer these questions the results of research conducted among Polish and French students will be presented.

Key words: design, sustainable packaging, marketing communication

1. INTRODUCTION

In recent decades the importance of the natural environment as a determinant of corporate marketing activities has increased significantly. We are witnessing a gradual escalation in environmental threats, but also a growing concern for the environment. The problems of refuse and packaging waste, environmental degradation as a result of unreasonable human activity, the plundering of the Earth's resources, as well as the effects of global warming are increasingly evident.

Concern for the environment has led to the emergence of an environmentally friendly green trend, which is reflected in the concept of sustainable marketing (Armstrong and Kotler, 2015, p. 709). Sustainable marketing is socially responsible marketing conducted with concern for natural resources, which aims to fulfil the needs of present-day consumers as well as those of future generations. Sustainable marketing ought to be based on an efficient marketing system in which consumers and businesses work together for the good of the environment. It turns out that the idea of sustainable marketing can be supported through effective packaging communication, which influences the attitudes and the buying behaviour of consumers. Sustainable packaging is a term that is not very precisely defined and which is difficult to measure (Sonneveld, James, Fitzpatrick, et al, 2005; Lisińska-Kuśnierz, 2010, p.21). Lee and Xu, 2005). When defining sustainable packaging, researchers often refer to the criteria specified by the Sustainable Packaging Alliance (SPA) in 2002 (effective, efficient, cyclic, safe), or those developed by the Sustainable Packaging Coalition (SPC) in 2005, according to which sustainable packaging

- is beneficial and safe for individuals and communities throughout its life cycle,
- meets market criteria for both performance and cost,
- is sourced, manufactured, transported and recycled using renewable energy,
- optimises the use of renewable or recycled source materials,
- is manufactured using clean production technologies and best practices,
- is made from materials healthy throughout the life cycle,
- is physically designed to optimise materials and energy,
- is effectively recovered and utilised in biological and/or industrial closed loop cycles.

Nowadays many companies (such as Tesco, Walmart, McDonald's, Carlsberg and Unilever) try to independently define the attributes of sustainable packaging (Packaging for sustainability 2012, <http://www.unilever.pl/sustainable-living-2014/>; <http://www.o-i.com/Sustainability/>). Such individual attempts, however, tend to create ever greater confusion and discomfort among consumers, who are unable to differentiate between packaging which is sustainable and that which is not. The variety of markings and environmental messages appearing on

the packaging often produces incomprehension or even suspicion among buyers, and creative forms of packaging can be misleading and can confuse consumers in their decision-making. A minimalist packaging design often suggests organic content, and verbal messages create the impression that the manufacturer is eco-friendly. Therefore, it is becoming increasingly important for consumers that the packaging should communicate an understandable and reliable message with regard to environmental issues. On the basis of ecological symbols and messages on the packaging a customer should be able to verify the ecological attributes of both the product and the packaging. In this article the author attempts to identify the kind of environmental messages that consumers expect to find on the packaging and that could consequently inspire their greater confidence in the product and brand. In addition, the role of sustainable packaging in the buying decision process will be examined, as well as the question of whether the knowledge that packaging is sustainable is likely to alter the choice of a product.

It is assumed that a consistent and responsible use of specific eco-messages will generate confidence and positive attitudes among consumers towards such products. When a consumer trusts the environmental information on the packaging and has a favourable attitude towards it, their shopping preferences will be affected. Verifying the messages and ecological symbols used on product packaging is almost impossible from a consumer's perspective (for example, how can a consumer check whether the packaging is indeed made from recycled material?). Therefore, trust and the credibility of the message are crucial factors affecting purchase intentions.

2. THE ROLE OF PACKAGING IN THE BUYING DECISION PROCESS

Packaging is a modern tool of integrated marketing. Among the many promotional tools which can be found at a point of sale, packaging remains the most important factor which influences consumers in the purchase decision process. This so-called "five-second advertising of a product" helps consumers cut through the communication noise in the shop which offers hundreds of products as well as different promotions (Kotler and Keller, 2012, p. 372). Effective packaging guarantees that the product will be noticed by the consumer, produces a purchasing intention as well as creating positive impressions and emotions. Packaging is not only a tool for effective communication, but also a source of sensations and experiences.

The development of the packaging industry was related to the spread of self-service forms of sales, which promoted the expansion and diversification of the range of products on offer. This dynamic increase in the supply of products and services was accompanied by a rapid development of tools and forms of marketing communication. Contemporary marketing communication tries to make contact with the target market in many, often surprising, places, using

creativity and originality in terms of both the form and content of the message. However, the point of sale is still the place where the effectiveness of communication is the highest. Self-service forms of retail offer spaces within which there are a variety of marketing communication tools, among them being the key role played by packaging. The advantage of packaging over other traditional tools employed by marketing communication lies in the fact that it influences consumers when they actively participate in the communication process: they are in a retail outlet, have access to a range of products, have some needs and want to satisfy them. Over 70% of buying decisions are taken right in front of the shelf, a visit to a shop lasts on average approximately 20 minutes, and a buying decision takes on average 12 seconds (Clement, 2007, pp.917-928). Hence an important role is played by packaging in that it attracts attention and communicates with the consumer at a critical point in the decision-making process, when the process is about to be finalised.

Packaging, through a combination of different elements and features, can communicate the quality, price, size and content of a product; as well as make the product noticeable and suggest its specific benefits to consumers. This combination of a set of elements and attributes for packaging is defined as the design, and which together create the image of a product and reflect its content. Packaging design includes elements relating both to the aesthetics and appearance of the packaging as well as to its functionality and overall quality (Jerzyk, 2014, pp. 391-398). Sometimes the packaging design is eco-friendly in order to emphasise the naturalness of the product or if the design process takes into account the principles of sustainable development.

The role of packaging and its environmental information is increasingly important for developing the awareness of, and influencing the behaviour of, consumers. Significant potential benefits can be generated by the green trend in the area of marketing communication through packaging (Atkinson, Rosenthal, 2014, pp. 33-44). The expectations of consumers towards packaging in terms of compliance with environmental standards are growing, and manufacturers and retailers have to respond by addressing these demands. As a result, they often quite freely create packaging communications which tend to be misleading and incomprehensible, and which do not meet the expectations of the consumers. Thus there seems to be an urgent need to regulate and control such activities. It is assumed that consumers' interest in gaining knowledge about the sustainable activities of companies and brands corresponds to their increasing sense of responsibility with regard to environmental issues (Polonsky, Bailey et al., 1998, p. 281). This growing consumer sensitivity creates new challenges for marketing communication in terms of designing the content and forms of communication.

3. METHODOLOGY

An auditorium questionnaire survey was conducted among 161 students, both men and women, aged between 17 and 30 years. These were mostly young consumers who declared that they made purchases for themselves and their households. The respondents were selected using a combination of purposive and random sampling. The study included respondents living in France and Poland, in order to assess to what extent environmental awareness and the knowledge of sustainable consumption and sustainable packaging is related to the level of economic development and the maturity of the market. It was assumed that better educated and younger consumers are more aware of environmental issues and that their behaviour tends to be more thoughtful and ethical in the sense that when selecting products and services they are guided not only by economic principles, but also by ecological, social and ethical ones (Dąbrowska, 2001). The study paid particular attention to the perception of sustainable packaging communication and its acceptance by the respondents; sustainable packaging design understood as a collection of features and functions (functionality, appearance, durability and guarantee of product quality); as well as the respondents' intention to purchase a product packed in sustainable packaging. The following research questions were formulated:

1. What is the role (now and in the future) of sustainable packaging in the buying decision process?
2. How do consumers perceive the design of sustainable packaging?
3. What information shown on sustainable packaging is expected by consumers and inspires their confidence?

4. RESULTS

Familiarity with the term "sustainable packaging" was quite moderate among these young respondents. Only 40% of the respondents stated that they had encountered and knew this term. However, large discrepancies were noted between the answers of Polish and French respondents. Only 30% of Polish but as many as 71.4% of French respondents declared having knowledge in this respect. Such responses highlight the influence of market maturity on the level of consumer awareness with regard to environmental issues.

According to the respondents, sustainable packaging is of little importance in the buying decision process (Figures 1 and 2). The average mark for this factor was only 2.49 points (on a scale from 1 to 5; with 1 meaning not important at all, and 5 meaning definitely very important). The majority of the respondents do not take this criterion into consideration at all when shopping, and those who do were mostly people of higher material status. The majority of the respondents, however, expect that the importance of this factor may increase in the long term (Figure 3). Interestingly, though, the respondents declared a

willingness to change their choice of product to one that has sustainable packaging if the messages displayed on such packaging were credible. Thus it appears that although the importance of packaging as a factor which affects shopping choices is low, consumers' trust in the messages communicated through sustainable packaging can be crucial in the buying process. Consumers' confidence in what sustainable packaging communicates can translate into a positive attitude towards the product.

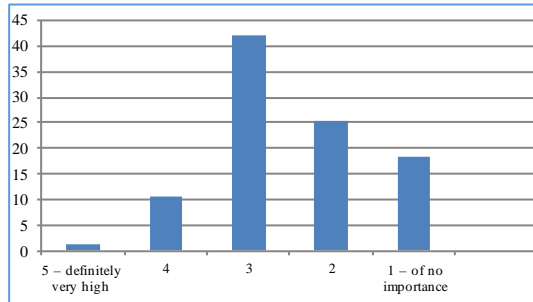


Figure 1 The role of sustainable packaging in the buying process

Source: own compilation based on survey results

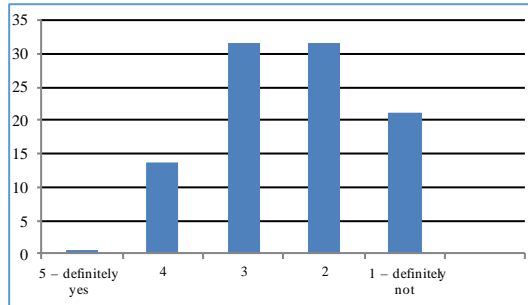


Figure 2 Do you choose products with sustainable packaging in your daily shopping?

Source: own compilation based on survey results

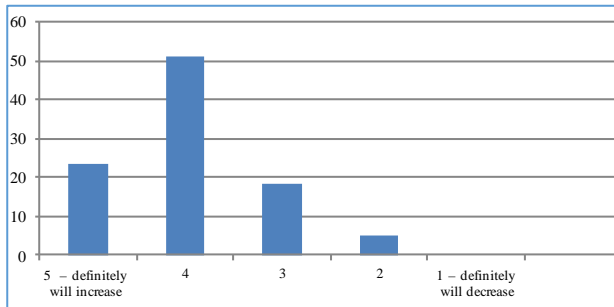


Figure 3 The role of sustainable packaging in the buying process in the future

Source: own compilation based on survey results

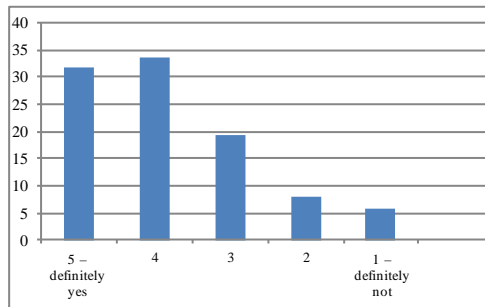


Figure 4 Would you decide to buy a different product if you knew that it had sustainable packaging?

Source: own compilation based on survey results

The next issue which was examined was the content of the messages displayed on the packaging and their credibility assessed from the perspective of consumers. The respondents were asked to evaluate eight messages that can be found on sustainable packaging. It turned out that the most desirable information from the point of view of the respondents was whether the packaging is recyclable and whether it is made of materials that are safe for the consumers' health (Table 1).

Table 1

Messages expected by consumers on sustainable packaging – mean values (on a scale from 1 to 5; where 1 means ‘not important’ and means 5 ‘definitely yes’)

Information	Total		Poland		France	
	Mean	SD	Mean	SD	Mean	SD
Recyclable	4.36	0.84	4.34	0.82	4.41	0.84
Made from recycled materials	4.13	0.93	4.05	0.92	4.31	0.94
Made from biodegradable materials	4.10	0.99	3.97	0.99	4.38	0.96
Made using renewable energy	3.80	1.05	3.65	1.05	4.12	0.97
Made from materials safe for human health	4.27	0.88	4.30	0.86	4.21	0.94
Made using minimal materials	3.45	1.03	3.41	1.03	3.54	1.05
Safe for individuals and communities throughout its life cycle	4.11	0.92	4.20	0.90	3.90	0.94
Designed to optimise the use of materials and energy	3.53	1.19	3.51	1.21	3.56	1.17

Source: survey results

The above list of messages was then aggregated to produce three variables. A factor analysis (Cronbach’s alpha was 0.824 and the KMO index was 0.816) revealed the three types of eco-messages most valued by the respondents. The first factor indicates that consumers react positively to messages relating to the recycling of packaging and to renewable energy sources. It is worth noting that the term “recycling” is widely known and is gaining more and more supporters. The second factor stresses the importance of information relating to the use of resources and the materials for packaging. The third one shows the need for consumers to have confidence with regard to information relating to their safety and health as well as the quality of the environment.

Table 2

Eco-messages expected by respondents

Information	Factors		
	1	2	3
Recyclable	0.793		
Made from recycled materials	0.864		
Made from biodegradable materials	0.859		
Made using renewable energy	0.741		
Made from materials safe for human health			0.915
Safe for individuals and communities throughout its life cycle			0.679
Made using minimal materials		0.728	
Designed to optimise the use of materials and energy		0.865	

Source: survey results

As part of the study the respondents were also asked what modifications to the design of sustainable packaging (inferior appearance, worse durability, shorter shelf life or inferior functionality) they would be willing to accept (Table 3). An analysis of the responses led to several conclusions. Firstly, respondents were quite reluctant to accept any changes in the design of the packaging which could decrease its quality. Secondly, when they had to select a change to the packaging which would affect them the least they indicated a deterioration in its appearance.

The young French respondents also added a shorter shelf life. However, the respondents were not prepared to accept any deterioration in the functionality of sustainable packaging.

Table 3

Consumer willingness to accept modifications to sustainable packaging which could decrease its quality – mean values (on a scale from 1 to 5; where 1 means ‘definitely not’ and 5 means ‘definitely yes’)

Modification	Total		Poland		France	
	Mean	SD	Mean	SD	Mean	SD
Inferior appearance	3.34	1.27	3.24	1.21	3.56	1.37
Inferior durability	2.52	1.17	2.41	1.12	2.77	1.24
Shorter shelf life	2.79	1.22	2.60	1.18	3.21	1.22
Inferior functionality	2.51	1.07	2.57	1.05	2.38	1.12

Source: survey results

5. CONCLUSIONS

The study showed that sustainable packaging is not an important factor in choosing which product to buy. It can be said that these results confirm the general opinion of consumers expressed in surveys about the insignificant role of packaging as a determinant of purchase. On the other hand, it is worth emphasising the importance of confidence and trust in the messages displayed on sustainable packaging. The majority of the surveyed consumers declare that they would choose a different product if they were sure that it had sustainable packaging. The information that the consumers expect to find and which would inspire their confidence relates to the recycling of the packaging, the economical use of source materials in the production of the packaging, as well as the health and safety of the consumer. Interest in recycling can result from an increasing awareness of the problem of packaging waste as well as the rising costs of its segregation and disposal which consumers must incur. Another group of messages desired by consumers related to the minimal use of resources and materials in the production of packaging. It seems, therefore, that buyers look for

information that will satisfy the need for being economical and not harming the natural environment. By choosing packaging that contains such information, consumers create an image as of themselves as people who are conscious of environmental threats and sensitive to the problems of the environment in which they live. The third group of messages which consumers are interested in are those containing information aimed directly at the consumer. Consumers express a lot of concern about marketing communication, which often does not serve their interests. Thus messages should emphasise consumer welfare, health and generally consumer protection to address the needs of today's consumers, who are wary but at the same time sensitive to environmental problems. It turns out that credibility is a key issue in creating consumer preferences. In addition, it is evident that customers are not generally willing to accept a lower quality for sustainable packaging. The easiest change to accept is a worse appearance of the packaging, while the most difficult one is a reduction in its functionality.

The effectiveness of sustainable packaging in the buying decision process can be enhanced by an appropriate content and form of communication which will promote positive attitudes among consumers and influence their purchasing intentions. The reception of this information also depends on the knowledge that consumers possess, which is connected with the maturity of the market but also with some cultural circumstances, which this study did not explore.

One limitation of the study is that it omitted the issue of the authors of the messages displayed on packaging. A lot may depend on who the message is from: the brand owner, the retailer, a government institution, a celebrity pictured on the packaging, or an independent organization. In addition, the significance of environmental messages on sustainable packaging may differ depending on the level of a consumer's involvement in the purchasing process. It could also be interesting to analyse the impact of the form of the communication, verbal and pictorial, on its effectiveness.

Finally, the studies conducted in Poland and France also indicate that the level of economic development and market maturity may significantly affect customers' needs in terms of sustainable packaging communication. Therefore further research ought to be conducted on larger samples and combined with extensive qualitative studies, which could help to better understand and interpret respondents' answers.

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THE CUSTOMER – ORIENTED APPROACH: THE CONCEPT AND KEY INDICATORS OF THE CUSTOMER DRIVEN COMPANY

JEL classification: M31

Abstract

The theoretical background of the customer - oriented approach is considered. The author's understanding of this concept for nowadays is to pay much attention to indicators of customer focus, dividing them into external, such as customer satisfaction and loyalty index; and internal, which are based on the performance of staff involvement. The concept of customer focus today - is the basis of competitiveness, sustainable development of the company through effective alignment of business processes of the organization of client relations.

Key words: customer-oriented approach, customer-centric company, customer focus, business processes, the key indicators of the customer driven company, the employee engagement

1. INTRODUCTION

Despite the fact that the number of publications in the field is growing rapidly, there are still many issues related to both the theory and practice of

building a customer-oriented company, developing business processes of interaction with customers, assess their effectiveness.

Views on the customer-oriented approach has changed over the past two decades. However, the modern interpretation of the concept of customer focus have included additional features. It is necessary to pay attention to the most profitable customers and try to keep them. Also, there is an urgent need to change internal business processes, creating a customer-centric company structure, in which the entire organization of the activity is subject to the objectives of understanding, to attract and retain the most valuable customers.

2. LITERATURE REVIEW

The growth of interest in studying customer oriented approach took place at the very beginning of the XXIst, when client orientation had stood definitively as separate line of research out of market orientation concept.

The concept of Market Orientation (MARKOR) which begun being formed at the early 90th of the last century [Kohli and Jaworski, 1990] and which has since continued to draw, attention of both researchers and practitioners . For a good while it was perceived as the business philosophy determining the main target of company's work in the market as total (in comparison to competitors) customers satisfaction.

In the 90th researchers set out to operationalize that concept - to realize which in particular action turns the theory into substance, to design company's market orientation criteria and their measurement methods. [Kohli and Jaworski, 1990, 1993; Narver and Slater, 1990], Having analysed research literature on marketing concept for the last 35 years as well as series of in-depth interviews with marketing and non-marketing experts, Kohli and Jaworski originally defined that the market focused organization is the one, what actions are based on market intelligence, that is the whole-corporate generation of knowledge of the market pertaining to current and future clients demand, and also on the spread of the knowledge among company divisions and on company-wide response to it. Authors emphasize that market orientation is not responsibility of marketing department only. This notion is considered by numerous respondents to Kohli and Jaworski study as most important and crucial element in realization of company's market behaviour model. Market information flows should proceed not only from marketing department but from every other division too. In their definition of focusing on the market and client Kohli and Jaworski lay stress on a process component. Out of all external stakeholders they extract notably company's clients and thus notions of the market and client orientations are identical [KohliandJaworski,1990].

Narver and Slater [Narver J., Slater S. 1990] give accent to three groups of market orientation characteristics such as commitment to client, competitor

orientation and cross-functional coordination. Authors see marketing concept as specific organizational culture; norms and values which place the customer in the center of the organization and which are shared in the company. An important aspect of market orientation is creation of the value to customer what has an effect on the whole chain for creation of values. Narver and Slater accentuate as the cross-functional coordination in spreading market information in the organization and also the necessity for appraising the role of every functional division in the value creation chain. Cultural aspect of marketing concept complement the behavioural one with as yet two important criteria for the decision-making i.e. long time horizon and profitability [Narver J., Slater S.1990].

For referred authors the customer focus is a function of the following characterizing factors s.a.:

1. Worded commitment to a customer.
2. The worth of an offer to the customer is higher than the average at other competitors.
3. Knowing of customer's needs and requirements.
4. Regular check of customer's satisfaction.
5. After sale maintenance and service.

In order to measure market orientation, the markor scale is a 20-item. 5-point Likert scale, with only the ends of the scale specified. Here market orientation is composed of three components as well, namely: intelligence generation, intelligence dissemination, and responsiveness.

According to Homburg and Pflesser [HomburgandPflesser, 2000] distinguishing features of organizational culture with market oriented companies are norms and values (which they share), behaviour of their employees as well as market orientation elements (for example stories, rituals and language, which all have some symbolical importance).To define components in market focused behaviour these authors used content analysis and field interviews. It should be noted that in later researches the structure and characteristics of MARKOR actually did not change. The further empiric studies conducted in the various fields only confirmed their universality [Day, 1994], [Gebhardt, G. F., Carpenter G.S., etal. 2006]. Subsequently customer orientation concept gained its traction in the interaction orientation model - INTOR [Ramani&Kumar, 2008] .

There are four elements that authors include in INTOR model:

1. Customer concept, which considers an individual customer as the starting point of any marketing action.
2. The capacity for reaction; that is offering products or services to the client with due account for experience of last consumer behaviour and interaction

experience resulting from steady feedback on previous consumer behaviour and individual requirements.

3. Consumer engagement.

4. The management focused on client's cost - spreading of marketing resources in proportion to every client's cost.

Ramani and Kumar stress the need to consider just as foundational principles of client orientation so and supporting those principles processes and practices (for example, systems for databases and processes of attracting clients and their retention) [Oyner, Latyshova 2009]. An analysis of later studies in market orientation showed that for many works notion "market orientation" and "client orientation" are synonyms. Modern development of market orientation concept is caused by the following background i.e.:

1. The change of consumer's role and behaviour. Climbing consumer differentiation is under way in present day economy. Some people, especially big city dwellers, are becoming more educated and well-to-do. Having filled the need, they start using commodities in order to meet their higher requirements such as personal fulfillment and self regard. (Vargo, Lash, 2006). The consumer becomes more active and thus gets more opportunities to interact with the producer directly or indirectly, for example, through online communities, feedback sites, by co-creation with the producer or with the help of consumer protection organizations. Transiting to higher requirements and active role of consumer demand adequate change in marketing.

2. The development of Internet and mobile telephony. Internet enables exercising global exchange of information and network based knowledge, opens access to information on Internet surfing and on-line shopping and to a lot more of other data on consumer's behaviour . For example daily Google and Yandex process tens terabyte of information, producing knowledge related to consumer behaviour on the Internet.

3. Special services such as Yandex- metrica and Google- analytic make it possible to monitor consumer behaviour and to evaluate communication effectiveness of the site; one may watch general record of traffic to the site, conversion ratio, traffic sources for site visitors. It is also possible to carry out sufficiently deep studies in consumer interaction with the site (separate pages traffic; pages with which visits start and end; URL pages parameters; files download etc.) With the use of these services it becomes feasible to conduct an analysis of bounce rate, to detect exit points from the site, to find "breaks" in the path to the target (a path of pages which the user has to go from the entrance point to the site up to the basket).

4. The elaboration of technologies for data mining and its knowledge based analysis. With CMR technologies companies have an opportunity to accumulate great datablocks on clients, their actions, shopping preferences, socio-demographic and other characteristics. Using that data one can forecast the

behaviour of clients, make decisions that allow to persuade a client to certain actions.

These days Data Mining - the decision support systems, based on search for hidden patterns (information patterns) in data on clients - get increasingly greater application. Such data allows forecasting behaviour of clients and developing marketing solution for controlling the behaviour.

Thus altered consumers, spreading of Internet and modern technologies created the background for setting – up client oriented marketing. The age of mass marketing ends, cost efficiency of certain product can be not more considered as an objective of company's work. Product effectiveness maximization is being replaced by the maximization of consumer profitability [RustR., ZeithamlV., LemonK., 2000]. Modern company is capable of providing every client with unique value up to the data on his behaviour, individual characteristics and specific requirements.

3. MODEL/ CONCEPT

Despite hasty growth in numbers of publications on this theme, still there are a lot of unanswered questions, related to theory and praxis of client oriented companies establishment. No consistent approach to the concept of client oriented approach, its meaning and software tooling backup has yet been evaluated, what is considered as principal holdback in the way to establishment of client oriented organizations.

Views on the concept of client oriented approach varied for the last years. So in manager polls and publications on the subject we run into great many stands. For example, the client oriented approach is:

- the character of the organization, its ability to act in certain manner;
- efforts to provide the consumer with fullest satisfaction of requirements;
- the method of running the business, based on principle of prevailing of client requirements;
- orientation to long term relations with client;
- establishment of particular communications with client;
- client policy format;
- development of service component as a competitive edge;
- specific culture of organization;
- client centered behaviour of employees contacting buyers exerting an impact on both their preparedness for purchasing and on client's satisfaction with its results [Khlebovich, 2012].

The analysis of nowadays representations for the concept of client orientation detected some more of its characteristics. Evidently because of the scanty of company's resources it is impossible to serve all the clients absolutely neither to provide them with maximal value. So it is necessary first of all to take note of most profitable customers trying to retain them. As noted by Philip Kotler, you should take care of your clients, but not necessarily of every of them equally [Philip Kotler, 2003]. R.Blackwell, P.Miniard and G. Angel consider orientation to consumers to be a strategic decision on concentration of all company's resources to serve and satisfy clients yielding profit [Blackwell R., Miniard P., Angel G., 2007].

From the viewpoint of Peter Fader to be a client oriented organization means studying the customer value and focusing of marketing efforts immediately on real consumer segment with high added cost in order to increase the profit taking [Peter Fader, 2012].

Therewith definitions emphasize the need to make changes in inner business processes, to create in the company a client centered structure, where all management of the work is subdued to realizing objectives of understanding, attracting and retaining of most valuable clients. Client oriented approach is an organization of work whereby client requirements form the structure of company's business processes and company's resources are consolidated for creation and supply of customer's values. A big role in client centered structure is played by the workforce. By Mann, client oriented approach is the creation of right ideology, client oriented products and business processes, as well as, most important, right staff – professional, trained, motivated and targeted at the making buyers the clients for life [Mann 2012].

Shavrovskaya implies, that client oriented approach is a characteristic of the business, the company and the employee. An inner client oriented approach is company's focusing on satisfaction of requirements of inner client i.e. company's employee. The approach, otherwise, the one of personnel is the total of knowledge, skills and know-how which thanks to proper inducement, values, orientations and employees personal qualities facilitates certain behaviour establishing and maintaining relations with clients for accomplishing of company's purposes [Shavrovskaya, 2013].

Summing up, we define the concept of the customer oriented approach as company's capability to get solid business performance through the greater, in comparison to competitors, satisfaction of profitable clients requirements and company's client centered structure.

Having conceptually decided on the characteristic of client oriented company, it is important to understand which metrics should exist in such a company. Authorial understanding of client oriented approach concept allows to suggest that most significant external indicators for client oriented approach are the following.

Clients satisfaction rate and loyalty index. Satisfaction analysis covers characteristics of the company work that are after all affecting the loyalty rate and thus the retaining of clients. As client orientation is a long term strategy it is important to understand what value client yields within the whole period of cooperation with the company.

Customer lifetime value (CLV). The company aims at rising the retention rate and the length of client's life, to make an attraction more effective and to increase client's return level.

The main asset of CLV is the shift in emphasis from client's short term profitability to an assessment of long term result. Beyond that, focusing on profitability of every particular client helps to comprehend that actual and potential customers are not equal with respect to real potential of the company to meet their requirements profitably.

To secure high satisfaction and loyalty of clients the formation of client centered structure in the company is necessary. So an important feature of customer orientation is paying attention not to outer client only, but to inner one – an employee of the company - too. The personnel is a key resource upon which client oriented company rests itself.

Evaluation of the company inner client orientation is based on indicators of employees engagement, which may be considered as inner ones. Nowadays personnel engagement is attributed to main means of achievement of loyalty among company clients.

An engagement is the whole of following indicators – satisfaction of employees (employee satisfaction with principal aspects of the work in the company); loyalty (employees positive approach toward the company) and initiative support (readiness for and ability of making substantial efforts in order to ensure best financial results at the company).

Besides the engagement, one ought also to consider as inner indicator the proposed by us complex indicator for client oriented approach in business processes, created on the basis of an integral evaluation of client oriented approach metrics used in works by Kohl and Jaworski and Narver and Slater - commitments to their clients; strive to steady creation of the value; presence of systems for requirement studies and assessment of satisfaction and for inside the organization client data exchange (feedback and reaction).

Studies in the theme of client orientation in emerging markets, including Russia, are utterly few in numbers. In Russian practice the client orientation was studied rather unevenly – the most of works were aimed at its research at the level of the organization [Semenov, 2009; Rebiazina, Smirnova 2012; Rozhkov, 2012; Kazakov, 2012] or as part of value creation chain [Yuldasheva, 2013].

The analysis of external environment specifics in developing economies allowed researchers to make suppositions of economic factors causing

the lower level of client oriented approach in emerging markets as well as to describe the special characteristics of client orientation being formed in BRIC countries.[Popov, Tretyak, 2014].

4. CONCLUSIONS

In conclusion we note that today the concept of client oriented approach needs deeper apprehension and some empiric studies in order to understand the mechanisms of interaction with clients and to identify the factors affecting their efficiency. Based on the understanding of contemporary interpretations of customer oriented process, authors came to their own understanding of customer focus that integrates the basic fundamental characteristics of the concept, which consists in the ability of the company to obtain sustainable business results through better than its competitors to meet the needs of profitable customers and customer-centric structure of the company.

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ANALYSIS OF ORGANISATIONAL ARCHITECTURE OF SMALL ORGANISATIONS - DOES IT ALLOW BUILDING STRONG LOCAL BRANDS OR PRODUCTS ONLY?

JEL classification: M31, L2

Abstract

Globalization of modern economy leads to many challenges for small local organizations, such as building and maintaining strong local brands, in a complicated environment where global competitors dominate the local markets. This scientific paper will be focused on analysis of organizational structure and architecture of local organizations and its level of development, as one of major preconditions for implementation of advanced marketing managerial concepts that would enable building strong brands, as well as maintaining the customer loyalty and brand equity in a long run. Using the methods of survey and a case study, a sample of Macedonian organizations will be analyzed, and conclusions will be presented in terms of identifying the level of development of their organizational structure and architecture. Does it enable or impede the implementation of effective long term brand strategies? What is the actual level of readiness of local organizations for implementation of advanced marketing concepts and innovation in this context? What are major adjustments that local organizations should undertake in order to build strong brands instead of products only? Furthermore, customer perspective will be presented as well, by using methods of survey and focus groups, in order to identify major determinants of customer loyalty for strong global brands vs. local products and/or brands.

Key words: local brands, organizational architecture, customer loyalty, global brands

1. INTRODUCTION

The aim of this paper is to analyze and elaborate the relationship between the type and level of development of organisational structure and architecture, and the capacity of small and medium sized organisations for implementation of advanced marketing managerial concepts that would enable building strong brands, as well as maintaining the customer loyalty and brand equity in a long run. The initial standpoint in the reserach is that there are significant differences between practical implementation of brand management in small and medium sized or large organisations, also elaborated in other studies (Berthon, Ewing, Napoli 2008, p.27). Differences in brand management practices also lead to inequalities in implementation of organisational performance management systems of SME's. The area of brand management implementation in various types and sizes of organisations is investigated by various authors (Mitchell, Hutchinson, Quinn, 2013, p. 1367), and general conclusion is that brands, and the brand management, have emerged as contemporary managerial areas of crucial importance, regardless of the type or size of organisation, across a divergent market sectors (De Cheratony, Dall'Olmo, 1999, p.158). Some authors have examined whether growing, stable, and declining small and medium-sized organisations (SMEs) differ from one another in terms of market orientation and brand orientation. Their study results show that growing SMEs have adopted market and brand orientations to a greater extent than have the stable or declining ones, and that these orientations can prove to be helpful in achieving different kinds of growth goals (Laukkanen, 2012, p. 699). Research findings suggest that market focused learning of SMEs, relative to other learning capabilities plays a key role in the relationships between industry structure, innovation and brand performance. The findings also show that market focused learning and internally focused learning influence innovation and that innovation influences a brand's performance. (Weerawardena, 2006, p.37).

While articles and books have largely focused on the strategic issues around brands and branding, much less attention has been focused on the people who manage them, and in particular, the organisational structures within which they operate (Hankinson, 1999, p.402). Organisational architecture is a platform that integrates the organisational structure with the human and capital resources, with an ultimate managerial goal to achieve desired outcomes and performance for both, the short run and the strategic long run. The ultimate objective of organisational architecture is to design an organisation that would provide maximum value to the customers and in the same time optimize the organisational performance by aligning all aspects of the organisational system.

In this context, some contemporary authors introduce more comprehensive terms, such as "firm's configuration", that refers to integration of organisational structure and architecture, emphasizing that a poor choice of configuration leads to opportunity losses which can be a threat to the organisation's short-term efficiency and effectiveness as well as its long-term viability (Burton, Obel, De Sanctis 2011, p.59).

Even though there are numerous research data on separate analysis of organisational models, or brand management principles, there is an *evident lack of integrative approach* and research studies realized that investigate the interdependence of these two variables. There is a lack of published materials focused on structuring and creating contemporary marketing organisations, especially small and medium sized organisations, and also, on designing structures, architectures or configurations for these entities that would enable implementation of effective brand strategies.

2. DESCRIPTION OF A RESEARCH METHODOLOGY

Initial hypothesis in this research is that small and medium sized organisations are in significantly unfavorable position, compared to large(r) organizations, regarding their capacities and capabilities for implementation of advanced marketing managerial concepts, specifically, brand management concept. Furthermore, the *main limitation factor* for successful implementation of effective brand management, and therefore, for achieving the ultimate contemporary managerial goal of building strong brands, is the lack of sophisticated, compatible and flexible organisational infrastructure. Determinants of size and number of employees directly influence on the organizational capability for structuring and architecture designing.

Additional *assumption* in this context is that the inappropriate organisational architecture prevents SME's managers from rational utilization of resources, cost reduction and effective managerial control, and significantly impedes any attempt for implementation of more sophisticated strategies, managerial concepts or business models. As a result, small and medium sized organisations are more likely to choose elementary strategies of survival or low cost orientation, instead of differentiation or branding strategies, due to specific requirements in terms of organisational configuration.

The customer perspective regarding the organisational capability of implementing successful branding strategies is also taken in consideration in this context. Namely, the main *hypothesis* is that the brand performance is very important factor for maintaining the customer loyalty, having in consideration that customers are more likely to become and remain loyal to strong brands with perceived premium quality and price, than to low cost oriented category products. The customer's standpoint is therefore emphasized as an extremely important factor that should be taken in consideration in processes of organisational design, in order to achieve maximum performance in a long run.

In this paper's research focus are particularly small and medium sized organisations that dominate in Macedonian economy. According to the official statistics from Macedonian National Statistics Office, 99.7% of organisations in Republic of Macedonia are categorized as small and medium sized, and only 0.3 % could be classified as large business entities, using the number of employees as

a criterion for determining the size of organisations. In the table above, it is evident that micro businesses with less than 10 employees literally dominate in the whole population of registered legal entities in Macedonia (85%), which, accordingly to above mentioned assumptions, implies that the vast majority of organisations are characterized by limited capabilities and emphasized simplicity of their organisational architectures, containing only elementary departments and/or positions of elementary importance.

Table 1

Preview of the size of registered legal entities in Republic of Macedonia, according to official statistics

	1-9 employees (micro organisations)	10-19 employees (small organisations)	20-49 employees (small organisations)	50-249 employees (medium sized organisations)	Over 250 employees (large organisations)
Percentage (total number of 71290 legal entities registered)	85%	4.2%	2.5%	1.8%	0.3%

Source: Macedonian Statistical Office, Statistical Report No: 6.1.14.13, 24.02.2014

An empirical study was conducted by the authors of this paper in 2014/15, with a purpose to analyse the structure and architecture of small and medium sized organisations, and consequently, to determine the level of their readiness for brand strategy implementation. Also, according to the research hypotheses stated before, consumer's attitudes, commitment and loyalty for specific local and global brands are investigated in the second part of the study, in order to draw conclusions about their perceptions, associations and judgments about the brands. The study was conducted by using the methods of survey and a case study analyses on a sample of 100 Macedonian organisations, 97% small and medium sized. Further, nearly 3000 respondents – individuals responded to cloud-assisted structured questionnaires related to 55 brands. Cloud technologies were used for data gathering and processing as well. As stated before, the purpose of this part of the study was to analyse the structure and architecture of small and medium sized organisations, and consequently, to determine the level of their readiness for implementation of innovative marketing strategies and brand strategies.

The study confronts two major perspectives on branding - organisational (inside-out), vs customer's (outside-in) perspective. *The assumption* is that in the processes of structuring and managing organisations, SME's managers support their managerial decision mainly by taking in consideration the inside-out organisational factors. Customers perceptions and expectations in purchasing decision making, and post-purchasing processes, on the other hand, are purely outside-in-oriented, and organisational factors or limitations are not taken in consideration by consumers in the processes of purchasing, consuming or attaining emotional attachment to the brand. Logical conclusion is SME's are mainly created to produce category products, and consumers are "programmed" to buy and love brands, not products. The question is - how to bridge this gap?

3. BRAND MANAGEMENT STRATEGY AND SMALL ORGANISATIONS ARCHITECTURE – HOW COMPATIBLE THEY ARE?

Effective brand management, a paradigm of new marketing era, demands sophisticated managerial methods and approaches that could be only applied in innovative organisational structures and architectures. Interdisciplinary understanding of functional areas of management by various levels of functional SME's managers is inevitable, as well as creating the integrative strategic platforms for all functional areas of management - marketing, finance, human resources, production/services etc. Leadership styles, models of communications, performance management systems and other elements of the architecture need to be compatible with the organisational structure. The decision of choosing the right type of organisational structure and architecture as a framework within which brands should be effectively managed, is very complex and difficult for any company, regardless its size or a type. But for a small of medium sized organisations, creation of a sophisticated architecture sounds like unachievable objective, due to serious limitation factors that these organisations are facing with. The main challenge is that, on one hand, organisations need to create appropriate organisational environment, structure and architecture, compatible and flexible enough, to stimulate creative thinking and decision making, which is an imperative in the processes of building strong brands; but on the other hand, formal and structured to the extent that enables optimum performance as well as effective managerial control.

It is obvious that optimization of numerous inside-out and outside-in variables, some often contradictory by their nature, is a very complicated task in practice. To achieve part of the objectives, traditional architecture would be more suitable, and for other objectives, contemporary informal architectures are strongly required. It is an extremely complicated managerial situation - to make decisions on structuring a modern small organisation, that would be in the same time efficient and effective, both in a short and a long run; and keep low-cost orientation, but stay dedicated to implementation of branding strategy in the same

time. Many of the objectives stated are simply impossible to achieve in the same time. In some instances, authoritarian style of management through a hierarchical organisational structure could be more appropriate, and in others, a more democratic style of management through relatively flat organisational structures could be a better solution. It is discussed in the context of brand management theory and practice and the postmodern paradigm shift regarding organisational structure. In a comprehensive empirical study which compares the organisational structures of organisations managing the world's top 100 brands with "outsider" brands, it is stated that "*traditional hierarchical* structures may be unnecessarily restrictive and prevent organisations from responding fast and effectively to shifting consumer preferences. On the other hand, *flatter structures*, which are organised around work processes rather than functions, may be in a better position to understand consumer needs and be able to develop appropriate brand propositions which "fit" the needs of target consumers" (Hankinson, 1999, p.402).

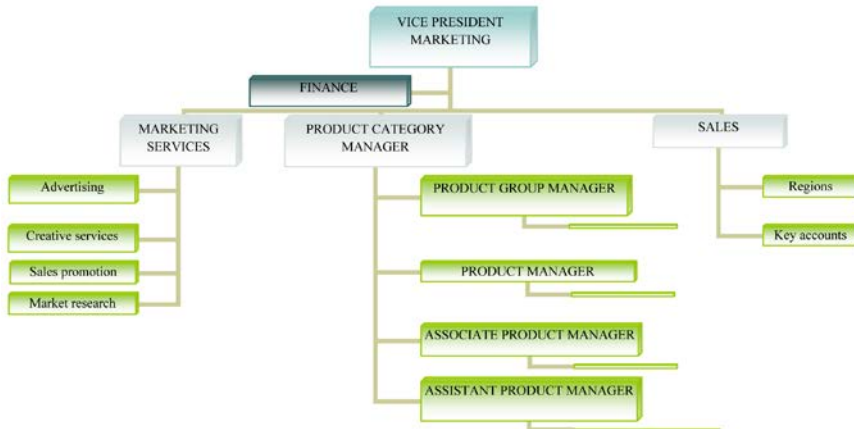
Traditional organisational models, such as product or brand management models, are often criticized by various academics and practitioners, and organisations are advised to introduce contemporary, customer focused organisational structures (Homburg, 2000, p.459). In the seminal book "Integrated Marketing Communications – pulling it together and making it work", eminent authors emphasise that there are three major barriers for implementation of IMC concept in organisations: marketing planning systems and marketing thinking, organisational structure, and organisational capabilities and control (Shultz, Tannenbaum and Lauterborn, 1993, p.162). It is also pointed out that obstacles such as planning or control systems adjustments could be performed in less complicated manner, but altering the organisational structure is a major undertaking, and it could not be done smoothly. It is emphasized that organisational structure is a major barrier for following reasons:

- Vertical organisations are the norm in US, although horizontal structures are needed;
- Functional specialists are also a major hindrance, and
- Communication is a low priority in most marketing organisations

Authors also emphasize that "it has become increasingly clear that the vertical structures, primarily in the form of brand or product management systems, are largely responsible for the failure of marketing in 1990's. Today, the consumer and the customer are focused more on a horizontal view of the marketplace".

Figure 1

Typical Brand Management Organisation



Source: Shultz, Tannenbaum and Lauterborn, "Integrated Marketing Communications – pulling it together and making it work", Page 162

Further, some vital issues arising out of inappropriate organisational structuring are pointed out, such as inconsistency of marketing planning, decision making and implementation, and it is also emphasized that "top management often holds rights of approval over marketing programs, it is the brand manager and the assistant, and associate brand manager who generally are developing the strategy and the communications programs. The same is true in other organisational structures as well. Advertising or promotion managers are generally far down in the corporate pecking order. Where once advertising agencies met with and discussed communication strategies with the CEO of the marketing organisations, today they meet primarily with group of divisional managers or functional specialists. The obvious implication of this structural location of the communications function is that top management doesn't consider it to be important." (Shultz, Tannenbaum and Lauterborn, 1993,p.162).

Having in consideration the findings of the above mentioned empirical study which compares the organisational structures of organisations managing the World's Top 100 brands with those managing outsider brands (Hankinson, 1999, p.403), in vertical organisations with emphasized hierarchy and vertical linkages and flows of communication between the organisational top and the bottom, the brand managers are usually positioned at lower levels, and submit reports to the marketing managers, that are responsible for several brands and report to the Group Marketing Manager who in turn reports to the Marketing Director. This type of structure may be characterised by a limited spheres of responsibility, a restricted information flow and strict control from the top. Other organisations are shifting towards flatter, more horizontal structures, with fewer management levels

and more brands being managed by relatively junior brand managers. Horizontal structures are flatter, and offer opportunities for improved horizontal collaboration and crossfunctional cooperation, which significantly improves the communications flow, managerial decision making and realization of activities at non-managerial levels.

4. ORGANISATIONAL ARCHITECTURE AND BRAND STRATEGY IMPLEMENTATION - A CASE OF MACEDONIAN ORGANISATIONS

The first part of the study was focused on analysis of organisational architecture and configuration of Macedonian organizations, and the research data indicate that more than 80% of organisation do not incorporate marketing departments or units in their organisational structure. Majority of organisations contain organisational unit entitled as “*unit of commerce*”, that integrates activities and staff working with procurements & sales, and sometimes even inventories. This old fashioned unit very often includes some kind of sub-unit called *marketing*, or at least, a non managerial marketing position under supervision of commercial or financial manager. Very frequent situation is employment of a marketing assistant or *referent* (a non-managerial position which exists even in cases when appropriate functional mid-level managerial position is not assigned in that structure) etc. and inserting this position mechanically in a commerce unit. Thus, the marketing referent works under supervision of a mid-level manager of commerce, that does not possess sufficient understanding of marketing activities that need to be performed, as a part of marketing strategy eventually designed. Outsourcing external experts and/or marketing agencies is an opportunity for SME’s, but it is not a sustainable solution.

So it is clear that SME’s are facing an emphasized lack of marketing expertise, which is an extremely weak architectural point in the context of their organisational readiness for implementation of branding. In this context, 40% of the organisations responded that there was no formal marketing strategy designed in their company, and over 25% of those who craft formal strategies (medium sized mainly), claim that the top management virtually “dictates” the content of the strategy – only 5% of them independently design their strategies. The lack of participatory strategy design leads to difficulties in the stage of strategy execution, but also causes difficulties on operational basis, especially in *vertical* organisations, and in this cases distortion of commands and reporting is not unusual, which additionally complicates the whole situation. Again, 25% of marketing “referents” report directly to the top management, due to inexistence of mid-level marketing manager. Concentration of several functions in one person is another issue that makes this situation even more complicated. It is a very common situation that the owner – the founder of the small company dominantly

holds the position of general manager, but very often, he/she is also performs the duties and responsibilities of finance executive or/ and marketing manager etc.

Having in consideration the traditional and conventional type of organisational structure of SME's, it must be emphasized that traditional brand management structure could be considered as an organisational innovation in Macedonian context, even though these structures are often criticized for being outdated in developed economies, as described in the theoretical part. And this is not only terminological issue. There are positions of brand managers in many organisations, but in their everyday operations, they perform activities of product managers, logistic managers etc. The name of the position is updated, but the content is still the same, since organisations are organized in traditional way, around their production processes. For example, in one of the largest breweries in Macedonia, there are several positions – brand manager for beer (!), brand manager for non-alcoholic beverages (!) etc. It is more than obvious that he/she is dealing with category products, not brands. In several interviews with managers, it was clear that the real description of brand manager's activities is actually – product manager, or – group product manager.

The second part of the study, focused on consumer's responses, was focused on gathering responses about key differences between products and brands, as perceived by consumers. The goal was to determine the major functional, and especially emotional attributes of given brands, by using the Aaker's approach, and also, to analyse the associations and perceptions that consumers have in mind for specific brands. Study results confirm the assumptions stated in the beginning of the study, that consumer's perceptions regarding the strong brands, are completely different compared to perceptions for local brands (or, outsider brands, as referred to in a study cited before). Local brands are perceived as generic products, or category products mainly, and the level of emotional attachment to them is not even close compared to global brands. Consumer's associations for global brands taken in consideration (ex. Milka, Nike, Adidas, Swatch, Nescafe etc) are in line with the brand values delivered by marketing programmes - strong, positive, emotional. Regarding the local brands, that were carefully chosen to represent high quality products produced by organisations that have good reputation, (ex. Sintagma – Vitaminka, Ellite caffe, Vitanez, Viva), perceptions and associations are linked mainly to the functional characteristics of the products – quality, affordability, durability etc. There are some exceptions, where local organisations are positioned as strong brands in the consumer's mind, like high quality wines (T'ga za jug, Bovin) or dairy products (Balans + etc), cookies (Resana), mainly due to the tradition and a positive image of the organisations - producers, and the projection of a positive image and reputation on brands – extensions.

The general conclusion is that local brands are perceived more like generic products, or category products, than brands in the real sense. Thus, willingness to pay premium prices for local products is insignificant, and also, consumer motivation in the processes of purchasing remains almost entirely

rational. On the other hand, despite the low living standard, consumers are willing to pay premium prices for strong brands, and consider that “the price corresponds to the quality offered”, due to the perceived premium quality of strong brands. The main reason is their emotional attachment to the brands and emotional pattern in purchasing decision making. The dual nature of brands is very contradictory - emotional (intangible) features of brands are crucially important in the processes of creating tangible value for organisations. Managers of organisations, especially small and medium sized are dealing mainly with managerial situations of tangible nature, and this intangible part of branding is very often underestimated by them, especially if marketing education is not their strongest point.

5. CONCLUSIONS

In a contemporary economy, based on intangible assets and knowledge, traditional concepts of organisation of organisations do not offer sustainable sources of competitive advantage. Achieving and sustaining an *emotional attachment* of a customer to the brand is one of the crucial marketing strategic objectives, because long term customer loyalty and therefore predictable future financial flows based on the premium prices that customers are willing to pay, are derived out of this sensitive brand feature. It is clear that strong brands manage to achieve and attain consumer’s loyalty, not solely due to their superior functional characteristics, but mainly due to their superior ability to achieve strong emotional attachment with the customers, to become “lovemarks” and therefore, to persuade customers that they will not be completely satisfied by consuming competitor’s substitutes, or category products. That is how strong brands literally destroy non-branded category products.

The question that arises is – how to achieve these strategic marketing objectives if organisational structure and architecture of local organisations that produce high quality products is very simple, outdated and contains only elementary units. These requirements are great challenge even for larger organisations, but for small and medium sized company with 10-50 employees, especially for micro businesses, these objectives are simply unrealistic. It is impossible to compete with strong brands, managed by organisations that apply ultra-sophisticated managerial practices, by literally being myopic and “using only short range lens”. Managers of SME’s that produce locally branded products/services need to pay enormous attention to strategic marketing activities, in order to maintain loyalty of local customers, and to build locally recognized brands, based on the same principle as strong global brands. But for that purpose, redesigning the traditional architecture of local SME’s is an imperative. Increasing the awareness of SME’s owners and managers, first of all, about the strategic nature of branding and marketing itself, and the necessity of introducing marketing innovations adopted for small and medium sized organisations is one of major steps that need to be undertaken. Partial and campaign approaches do

not lead to sustainable results in this context, and organisational architecture adjustment is one of major steps that need to be undertaken by majority of SME's, in order to better respond to the challenges of "branded economy" of 21st century.

It is not difficult to understand why organisations pay such a great attention to the functional features of their products mainly, but, the question is – why emotional features of the products are steel underestimated, and how to manage it in order to start building brands in such primitive organisational architectures? Until this question remains open, organisations will produce and sell products only, not brands!

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THE INFORMATION ACTIVITY OF THE BIOACTIVE FOOD CONSUMERS

JEL classification: M31

Abstract

The main objective of this paper is to analyse communication activity of consumers and potential consumers of bio-active food in comparison to non-consumers of such food. The above-mentioned analysis is based on quantitative research, which was carried out within the project New Bioactive Food with Designed Functional Properties POIG 01.01.02-00-061/09. 500 structured interviews with people responsible for food purchases in households, were conducted between March and April 2015 in towns of Wielkopolskie voivodeship. The quota sampling was used with age, gender and size of the respondent's city of living as quotas. The sources of information used by bioactive food consumers were presented, as well as the way that they share information with others. Moreover, the similarities and differences in information activity, between people interested in pro-health food and those uninterested, were indicated.

Key words: consumers' information activity, bioactive food

1. INTRODUCTION

The bioactive food (functional, pro-health) is food with a proved positive effect on vital functions of an organism. Apart from supplying nutrients, functional food contributes to an improvement in health and well-being and/or to lower incidence of lifestyle diseases, etc. (Gawęcki and Mossor-Pietraszewska, 2006, p. 19). The bioactive food market displays a high level of information asymmetry between consumers on one side and the representatives of the supply, particularly producers, on the other. The asymmetry on a market appears when the scope of information shown by transaction participants varies; one of the parties has more/ more valuable

information (Akerlof 1970; Polański, Pietrzak and Woźniak, 2008). This asymmetry is not only related to the knowledge about the product itself, its contents, or its action, but also to the influence of various pieces of information and the way they are communicated on their perception and reliability in the eyes of consumers.

In order to reduce this asymmetry of information, both sides: the one better informed and the one with less information, can make the effort of obtaining information and also disclosing it to the other side. Such effort is referred to as an information activity. It should be understood as gathering, transmitting and exchanging information by and between market participants and as actions taken to extend one's own knowledge or the knowledge of other subjects (Forlicz, 2001, p. 52). Classification and examples of information activity were analysed among others by Kaas (1991). It should be emphasised that Kaas' classification does not present information activity in an exhaustive manner, for it takes account of only two categories of subjects – offerors and purchasers – while the latter may also obtain information from institutions and non-governmental organisations safeguarding consumer rights, as well as from education programmes and materials. More on this topic writes Nestorowicz (2013).

In the further analysis we are going to focus on the consumers' activity. The consumers' information activity, aimed at minimizing the asymmetry of information characteristic of the bioactive food market, can be manifested in the following ways:

- seeking and obtaining information,
- sharing it with other consumers,
- the passive reception of information given by the producer, or by an independent entity from the market environment.

A consumer can use the following sources of information:

- a producer and a distributor (the supply side),
- other consumers,
- independent entities from the market environment

Examples of activities undertaken by consumers, depending on the form of activity, the sources, or the recipients of information are presented in table 1.

Table 1

Examples of consumers' activities aimed at the reduction of the information asymmetry

Forms of information activities	Sources of information		
	Providers (producers, distributors)	Consumers	Other entities from the market environment (media, non-government institutions, science institutes, experts – doctors, dieticians)
Seeking information	<ul style="list-style-type: none"> - reading information on leaflets - reading information on packaging - reading sponsored articles - asking questions on producers' websites - using a producer's helpline - asking a salesperson about the properties of the offered products 	<ul style="list-style-type: none"> - asking other consumers about their opinions (family, friends, strangers) - reading other consumers' opinions on internet forums 	<ul style="list-style-type: none"> - visiting dietitians - asking a doctor about nutrition - systematically watching programs about healthy food and rational shopping, - reading articles about healthy food and rational shopping - seeking information on the Internet (e.g. in blogs)
Passive reception of information	<ul style="list-style-type: none"> - involuntary reception of information from advertisements 	<ul style="list-style-type: none"> - involuntarily hearing other people's conversation (e.g. in a line, or on a train) - observation of other people's behavior 	<ul style="list-style-type: none"> - accidental watching TV programs, or listening to radio programs („by chance”)
Forms of information activities	Recipients of information		
	Provider (producer of distributor)	Other consumers	Other entities from the market environment
Sharing information	<ul style="list-style-type: none"> - making complaints - placing information on a producer's forum/website - information given through the helpline 	<ul style="list-style-type: none"> - conversations about food products - posts on internet forums 	<ul style="list-style-type: none"> - information given to the media - providing feedback to dietitians and doctors - complaints filed to organizations such as the Office of Competition and Consumer Protection, or consumer ombudsmen - participation in surveys

Source: own elaboration.

The active information seeking is characterized by the central track of information processing, whereas the passive one – by the peripheral one (Doliński, 2005, pp. 97-98). Not all consumers are equally active in seeking and

sharing information. The differentiating factors of this type of behavior are diversified. This article focuses on the similarities and the differences between the information activity of the people who declare their interest in buying bioactive products and those who claim that they will not buy such products.

2. THE METHODOLOGY OF RESEARCH

With a view to indicating the similarities and the differences in the information activity displayed by consumers and non-consumers of bioactive food, quantitative research was conducted in cities of the Wielkopolskie voivodeship. 481 structured direct interview were held with people responsible for shopping for food in their households. This research was carried out within the project “New Bioactive Food with Designed Functional Properties” POIG 01.01.02-00-061/09.

The sample selection was based on the quota sampling, with the following selection criteria: gender, age and the size of the place of living. In terms of the age and the place of living the sample structure corresponded to structure of the general population. As for the gender, women accounted for 71% of the sample and men – for 29%. It was in line with the research results which show that 70% of the people responsible for food shopping in Poland are women (Baranowska-Skimina, 2013). The age span of respondents was 18-83.

To make sure that all the respondents will understand the concept of bioactive food in the same way, at the beginning of the research they were given the following information about the pro-health food: „The bioactive (pro-health) food is the type of food which not only provides the organism with the necessary nutrients, but also helps prevent and cure illnesses. In the project entitled “The new bioactive food with programmed pro-health characteristics” scientists from universities and science institutes from Poznań created food products enriched with the extracts from e.g. collard, chokeberry, mulberry, yellow tea, or beetroots, which can support the treatment of such diseases as: obesity, diabetes, hypertension, or inflammatory bowel disease. These are not dietary supplements, but wholesome food products”.

In order to define the information activity of the respondents, the five-point Likert scale was used. The statements which were supposed to indicate the differences between consumers and non-consumers of bioactive food were as follows:

- Seeking additional information about food is a waste of time
- I usually pay attention to advertisements of food products
- If there is an article about food in the press I normally buy, I gladly read it

- If, while watching TV, I come across a program about healthy eating, or rational shopping for food, I switch to another channel
- While surfing the Internet, I pay attention to articles, or websites devoted to healthy eating
- While shopping, I spend a lot of time reading information about the foods
- If I come across some brochures about healthy food, I gladly read them
- I like to share information about food products:
 - with family
 - with friends, acquaintances
 - with strangers, e.g. on Internet forums
 - in consumer opinion surveys (questionnaire, interviews)
- In conversations about food with family and friends I am the one who does the most of speaking
- Family and friends often ask me what I think about:
 - food products
 - reliability of information about food

In the applied 5-point scale 5 meant: I definitely agree and 1: I definitely disagree.

3. THE INTEREST IN THE BIOACTIVE FOOD

The respondents displayed high interest in the pro-health food, mentioned at the beginning of the research. On the average, $\frac{3}{4}$ of respondents replied that they would (definitely or rather) buy this type of food. 1 out of 10 participants had an opposite opinion (figure 1). Among those who favored this type of food was the highest proportion of people suffering from at least one of the following illnesses: hypertension, diabetes, iron absorption deficiency, anemia, inflammatory bowel disease. Among the ill people almost 37% were ready to buy such food, whereas in the remaining groups the proportion was 21.5-24%.

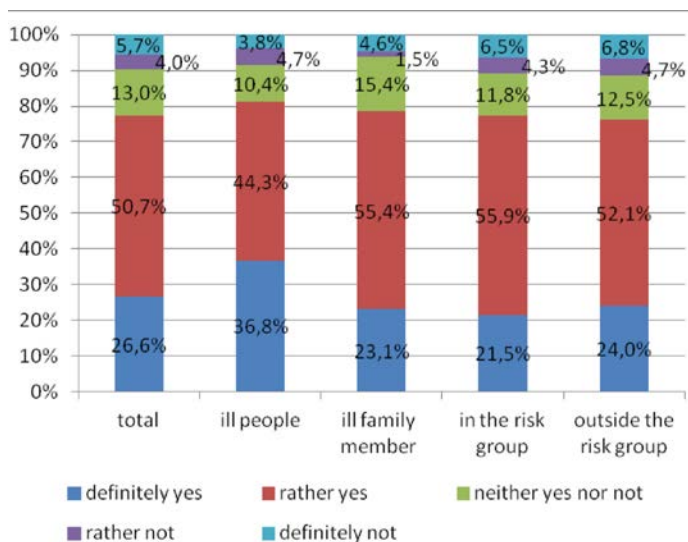


Figure 1. The willingness to buy pro-health (bioactive) food

Source: own elaboration based on a survey

The comparative analysis was conducted of the differences in the responses given by the supporters of the pro-health food (respondents who replied that they would definitely buy this type of food) and those given by the opponents (people who responded they rather or definitely wouldn't buy such food). In total, 175 people were selected for the analysis.

The group of supporters of the bioactive food was dominated by rather older people. The average age in this group was 49, whereas in the group of its opponents – slightly over 44. These groups did not differ in the number of people in the family, or the number of children in the household.

Women were much more interested in the bioactive food – $\frac{3}{4}$ of female respondents would definitely buy the pro-health food, whereas among men the percentage of those who favored such food was smaller – $\frac{2}{3}$. People with the university or secondary education far more frequently declared their interest in this type of food than those with the elementary and vocational education. Respectively: 71% of respondents with the university education, 79% with the secondary education, 59% with vocational and 67% with the elementary education belonged to the group of supporters of the pro-health food. People defining their material situation as good were the most interested in the bioactive food (76% of them), whereas among those assessing their own situation as bad, only 50% favored this type of food.

4. INFORMATION ACTIVITY OF THE SUPPORTERS AND THE OPPONENTS OF THE BIOACTIVE FOOD – SIMILARITIES AND DIFFERENCES

As it was expected, the supporters of the bioactive food were more active in the field of information than those who declare their lack of interest in this type of food. However, this more intensive activity did not concern all the aspects raised in the survey. Although the supporters of the pro-health food were more active in the area of seeking and obtaining information, as for sharing information with other consumers or producers, their level of activeness was similar to that observed in the group of the opponents of the pro-health food (Tables 2 and 3).

Table 2

The information activity of consumers and non-consumers of the pro-health food in the area of obtaining information (average)

Item	consumers	non-consumers
Seeking additional information about food is a waste of time	2,09	2,85
I usually pay attention to advertisements of food products	2,87	2,65
If there is an article about food in the press I normally buy, I gladly read it	3,71	3,00
If, while watching TV, I come across a program about healthy eating, or rational shopping for food, I switch to another channel	2,15	2,52
While surfing the Internet, I pay attention to articles, or websites devoted to healthy eating	3,41	2,78
While shopping, I spend a lot of time reading information about the foods	3,54	2,83
If I come across some brochures about healthy food, I gladly read them	3,69	2,83

1 – I definitely disagree, 5 – I definitely agree.

Source: own elaboration based on a survey

The respondents were also asked if they like to share information about food products with their family, friends / acquaintances, strangers, as well as in consumers surveys. In this area there were no significant differences between the consumers and the non-consumers of the bioactive food (table 3).

Table 3

The information activity of consumers and non-consumers of the pro-health food in the area of sharing information

Item	consumers	non-consumers
I like to share information about food products with family	3,44	3,52
I like to share information about food products with friends, acquaintances	3,52	3,50
I like to share information about food products with strangers, e.g. on Internet forums	3,58	3,32
I like to share information about food products in consumer opinion surveys (questionnaire, interviews)	2,64	2,61
In conversations about food with family and friends I am the one who does the most of speaking	4,29	4,02
Family and friends often ask me what I think about food products	4,52	4,30
Family and friends often ask me what I think about reliability of information about food	4,56	4,41

1 – I definitely disagree, 5 – I definitely agree.

Source: own elaboration based on a survey

The lack of statistically significant differences in this category was also related to the question whether or not the respondents were perceived by their family and friends as a source of information about food. People who declared their interest in buying the pro-health food were only slightly more frequently asked about their opinions about food products and the reliability of information concerning food than the respondents who were not interested in the bioactive food (table 3).

Therefore, it seems justified to conclude that the information activity of the supporters of the pro-health food does not result from their general willingness to exchange information, but it rather results from their rational approach to the selection of food products and their need for the knowledge which will enable them to make rational consumer decisions and to eat healthy food. This thesis is confirmed by the respondents' declarations concerning the kind of information they seek:

- needed for making purchase decisions concerning food products
- about healthy eating
- about the health benefits of the food they buy

The supporters of the pro-health food agreed with the above statements to a definitely larger extent than the respondents not interested in such food (figure 2).

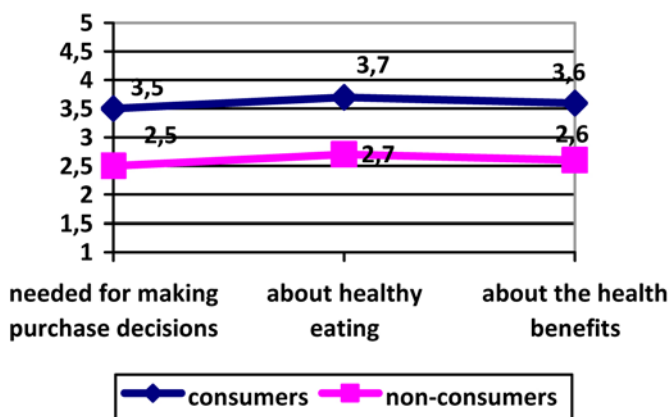


Figure 2. Information seeking by the consumers and the non-consumers of the pro-health food.

The question: Please express your attitude to the statement: I often seek information... in the scale from 5 I definitely agree to 1 – I definitely disagree.

Source: own elaboration based on a survey

5. CONCLUSIONS

In conclusion, it can be stated that the people who are interested in the pro-health food reveal more information activity in the area of seeking, obtaining and using the available information about food, or healthy eating, in comparison to the consumers not interested in this type of food. However, in the sphere of sharing the information with other consumers or market entities the differences between these two groups are insignificant. Bioactive food consumers through their activities minimize the information asymmetry between themselves and food producers. They do not affect the level of asymmetry between producers and other consumers who are not interested in bioactive food.

The increased activity in the area of seeking information and making use of the available messages is beneficial for bioactive food producers, because their potential customers are open to this kind of communication and interested in obtaining information about this type of food and healthy eating. Bioactive food manufacturers should meet the expectations of customers and provide them reliable information about the impact of their products on the consumers health. Customers interested in bioactive food are looking information on the food packaging, so the package is a great place to put information not only about ingredients, nutritional value, but also about the impact on human health. Placing such information is limited by law. Only products that were authorised by the EFSA, may have health claims on the packaging. It is the protection of consumers

against unfair manufacturers. In view of the research results, we can say that sponsored articles in the press and on the Internet and brochures are good ways of communicating healthy effects of food products.

From the social point of view, the limited interest in sharing information about healthy food and healthy eating with other consumers of the pro-health food is a disadvantageous phenomenon. People interested in the pro-health food are innovators, increasingly aware of the impact of food on human health. These consumers could become a kind of ambassadors of the pro-health food and a reliable source of information for other consumers, if only they intensified their activity in sharing their knowledge and experience related to this type of products. The most reliable source of information are other consumers. It was confirmed by the research conducted within the project: "New Bioactive Food with Designed Functional Properties" POIG 01.01.02-00-061/09, in which family and friends were assessed as the most reliable source of information about food.

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THE ROLE AND IMPORTANCE OF MOBILE MARKETING IN THE SYSTEM OF MARKETING MANAGEMENT

JEL classification: M31, M37

Abstract

Mobile marketing is a relatively new branch of marketing, referring to the two-way marketing communication between company and customers that takes place via mobile devices. The effectiveness of marketing campaigns has been greatly increased when mobile devices have been used in conjunction with traditional media and in that case potential customers show more intention to purchase. Implementation of mobile marketing strategy in marketing management is a complex and demanding process. To make the implementation possible, companies should first examine the socio-cultural and technological factors which dominate on the market. Mobile marketing has a great impact on all elements of the marketing mix and allows companies to develop products with the shape and characteristics which are desirable with existing and potential clients. Besides, mobile marketing offers complete control over pricing and distribution and provides great promotional activities through mobile devices such as advertising, sales promotion and direct marketing. It has been a significant role and importance of mobile marketing in the system of marketing management where stands out the importance of multi-platform advertising (tv+iPhone+iPad).

Key words: mobile marketing, mobile devices, advertising

1. INTRODUCTION

With an excellent product, attractive price, successfully implemented promotion and distribution, it is very important to know how to approach the product or service to the customer because of the new market trends.

In the recent past companies were using massive marketing – communication with a large number of potential customers at once via traditional media as TV, radio, newspapers, journals etc. By development of information technologies and the fact that massive market has become fragmented, marketing experts had to change their access to the existing and potential clients. Development of information technology has enabled direct communication with the clients, while companies can find out useful information that can be used for creation different kind of products for each customer. Also, new kind of directed/target marketing has been continuously developing.

New information technologies created new media – mobile devices, by which can be applied mobile marketing. In his paper Joshi (2013) identifies mobile devices as an important innovation whose impact on the company probably will not stop soon. To emphasize their importance and crucial role in business, Joshi (2013) calls mobile devices “strategic innovation”. Because mobile devices are always close to their owners they create emotional impact.

The purpose of this paper is to point out the importance of the implementation of mobile marketing in the system of marketing management. The objectives of this paper are: highlight the role and importance of mobile marketing in the system of marketing management and the importance of multi-platform advertising (TV + iPhone + iPod).

2. MOBILE MARKETING AND ITS PARTICULARITIES

Dushinski (2009) in his paper defines mobile marketing as a revolutionary tool for connecting companies with each of their clients via their mobile devices in the right time, on a right place and with appropriate direct message.

Becker i Arnold (2010) emphasize definition of mobile marketing which have been given from Mobile Marketing Association¹, which says that mobile marketing is a set of procedures that enables communication with companies target audience on interactive and relevant way via mobile devices.

Also, mobile marketing is a new marketing channel which has been created during the evolution of e-commerce. Although it is possible to reach out target groups via mobile devices, Tanakinjal et al. (2011) state that it’s important to make an effort and explore the possibilities to make it work.

¹ Mobile Marketing Association (MMA) is a world leading association of mobile marketing. (<http://www.mmaglobal.com/>).

According to Andrews et al. (2012), mobile marketing is any form of marketing communication that has been using mobile devices during the creation of potential opportunities and benefits for customers, what includes location based mobile services and services for the delivery of mobile content.

Marketing experts agree with the fact that activities that have been going on with the mobile devices, in the last decade, had a huge impact on a development of mobile marketing and on intent for purchase of potential customers in the future (Chinomona i Sandada, 2013).

As many people equate the term of marketing with promotion, it also happens with the term of mobile marketing and mobile promotion, what is surely wrong. Tanakinjal et al. (2011) explain the difference between these two terms. Mobile marketing is a driver and a foundation for the exchange of content and direct response, while mobile advertising is form of a message which has been sent via mobile device.

Mobile marketing is a form of communication with existing and potential clients. Basis of this communication has been development of telecommunication, information and wireless technologies. Mobile marketing does not lose the sense of marketing but reflects the creativity of marketing professionals and their strategy while result should be qualitative and successful marketing communication between the company and customers. Hence, mobile promotion is a part of mobile marketing and is one of its most important activities.

Mobile devices are owned by one person what enables communication with a specific person and message that has been sent to them is immediately available Hazlett (2011). Accordingly, interaction with the clients can be totally different for each client, what is not the case in other kinds of marketing (Dushinski, 2009).

Because of the opportunities provided by mobile marketing, companies can easily include in the exchange of information with existing and potential customers, with the aim of improving products (Persuad i Azhar, 2012). Companies are increasingly opting for mobile marketing because of the trend and its optimistic projections (Smith, 2013).

3. DEVICES OF MOBILE MARKETING AND THEIR CONNECTION TO THE MOBILE INTERNET

On figure 1 we can see the most important media in certain decades, beginning with 1950s until now (Pasqua and Elkin, 2013).



Figure 1 Mainstream media through the decades

Source: Pasqua & Elkin, 2013.

After 2000, main media had become smart phones. Ten year after, from 2010., featured product is tablet device. Smartphone and tablet devices share many common characteristics. Mobile devices and the Internet are the basis for operation of mobile marketing. To make mobile marketing campaigns successful, marketing experts should have to know how to use built-in capabilities of mobile devices.

3.1 Mobile devices

It is important to clarify what kind of devices includes the term „mobile devices“, because it is often thought to be exclusively mobile phones. Term of mobile devices includes different kind of mobile phones, smartphone devices, personal data assistant devices, tablet PC and even play station portable because user can connect through it by Wi-Fi technology and surf the Internet, either at home or outside (Dushinski, 2009).

Mobile phones are not just phones whose main purpose is not just making calls. They have embedded some special functions like reading the newspapers, display of geographic maps, camera, radio, e-store, TV function etc. (Arnold and Becker, 2010).

Although there are different divisions of mobile devices by category, there has been generally accepted the division in three categories: feature phone, smartphone and connected devices (Pasqua and Elkin, 2013).

Feature phones are older mobile devices which are less sophisticated. Lately, in this kind of mobile phones have been installed some advanced options which are still far from those which have smart phones (Rashedul et al., 2010; Pasqua and Elkin, 2013).

According to Becker and Arnold (2010), smartphone is a mobile device which integrates possibilities of mobile cellphone with the main possibilities of personal computer what includes Internet, applications, e-mail, entertainment and media services. Also, Barbour (2011) points out that smartphones are becoming thinner, faster, with much more functions that make them similar like laptops.

Analysts of Gartner² figure out that total sale of smartphones in 2013. amounted to a record 81 billion units, an increase of 3.4% compared to the previous year 2012.

Connected devices are all mobile devices that do not have the ability to call, but have all other features of mobile devices. These characteristics correspond to tablet devices, e-readers and portable entertainment devices. These devices share many things with smartphones, but their primary purpose is not phoning but browsing the internet, entertainment and reading e-books (Becker and Arnold, 2011).

3.2. Access to mobile Internet

What is particularly significant with regard to the functioning of mobile devices is to achieve connectivity with other mobile devices in order to achieve basic communication, which is the basis for the realization of marketing communications. This applies in particular to the network connection and data transfer speed in the network.

By development of wireless technology, mobile phones became part of our everyday life on private and business plan (Liao et al., 2007).

Mobile devices can connect the Internet via network of mobile operator or Wi-Fi network – user can choose, depends on a situation how to become connected to the Internet.

Feature phones and smartphones primarily connect the Internet via network of mobile operator which have been using while transfer rate and characteristics of connection depends on the standard used in the network and which device supports. Connected devices connect the Internet primarily via Wi-fi network, but there are also exceptions – like advanced tablets which can have functions of mobile phones and can use networks of mobile operators (Pasqua and Elkin, 2013).

3.3 Statistical indicators of using mobile Internet in Europe

A study conducted by Mobile Marketing Association and Vserv.mobi³ in 2013. included 3.000 users of mobile internet in France, Italy, Russia, Spain and United Kingdom. The aim of a research was to get more information about the users of mobile Internet in the observed countries to help marketers in their future mobile campaigns.

² Gartner, Inc. (NYSE: IT) is the world's leading research and advisory firm in the field of information technology (www.gartner.com).

³ Vserv.mobi is a company whose primary activity is the development of solutions for mobile platforms (<http://www.vserv.mobi>).

According to the research, 13% of the mobile internet users have less than 18 years, 21% have from 18 to 24 years, 29% have from 25 to 35 years and 37% of them have more than 35 years. Thus, more than a half of mobile Internet users are young people (Figure 2).

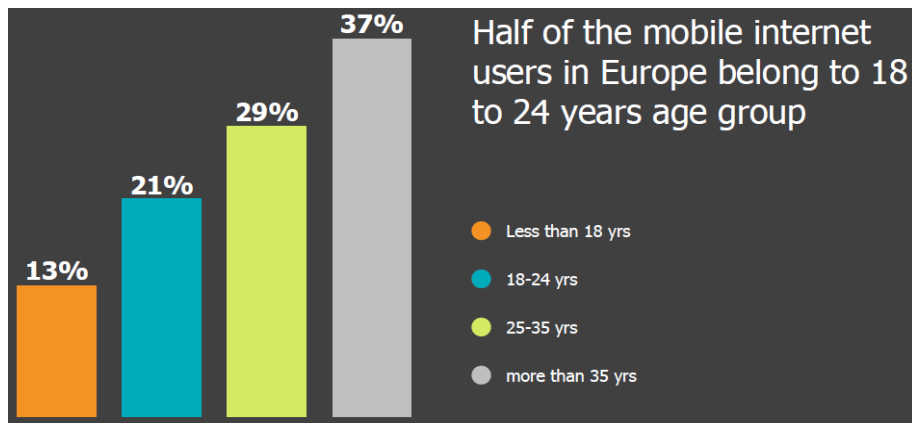


Figure 2 Mobile Internet users by age

Source: Mobile Marketing Association & Vserv.mobi, 2013.

Also, men are using mobile Internet more than women - 6 out of 10 mobile internet users in Europe are men (Figure 3).

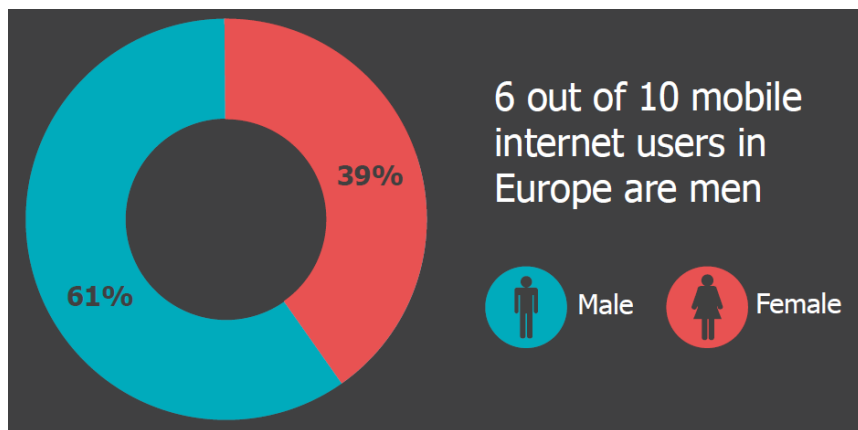


Figure 3 Mobile Internet users by gender

Source: Mobile Marketing Association & Vserv.mobi, 2013.

Figure 4 shows the structure of the users according to the level of education.

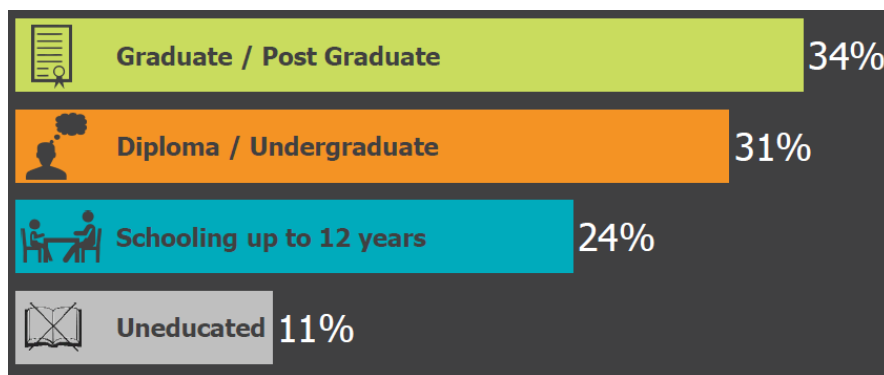


Figure 4 Mobile users level of education

Source: *Mobile Marketing Association & Vserv.mobi, 2013.*

34% of the mobile internet users are graduates or post graduates, 31% belongs to group “diploma / undergraduate”, 24% belongs to group “schooling up to 12 years” and 11% are uneducated. Therefore, more educated persons use more mobile internet opposed to less educated persons.

4. THE COMBINED USE OF TRADITIONAL MEDIA AND MOBILE DEVICES

On a daily basis, consumers can spend more time sitting in front of TV, but smartphones still more occupy their attention. In fact, most of them are using smartphone and tablet devices while they are looking the TV (Pasqua and Elkin, 2013).

Companies Nielsen⁴ and AdColony⁵ conducted the research of the impact of traditional media and mobile devices on consumers during the video advertising.

So called "Cross-Platform Video Ad Effectiveness Study" showed that viewing to the more screens – watching TV and using mobile devices, may cause the intention of buying brand which has been promoted in 72% of the cases more than advertising just on TV.

The sample on which the survey was conducted consisted of 400 respondents. Adaptation to mobile devices and their frequent use resulted in the fact that consumers are watching multiple screens at once. Also, consumers mostly do multiple tasks at once while they are watching TV – 80% of them are

⁴ Nielsen is a leading global company that has been specialized in market research. (<http://www.nielsen.com/us/en.html>)

⁵ AdColony is a company whose main activity is production of mobile video ads (<http://adcolony.com/>)

at the same time surfing the Internet via mobile devices. Generally, multiplatform advertising surpasses other forms of advertising and it leaves much greater effect on any measured area of brand promotion.

	Brand Recall (unaided)	Brand Recall	Likelihood to Search	Likelihood to Recommend	Purchase Intent
TV-only	6%	55%	4%	10%	18%
TV + iPhone + iPad	43%	93%	22%	26%	31%
Incremental Lift	+617%	+69%	+450%	+160%	+72%

Figure 5 Results of the research

Source: Mobile Marketing Association & Vserv.mobi, 2013.

Multiplatform advertising in a combination TV + iPhone + iPad is 72% more effective than just advertising on TV. Results have been presented on figure 5.

There are several conclusions from the research of AdColony and Nielsen from 2012:

1. Mobile campaigns are complemented to TV campaigns.
2. Multiplatform video campaigns achieve better results when it comes to remembering the brand.
3. Mobile video ads exposure allows users to immediately engage and learn more about brand/product.
4. Consumers have a greater intent to purchase products when they watch video advertising on a more platforms.

5. MOBILE MARKETING IN A SYSTEM OF MARKETING MANAGEMENT

According to Kotler et al. (2006) two main factors have been changing marketing communications:

- 1) Moving away from mass marketing and developing focused marketing programs which have been designed to build stronger relationships with consumers on a specific market.

- 2) Segmented marketing has been increasingly used because of the development in information technology.

Further, information technology helps marketers to understand better the needs of consumers. New technologies offer new possibilities for communication with the help of which one can get to the smaller segments of consumers with more personalized messages (Kotler et al., 2006).

Shankar and Balasubramanian (2009) state that existing and potential clients by sending the messages via mobile devices can greatly participate in forming the product. Thanks to location based services, Smutkupt et al. (2010) point out how marketing experts can easily determine the supply of products and services in the specific area with the aim of increasing sales. Also, to the each customer may be offered unique price without others knowing that. That allows sellers price discrimination of the first degree, which refers to the fact that to every customer can be offered a customized price (Smutkupt et al., 2010).

Mobile technologies help companies to increase the efficiency of product distribution. Also, customer can monitor the progress of the delivery of his product via mobile device (Smutkupt et al., 2010).

Tools of mobile advertising are: mobile web pages, e-mail, mobile applications, QR codes, SMS and MMS, location based marketing and near field communication (Podmanicky and Turkalj (2011); Becker and Arnold (2010), Stuart et al. (2013)). Their proper application requires some effort, investment and proper strategy. To form a proper strategy, marketing experts should be provided with all information about the market – data on the prevalence of mobile devices on some certain market, the type of mobile devices that are used and the possibilities offered by mobile operators.

There are two most common strategies of mobile marketing that are called "push" and "pull". Push strategy is an active way of advertising which aims to reach out to a large number of customers at once and is successful if clients want to receive new information. On the other hand, users can receive new information on their request. Then, information content has primarily value for the user, and that kind of strategy is called pull strategy (Alibabić, 2012).

6. CONCLUDING REMARKS

Mobile marketing is a relatively new concept in the marketing discipline. Although sometimes referred to as one of the marketing channels, mobile marketing is much more of that. It is a separate unit of marketing which tries by planning and development of effective marketing campaigns reach the potential clients on interesting and interactive approach via mobile devices and Internet connection.

The emergence of mobile marketing does not substantially change the system of marketing management but gives marketing experts new efficient tool by which they can easily reach a huge number of new clients. Thus, marketing experts have to adjust strategies to new technologies and media while marketing essence remains unchanged.

During the implementation of each mobile marketing campaign, mobile marketing tools should be used together or in a combination what means that it is necessary to make a good strategy. The maximum efficiency of mobile marketing is evident when it has been used in a combination with traditional media where stands out the importance of multi-platform advertising.

The paper did not present the negative aspects of mobile marketing what is the limit of a paper.

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PRODUCT PLACEMENT

JEL classification: M39

Abstract

Despite the risk of losing current and potential customers due to socially irresponsible behavior, a lot of companies decide to improve their marketing mix with product placement. Besides the danger of losing customers, this form of advertising brings along the danger of penalty, usually followed by big fines. Nevertheless, the reason for such a dangerous behavior of the producer i.e. advertiser can be found in high returns of investment in product placement in case when customers are not even aware of the presence of advertisement, and a very low probability of punishment. On the other hand, this form of advertising harms the customers who receive rather distorted information from the media that are expected to provide truthful information. The purpose of this paper is to define the concept of product placement and its types, i.e. the differences between different types of media in which product placement is used, and also to determine customer awareness of product placements they come across on a daily basis and to what extent they are threatened by them. The results of the conducted research show the customer's inability to perceive a product placement. Despite the aforementioned facts, 58% of respondents believe they are not threatened by this type of advertising. When it comes to the legislation, the results point out that only 9% of respondents think that prevention of the above

mentioned form of advertising in the Republic of Croatia is well organized, and insufficient public awareness is identified as the main cause that leads to the absence of their reaction. This contradicts the hypothesis stating that the difficulty of proving guilt is the main cause for it. From the above, it can be concluded that product placement is extremely neglected and, moreover, it is also an omnipresent punishable offense which affects the judgment of many, especially when it implies advertising in the news media. Many causes can be found for this particular problem, one of them being the public's lack of knowledge and their carelessness regarding the issues involved.

Key words: *product placement, truth in journalism, legislation*

1. INTRODUCTION

This paper will examine the phenomenon of product placement in the news and entertainment media and the legislation governing this issue.

The objective of this paper is to define the concept of product placement, provide an overview of the regulations affecting such form of advertising, compare customer awareness of the presence of product placement with the actual state, and find out the opinion of respondents on the dangers brought by such form of advertising and the related legislation in the Republic of Croatia.

The aim of the research is to investigate the influence of product placement on media users, emphasize the importance of truth in journalism, and point out some of the negative consequences that can occur due to this specific form of advertising.

The following section presents the hypotheses of the said research. It is assumed that respondents, before answering the survey questions, would not be familiar with the meaning of the concept of product placement and that because of that, they would have difficulties in responding to the questions posed in the survey. The next assumption is that respondents, i.e. most of them, would believe that there are no product placements in newspapers that are considered to be trustworthy, such as *Jutarnji list* and *Večernji list*, and that the majority of respondents would think that most product placements are present in *24 sata*. When it comes to newspaper supplements, it is assumed that respondents would believe that the largest share of product placements is present in the sections dedicated to entertainment and fashion, whereas they would not expect such form of advertising to be present in „serious“ sections such as supplements dedicated to economy and politics. Furthermore, it is assumed that respondents would think they are threatened by product placement because, due to the difficulty of its recognition, it makes objective reasoning impossible for them. It is, moreover, assumed that respondents would think that the greatest danger of product placement lies in the content intended for children. When it

comes to the issue of legislation governing such form of advertising in the Republic of Croatia, it is assumed that respondents would not be satisfied with the current legislation and would not be familiar with the cases of punishment of product placement in the Republic of Croatia. The last assumption relates to the causes of poor legislation and it is assumed that respondents would think that the cause of poor law enforcement lies in the impossibility or difficulty of proving the guilt of advertisers.

The paper is divided in three subtopics. The first subtopic deals with the methods used for conducting the research. The second subtopic provides an explanation of the very concept of product placement, outlines the legislative provisions relating to product placement in Croatia, points out the differences between European countries, and presents the issues related to lack of truth in journalism. The last, i.e. the third, subtopic provides an overview of the research conducted.

1.1. Research Model

For the purposes of this paper, a survey was carried out among 107 respondents. The said survey was conducted in the first half of 2013. Respondents that participated in the research were of age at the time of conducting the survey and exposed to information provided by mass media on a daily basis. The survey questions were designed based on two researches on the frequency of product placement in daily newspapers and magazines with the largest readership in the Republic of Croatia. The purpose of the survey is to examine readers' awareness of the frequency of occurrence of product placement and its being ethical or not, as well as their attitude towards the correctness of enforcement of the legislation, and to provide a link between respondents' opinions on such phenomenon and the results of the research on the frequency of occurrence of the said phenomenon. As it was previously mentioned, within the scope of the preparation of this paper, two scientific researches on the frequency of product placement in the content of the news media in the Republic of Croatia were taken into consideration; namely Haramija's research from 2011 on the topic of product placement in the Republic of Croatia – the phenomenon and its ethical implications (*Prikriveno oglašavanje u Republici Hrvatskoj – fenomen i etičke implikacije*) and the research of Jurišić et al. from 2007 on the topic of manipulation of readers – product placement in Croatian newspapers (*Manipulacija čitateljima – prikriveno oglašavanje u hrvatskim novinama*).

2. Product Placement

The simplest definition of product placement is provided by Homer (2009)¹ who stated that product placement is the practice in which firms pay to

¹ the practice in which firms pay to place branded products (e.g., brand name/logo, package, signage, other trademarks) in the content of mass media programming

place products (e.g. logo or other brand elements) in the content of mass media programming. An extension of the concept above is provided by Guido² (2010) who stated that product placement refers to the planned and paid insertion of a product within a film or any other media that is capable of influencing the attitudes and the beliefs of the audience toward that specific product.

2.1. Overview of the Available Literature

The text below provides a brief overview of recent papers from the available literature on the topic of product placement. In their paper from 2012, Balakrishnan et al. examined the impact of product placement in movies³ and stated that the aim of the research was to explain the relationship between the acceptance of brand placement based on consumers' perception and brand recall towards brand preference, loyalty and intention to purchase the specific brand⁴. The research was carried out on young movie viewers and the authors came to the conclusion that brand placement has become an exceptionally important marketing tool to reach emerging younger generation consumers⁵. Campbell, Mohr and Verlegh (2012) also came to the conclusion that covert marketing can increase brand recall and attitudes.⁶

In her paper *Product Placement and Brand Equity*, Corniani (2000-2001) examined the very concept of product placement, its advantages and limitations, and the impact of product placement on the consumers' awareness of the product. She stated that product placement, as a communication tool, impacts on brand equity because it influences the degree of consumers' awareness of the brand.⁷ Thomas and Kholi (2011) concluded that consumers have accepted brand placements and that in the future such form of advertising will grow exponentially.⁸

In their paper *Television Product Placement Strategy in Thailand and the UK*, Hackley and Hackley investigated the implications for international

² Product placement refers to the planned and paid insertion of a branded product within a film or any other media that is capable of influencing the attitudes and the beliefs of the audience toward that specific product

³ The impact of brand placement and brand recall in movies

⁴ The aim of this research is to explain the relationship between the acceptance of brand placement based on consumers' perception and the brand recall towards brand preference, loyalty and intention to purchase among Malaysian young movie viewers.

⁵ These findings indicate to brand managers that brand placement has become an important marketing tool to reach emerging younger generation consumers

⁶ Three experiments reveal that covert marketing, in the form of subtle product placements, can increase brand recall and attitudes

⁷ As a communication tool, product placement impacts on brand equity because it influences the degree of awareness of the brand

⁸ By and large, consumers have accepted brand placements. Given the explosion in media choices and branded entertainment, brand placement is slated to grow exponentially as advertising agencies, production companies, brand management teams, and media managers embrace this practice.

brand communications management of a quantitative research study on television product placement in the United Kingdom and Thailand.⁹ The authors came to a conclusion relevant to the practical application of product placement. In fact, both countries offer many opportunities for brands to be placed in television and therefore, in the future, could form part of a co-ordinated international promotional campaign.¹⁰ However, “local knowledge” is essential for brand clients intending to use the examined form of advertising.¹¹ A similar research was carried out by Jen Su et al. (2009) who studied the way in which product placement in Korean TV dramas affects Taiwanese consumers’ attitudes. They concluded that such form of advertising affects respondents who perceive the cultural similarity between Korea and Taiwan to be lower.¹²

Pardum and McKee (1999) conducted a survey of 106 public relations firms concerning their level of involvement with product placements as part of their public relations strategies. The findings of this research suggest that such firms actively use product placement i.e. that they often consider such form of advertising. Furthermore, they concluded that the surveyed firms are more knowledgeable about product placements than previously believed.¹³

Wilbur, Goeree and Ridder (2008) developed a random coefficients logit model of viewing demand for television programs, wherein time given to advertising and product placement plays a role akin to the “price” of consuming a program. The authors discovered that a 10% increase in the median advertising time leads to a 15% decrease in viewers. In sum, the results imply that networks should give price discounts to those advertisers whose ads are most likely to retain viewers’ interest throughout the commercial break.¹⁴

⁹ This paper discusses the implications for international brand communications management of a qualitative cross-national research study on television product placement in the United Kingdom and Thailand

¹⁰ Thailand and the UK. Both countries offer many opportunities for brands to be placed in television and therefore could form part of a co-ordinated international promotional campaign.

¹¹ Local knowledge is essential for brand clients intending to use television programme exposure in their international promotional strategy

¹² This study examines of the ways in which Korean TV dramas affect Taiwanese consumers’ attitudes toward the locations where the dramas are filmed (onscreen locations). To account for the effect of similarity between Taiwanese culture and Korean culture, the concept of perceived cultural proximity is introduced into the balance-theory-based model. However, this relationship is significant only for those viewers with high perceived cultural proximity between Taiwan and Korea

¹³ This article reports the results of a survey of 106 public relations firms concerning their level of involvement with product placements as part of their public relations strategies. The findings of this research suggest that public relations practitioners are active players in choosing whether to use product placements to enhance a client’s product or service. Results also indicate that practitioners are more knowledgeable about product placements than previously believed

¹⁴ We estimate a random coefficients logit model of viewing demand for television programs, wherein time given to advertising and product placement plays a role akin to the “price” of consuming a program. In sum, our results imply that networks should give price discounts to those advertisers whose ads are most likely to retain viewers’ interest throughout the commercial break

Hang and Auty (2010) extended the product placement research. They studied the impact of interactivity on product placement effectiveness.¹⁵ The authors concluded that in cases when the surveyed respondents, children, cannot directly interact with the placements, perceptual fluency is the underlying mechanism leading to positive affect. Therefore, the effects of the advertisements are only evident in a stimulus-based choice where the same stimulus is provided as a cue. However, in cases when the surveyed respondents, children, have the opportunity to interact with the placements in video games, they are influenced by conceptual fluency. In such instance, placements “remain” in the children’s memory.¹⁶

2.2. Product Placement in Newspapers

Product placement, as emphasized by Haramija (2011), misuses the newspaper form, because it has the form of a typical newspaper message, but it’s not. Its objective is to transfer a message to readers i.e. viewers through a newspaper article in print media or as a part of a news program in broadcast media.

When it comes to newspaper articles, product placements feature all characteristics of a newspaper article; they are hierarchically structured as newspaper articles, have a title as newspaper articles and, in most cases, are signed. On the other hand, they do not have qualities of an advertisement, such as the company logo or slogan, and their primary objective is to persuade consumers to purchase. The effect of product placement is based on the fact that consumers consider messages to be persuasive if communicated by a journalist who is considered impartial, objective, and not taking into consideration his own or his employer’s interests when writing. However, this issue should be approached carefully, because not all newspaper articles or supplements mentioning certain brands constitute a product placement; some of them really present the attitude of the journalist. More precisely, newspaper supplements will not be considered product placement in cases when, in a supplement about a specific product or service, they objectively outline both positive and negative properties of such products i.e. the specific brand. Furthermore, a newspaper supplement will not be considered product placement in cases when it indeed indicates independent and impartial sources or when it is about a particular type of product, but it does not indicate any specific trademarks (Haramija, 2011).

¹⁵ This study extends product placement research by testing the impact of interactivity on product placement effectiveness.

¹⁶ The results suggest that when children cannot interact with the placements in video games, perceptual fluency is the underlying mechanism leading to positive affect. Therefore, the effects are only evident in a stimulus-based choice where the same stimulus is provided as a cue. However, when children have the opportunity to interact with the placements in video games, they may be influenced by conceptual fluency. Thus, placements are still effective in a memory-based choice where no stimulus is provided as a cue underlying

2.3. Product Placement Regulations

The Republic of Croatia has incorporated the concept of product placement in its legislation; it is clearly defined and prohibited. In the Electronic Media Act, article 18, it is stated:

It is not allowed to use subconscious techniques in advertising and teleshopping. Product placement and misleading advertising and teleshopping are not allowed. Both client and publisher are liable for such advertising and teleshopping.

The misdemeanor provisions for violation of this paragraph provide for a fine up to HRK 1 million (Electronic Media Act, Official Gazette 122/03). Moreover, in the article 20 of the Media Act it is clearly stated: „Product placement and misleading advertising and teleshopping are not allowed“. This Act also mentions product placement in its misdemeanor provisions and prescribes a fine up to HRK 1 million (Media Act, Official Gazette 59/04).

The enforcement of the Electronic Media Act is partially monitored by a regulatory body – the Electronic Media Council – which has relatively large powers. At the same time, there is no regulatory body in charge of the supervision of the enforcement of the Electronic Media Act, except for public attorneys that react each in his/her specific area (Jurišić et al., 2007). Croatian law on product placement is clear, but the problem lies in its enforcement. Media reports from 2012 indicate that HRT (Croatian Radio & Television) was fined with HRK 300.000 due to violation of the Electronic Media Act. The following was published on the official site of the Electronic Media Agency:

The Electronic Media Council, at the session 46-12, issued a decision and pronounced three (3) misdemeanor warrants to HRT (Croatian Radio & Television) due to offences from:

- article 83 para. 1 p. 2 and para. 2 of the Electronic Media Act, with a reference to article 17 para. 1 of the Electronic Media Act, during the broadcast of the show Dobro jutro, Hrvatska, i.e. the piece Vježbajte s nama. The Council issued the decision that this particular case included the violation of the Electronic Media Act provision providing that viewers must be clearly informed of the existence of a sponsorship agreement

- article 82 para. 1 p. 14 and para. 2 of the Electronic Media Act, with a reference to article 29 para. 1 of the Electronic Media Act, during the broadcast of the show Dnevnik due to advertising that occurred in its reportage,

and it was concluded that in this particular case the advertising was not clearly separated from the other contents;

- article 46 para. 1 p. 4 and para. 2 of the Electronic Media Act, with a reference to article 37 para. 2 of the Croatian Radio & Television Act due to exceeding the advertising time limit within a given clock hour of program in June 2012.

If taken into consideration that the planned revenues of HRT for 2012, as reported in the official statements of HRT, amounted to HRK 1.414.310.000,00, it is concluded that the fine in the amount of HRK 300.000,00 is extremely low. Moreover, it should be emphasized that one out of three misdemeanor warrants relates to product placement in *Dnevnik*, and it is a well known that it is a news program, and the fact that it is broadcast on national television stresses the importance of the need for true information.

In Europe, regulations regarding product placement differ to a large extent from one country to another. In some countries, e.g. Austria and Sweden, product placement is entirely regulated by law, whereas in others, such as Belgium, the law does not recognize such a concept. Until 2007, the European Union did not allow product placement, but on 29 November 2007 the European Parliament adopted new regulations regarding television advertising which allow product placement. The new directive was named Audiovisual Media Services Directive and it eases the regulations on product placement, and the member states were supposed to transpose the Directive into national law by the end of 2009. However, countries are allowed to prohibit this form of advertising, as Germany has already announced (Haramija, 2011).

Nowadays, there is an increasing trend of publishing sensationalistic information, which leads to a high degree of sensitivity regarding the truthfulness in journalism. The Code of Honor of the Croatian Journalists' Association from 1993, states in article 4 that „journalist is obliged to report true, balanced and verified information“. It furthermore emphasizes the necessity of indicating the source of information, but also the journalist's right to preserve the source anonymity, while accepting the moral and legal responsibility for the published data. An interesting fact is that the Code of the Croatian Journalists' Association from 2009 does not contain a clearly defined provision on the provision of true information. The section of the Code dealing with the journalist's profession emphasizes the search for truth, whereas in the section on the information flow, it is stated that information have to be accurate, complete and verified (Labaš and Grmuša, 2012). The said Code does not prohibit mentioning names or similar features of specific products by the journalist, as long as his/her words are true. This leaves room for journalists to promote a specific product by emphasizing only its positive sides.

3. Research Results

As indicated in the section on the research methods, the survey questions were developed based on the researches conducted by Haramija (2011) and Jurišić et al. (2007). The said authors carried out a research on the frequency of occurrence of product placements in newspapers, and this research, based on their researches, examined consumer awareness of the said phenomenon. It is exactly due to the above reasons that, when analyzing the obtained results, a comparison will be done with the findings of the above named authors.

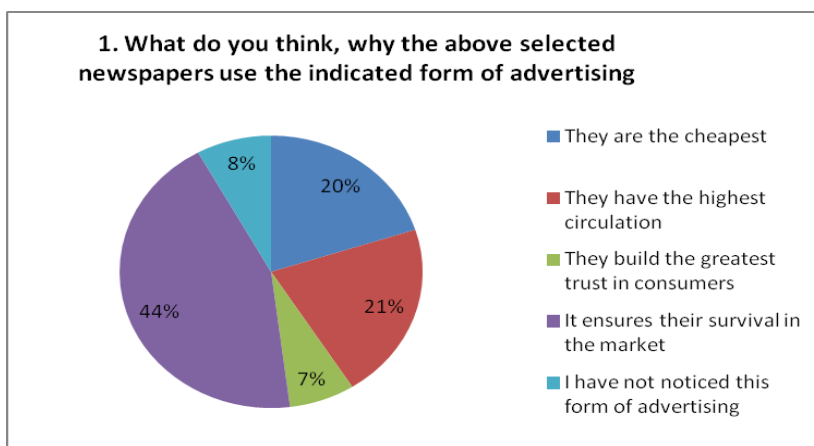
3.1. Presence of Product Placement in Daily Newspapers

Due to the frequency of occurrence of product placements in daily newspapers, respondents were asked in which daily newspapers, according to their opinion, such form of advertising is mostly present. The highest percentage of respondents, i.e. 77% (82 respondents), answered that product placement is mostly present in *24 sata*, followed by *Jutarnji list* with 7% (8 respondents), *Večernji list* with 2% (2 respondents), and *Slobodna dalmacija* with 1% (1 respondent), whereas 13% (14 respondents) have never come across such form of advertising.

Haramija's research (2011) obtained exactly the opposite results. Namely, he stated that product placement occurs almost on a daily basis in daily newspapers, with one to five placements on average. He noticed a significantly lower presence of this form of advertising in the most read newspaper in the Republic of Croatia, *24 sata*, than in other newspapers; more precisely, not more than one placement a day. The results show that the hypothesis stating that respondents would believe that most product placements are present in *24 sata* was proven to be correct.

The obtained results suggest a high level of manipulation of readers. Namely, on the question: „What do you think, why the above selected newspapers use this form of advertising?“, the largest share of respondents, i.e. 44% (47 respondents), responded that it allows the daily newspapers to survive in the market. Due to the fact that *24 sata* is well-known for a large number of advertisements, we can conclude that readers have difficulties to recognize product placements. Even though in the first question, a large share of respondents answered that they had been introduced to the meaning of the concept of product placement, as much as 68% of respondents, it is evident that they experience difficulties in recognizing a product placement as such. These results do not come as a surprise, also due to the fact that product placement often remains unpunished partly because of the difficulties in distinguishing between product placement by the journalist, i.e. the person advertising in the particular instance, and his/her personal opinion. When it comes to the hypothesis stating that respondents, before responding to the survey questions, were not familiar with the meaning of the concept of product placement, according to the survey

results, the said hypothesis is rejected. Nevertheless, as the largest share of respondents answered the question „What do you think, why the above selected newspapers use this form of advertising?“ by claiming that product placement ensures the survival of the newspaper in the market and given that *24 sata* are loaded with classical advertisements, it can be concluded that respondents do not entirely understand the concept of product placements after all. The graph below shows other opinions of respondents on the reasons for product placement:



Graph 1 Reasons for the use of product placements in certain daily newspapers

Source: Authors (2013)

3.1.1. Forms of Manifestation of Product Placement in Daily Newspapers

Jurišić et al. (2007) studied in what form product placements are presented in daily newspapers. The results show problematic practices in advertising. Namely, as much as 32,1% of product placements are present throughout text, thus greatly affecting consumer decisions. 27,8% of this form of advertising appear in one sentence of the author's text, while 22% of product placements appear in several author's sentences. This is followed by the presence of product placements in quoting press releases, media statements and reports for press conferences in 11% of cases, and in the interlocutor's statement in 7% of appearances.

A frequent problem for analysts are texts in which corporations donate for charity, because they are put in doubt by such texts. The authors have found an example thereof in a newspaper article published in *Jutarnji list* on 23/12/2006 which says: „T-mobile distributed 2000 gifts to sick children“. On the face of it, it is indeed a news, but when the text is read, it is evident that only one corporation source is indicated, namely with the statement: „...the warmth with which the

employees chose and packed the gifts is touching – said Maja Weber, manager of the Public Relations Department”. Moreover, the journalists did not give an opportunity to the persons who received the gifts or their representatives to express their gratitude. In the same newspaper, on 31/12/2006 and 1/1/2007, pp. 38 and 39 across the centerfold, there was the following text: „The skiing stick that was purchased by T-mobile through *Jutarnji list* will be sold for charity every year from now on“. The company’s name was mentioned in five out of nine paragraphs and the topic sentence pointed out: „Thanks to an unselfish gesture of the telecommunication company T-mobile...“. The text is supported by photos of a famous skier with a skiing suit displaying the company slogan. The authors emphasize that they do not deny the humanitarian nature of the news in the aforementioned example, but they are concerned about the introduction which is very partial.

Based on the above text, the authors have concluded that it is really not difficult to notice that one of daily newspapers and one of telecommunication companies collaborate, i.e. collaborated, in product placement. The authors have also concluded that a big problem lies in the fact that, despite the unlawful level of such cooperation, no sanctions have been imposed. It is important to mention that the above mentioned text is only one of many examples of product placement in daily newspapers. The authors consider that these practices are expected due to the lack of regulation of product placement.

3.2. Product Placement in Specialized Newspaper Supplements

Haramija (2011) stated that specialized supplements are the most frequent place of occurrence of product placements and that they are typical of all Croatian newspapers. Product placements mostly appear in weekly supplements dedicated to fashion and in the entertainment pages; these texts mostly appear without signature. Jurišić et al. (2007) provided a table of the frequency of occurrence of product placements in specialized supplements in Croatian newspapers:

Table 1

Frequency of occurrence of product placements in specialized supplements in Croatian daily newspapers

Section	Newspaper		Total
	<i>Jutarnji list</i>	<i>Večernji list</i>	
Entertainment – Life – Performances	14,5	23,3	19,6
Event of the day – Croatia	14,5	15,9	15,3
City pages	14,5	12,7	13,5
Sports	7,2	2,6	4,6

Economy	8,7	0,0	3,7
Supplement – Politics (periodical)	4,3	3,2	3,7
Supplement – TV magazine	3,6	3,2	3,4
Supplement – Review	10,8	2,6	6,0
Supplement – others (Auto Moto, Real estate)	14,5	28	22,3
Crime news	1,4	3,7	2,8
Foreign policy	0,7	0,0	0,3
Culture	2,2	2,1	2,1
Comments	1,4	1,1	1,2
Last page	1,4	1,6	1,5
Total	100	100	100

Source: Jurišić et al (2007)

Respondents in the conducted survey were also asked in which of the aforementioned sections they had noticed the largest number of hidden messages. When it comes to the entertainment - life supplement, respondents believe that the largest share of product placements is present exactly in this section, i.e. 69% (72 respondents). It is followed by the supplements TV-magazine, Review, Auto moto, Real estate with 6% (6 respondents), which approximately overlaps with the results of the above mentioned research. The biggest problem in the readers' awareness of product placement is found in the supplements dedicated to the event of the day. Only 1% of respondents, i.e. 1 respondent, thinks these are targeted by product placements, whereas the actual state is that as much as 15,3% of product placements appear in such supplements. The aforementioned results confirm the hypothesis stating that respondents would think that the largest number of product placements is present in the sections specialized in entertainment and fashion.

Well known is the case of a product placement in the supplement dedicated to the event of the day, when the news "Day of free conversations" was published on 24/12/2006 in *Večernji list*, on the 4th page. The article described a new campaign of the telecommunication company Vipnet, and the news was laid out in such a way that it appeared between the following news: „Đapić and Ivić talked the day before“ and „Istrians organize a petition against the glass wool factory“.

In their research, Jurišić et al. (2007) provided another interesting matter, i.e. the frequency of occurrence of product placements by day of the week. The analysts were interested in the connection between Friday, when the newspapers are most sold because of the included TV magazines, and the number of product placements. However, it is not possible to conclude the existence of the assumed connection from the obtained results. Namely, as much as two days of the week, Wednesday and Saturday, have a larger number of product placements than Friday. The results are shown in the table below and the connection between the number of product placements and the days of the week needs to be further investigated:

Table 2

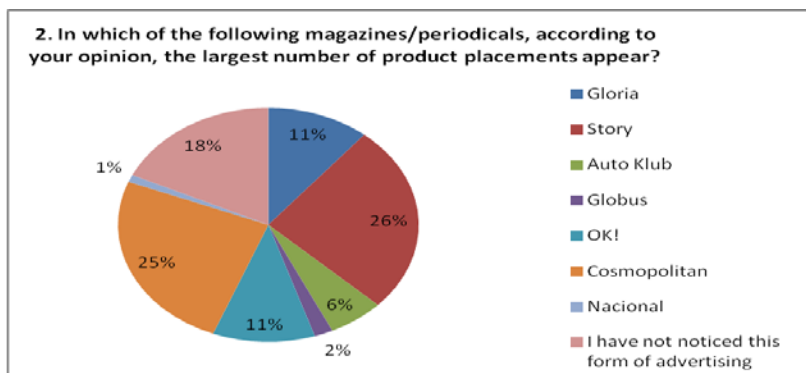
Connection between product placements and the days of the week

Day of the week	Newspaper		Total
	<i>Jutarnji list</i>	<i>Večernji list</i>	
Monday	12,3	10,6	11,3
Tuesday	8,7	7,9	8,3
Wednesday	8,7	22,2	16,5
Thursday	14,5	13,8	14,1
Friday	17,4	15,3	16,2
Saturday	29,7	17,5	22,6
Sunday	8,7	12,7	11,1
Total	100,00	100,00	100,00

Source: Jurišić et al (2007)

3.3. Product Placement in Croatian Magazines

It is well known that product placement often occurs in magazines i.e. periodicals. Respondents were asked in which of the listed magazines they believe the largest number of product placements appears. The answers are shown in the graph below:



Graph 2 Occurrence of product placements in magazines/periodicals

Source: Authors (2013)

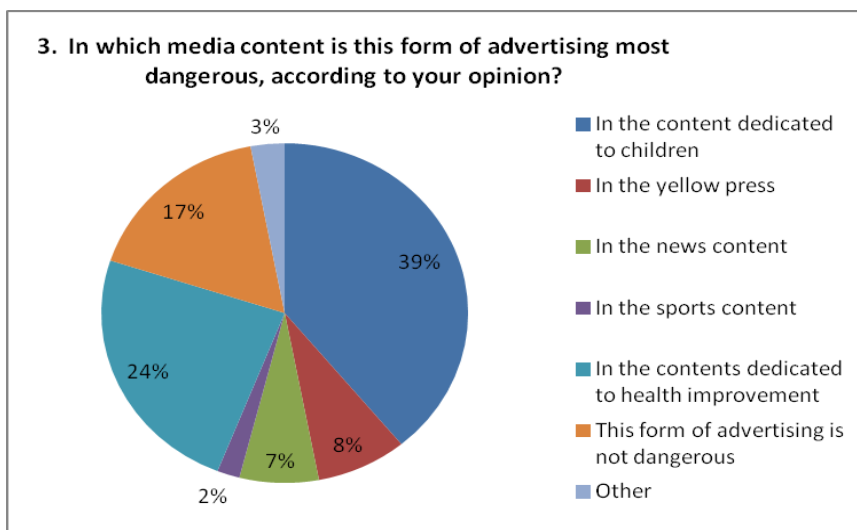
Respondents believe that the largest number of product placements is present in *Story*, i.e. 26% (28 respondents), followed by *Cosmopolitan* with 25% (27 respondents), and *Gloria* and *OK!* each with 11% (12 respondents), *Auto Klub* with 6% (6 respondents), *Globus* with 2% (2 respondents), *Nacional* with 1% (1 respondent), whereas 18% (19 respondents) have never come across such form of advertising.

Haramija (2011) indicated that a smaller number of product placements had been noticed in the leading weekly magazines *Gloria*, *Story*, *AutoKlub*, *Globus*, *Cosmopolitan* and *Nacional*, but, due to the publishing rhythm, even a greater number of product placements in comparison to daily newspapers. Since these are entertainment magazines, the texts published in them are not considered credible, thus reducing the misleading effect of product placement.

Moreover, it should be pointed out that newsweeklies *Globus* and *Nacional* have plenty of product placements. Some sections, such as „Shop-window“ in *Globus*, are entirely made of product placements. In these sections, specific products standing for fashionable style are promoted under the guise of the journalist's viewpoints. It is not rare that celebrities are used to promote specific products and services.

When it comes to the issue of consumers being threatened by product placements, most respondents, i.e. 58% (62 respondents), believe they are not threatened because of the presence of product placements. As it is evident from the above mentioned survey responses that respondents are basically not aware of the presence of product placements, it is to expect that they are often threatened without being aware of it. On the other hand, 21% (22 respondents) believe to be threatened by product placements as consumers, whereas 21% (23 respondents) don't know i.e. are not sure. The assumption that respondents would believe that such form of advertising threatens them is disproved.

Moreover, respondents were asked in which media content such form of advertising is mostly dangerous, according to their opinion. Most respondents, i.e. 39% (42 respondents), think that it is mostly dangerous in the contents dedicated to children, followed by the contents dedicated to health improvement with 24% (26 respondents). The above confirms the hypothesis stating that respondents would believe that product placement is mostly dangerous in the contents dedicated to children. Other results are shown in the graph below:



Graph 3 Danger of product placements in individual media contents

Source: Authors (2013)

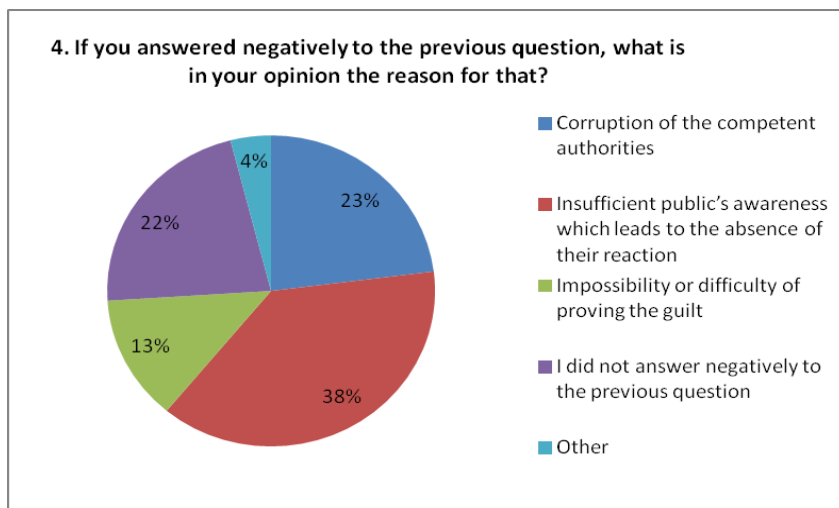
Jurišić et al. (2011) stated that most product placements were noticed in the magazine *OK!*, ranging from 130 to 200 product placements in each issue. These results are problematic, as respondents concluded in the above mentioned survey question, because of the audience the specific magazine is meant for. Namely, they are not capable of distinguishing a newspaper text from an advertisement and this is a vivid example of immoral behavior.

3.4. Legislation in Practice

Even though there is legislation in the Republic of Croatia that regulates product placement, the general public knows very few cases of punishment of such form of advertising. In the above mentioned survey, respondents were asked about the legislation in case of product placement. On the question whether they believe that prevention of such form of advertising is well regulated by law in the Republic of Croatia, only 9% of respondents responded that prevention of such form of advertising is well regulated in the Republic of Croatia, whereas 46% (49 respondents) think that it is not well regulated, and 45% (48 respondents) don't know i.e. are not sure. This is confirmed by the results of the next question where 94% of respondents answered that they have never heard of a case of punishment of such form of advertising in the Republic of Croatia, even though they are aware of its existence. For the hypothesis stating that respondents would not think that product placement is well regulated in the Republic of Croatia, it is not possible to pronounce a judgment regarding its acceptance or rejection. However,

the hypothesis stating that respondents would not know about the cases of punishment of product placement in the Republic of Croatia is confirmed.

As already concluded, the legislation in the case of prohibition of product placement i.e. punishment of such form of advertising are not accordingly enforced and the question arises as to what is the reason for that. Although the exact reason is not known, respondents were asked what the reason for that is according to their opinion. Most respondents, i.e. 41% (38 respondents), think that the reason for that is insufficient public's awareness which leads to the absence of their reaction. The second place is held by corruption of the competent authorities, i.e. 23% of respondents consider it the reason for the absence of legislation governing product placement, while 13% of respondents see the reason for that in the impossibility or difficulty of proving the guilt. The last hypothesis stating that respondents would think that the cause for poor law enforcement lies in the impossibility or difficulty of proving the guilt of advertisers is disproved, because only 13% of respondents reacted in accordance with the posited hypothesis. Namely, the results showed that most respondents, i.e. 38% of them, think that poor law enforcement is caused by insufficient public's awareness which leads to the absence of their reaction, whereas 23% of respondents believe that the reason for that is corruption of the competent authorities. The results are shown in the graph below. It should be mentioned that the previous question was: „Do you think that the Media Act (which prohibits product placement) is accordingly enforced in the Republic of Croatia?“:



Graph 4 Causes of non-functionality of the legislation

Source: Authors (2013)

4. CONCLUSION

In the end, it can be concluded that product placement represents a big problem both in Croatian and international mass media. Despite the statutory legislation and journalists' codes, under the pressure of advertisers and PR experts product placement is increasingly becoming a conventional practice.

Product placements in the entertainment contents represent the greatest danger in the contents dedicated to children. They are not capable of recognizing such form of advertising, thus becoming misled after being exposed to product placements. The best known example in the Republic of Croatia is to be found in the youth magazine *OK!*. It provides various advices on fashion and beauty that induce the readers to use certain products or product brands with the explanation that these are the highest quality products. Unfortunately, it constitutes a paid advertisement that, if, moreover, presented by a reader, leads to a large increase in demand. No data on punishment of the outlined case are found in the literature.

A special problem associated with product placement is represented by its occurrence in the news media. They are expected to be true and objective, so that important decisions regarding the future can be made based on the information obtained from the news media. The presence of product placements in the news media, which are unrecognized by the public, bring substantial benefits to advertisers, but not seldom also big harms to the exposed public. From all the above, it can be concluded that the phenomenon of product placement is extremely neglected and also an omnipresent punishable offense which affects the judgment of many. The cause for the absence of a reaction to the said unlawful activities can be searched for in many items. One of them is the absence of the public's awareness and their light hearted understanding of the issues resulting from such activities. On the other hand, it is beyond a doubt that both advertisers and media corporations are aware of the fact that it is a legally prohibited form of advertising. The only reason why a media corporation would not report another media corporation, which is, moreover, its strong competitor, for breaking the law, can be detected in the fact that both companies use product placement advertising.

Lastly, based on the specific objectives of the research, the authors defined the concept of product placement and provided an overview of legislation affecting product placement. When comparing the respondents' awareness of the presence of product placement and the actual situation, the authors came to the conclusion that the respondents have insufficient awareness of the presence of product placement. As the main reason for that, the authors concluded that the public has a problem with recognizing product placement and is not aware of the danger of the investigated type of advertising. Referring to the attitudes of the respondents regarding the danger introduced by product placement, a large number of the respondents, i.e. 80%, believe that product placement represents a certain level of danger. The authors consider that this is still an insufficient share

of respondents, since the research results revealed that the respondents are often not able to recognize product placement.

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TOWARDS A NEW PARADIGM OF INTEGRATED MARKETING COMMUNICATION?

JEL classification: M300, M310

Abstract

Marketing communication has been undergoing dynamic transformations in recent years. The main factors influencing those changes are: globalization, technological progress and the digitisation of life. Moreover, customers' needs and expectations related to the communication are evolving as well. Because of those changes, there is a need to adjust the concept of integrated marketing communication to the new reality. Therefore, the purpose of this paper is twofold. First, to analyse the consequences of above-mentioned transformations for the concept of integrated marketing communication. Second, to discuss the need of elaborating a new marketing communication paradigm and to indicate the directions and areas that ought to be adjusted. These deliberations will be based both on critical literature analysis and results of research carried out by the author.

Key words: integrated marketing communication, transformations, image

1. INTRODUCTION

An organization cannot properly function without the communication with the environment. It should be noted that the environment is understood as various groups of stakeholders (as it is normally assumed in the light of the public relations approach) and it should not be limited to merely customers. In the recent years corporate communication has been dynamically changing. The main reasons of this fact are: the intensive development of technology, the progressing globalization, as well as social transformations, leading to the changes in people's attitudes and behaviour, in relation to both consumption and communication. As a

result, techniques, strategies and principles of communicating with the environment need to be adapted to the present reality. The undertaken actions should not have an immediate character, but rather be long-term and strategic. That is why, it has become necessary to revise the assumptions of the integrated marketing communication.

The objective of the present study is the analysis of the technological, economic, and social effects of the integrated marketing communication concept. Moreover, the study will indicate the areas of the communicative activities which need to be adapted to the present conditions. These considerations will be based on the critical analysis of literature, as well as on the author's own research results.

2. THE CONCEPT OF THE INTEGRATED MARKETING COMMUNICATION

An undoubted benefit of the information era is the easy and fast access to data, but on the other hand, it is also associated with the communication chaos and the overload of information. The modern societies are bombarded with messages, many of which they regard as annoying, distracting, or unnecessary. As a result, companies are facing a huge challenge in relation to their communication activities.

The subject literature admitted the necessity of reaching consumers by various channels and tools a long time ago. The need for their integration was first pointed out in the 1980s, when it was stated that marketing and public relations are not separate functions with different target groups, but they complement each other. Because of the change in the approach to both these areas, the model which grew in significance was the one whereby these functions should be integrated, coordinated, aligned and in some cases completely fused [Torp 2009, s. 192]. This was the beginning of the Integrated Marketing Communication (IMC) concept. However, even though so much time has elapsed since then, this concept is still far from unambiguous and different authors emphasize different aspects of IMC in their definitions, often in opposition to earlier approaches.

According to Duncan, IMC is: [...] *“the process of strategically controlling or influencing all messages and encouraging purposeful dialogue to create and nourish profitable relationships with customers and other stakeholders”* [Duncan and Caywood, 1996, p. 18]. A few years later this definition was expanded by Duncan and Mulhern, who described IMC as: *“an on-going, interactive, cross-functional process of brand communication planning, execution, and evaluation that integrates all parties in the exchange process in order to maximize mutual satisfaction of each other's wants and needs”* [2004, p. 9]. It should be noted that the marketing communication as a process crosses the traditional departmental boundaries. This point of view is shared by Christensen,

Firat and Torp, who claim that IMC evolved from the rather bounded and specialized activity to an organization-wide issue and concern [2008, p. 425].

Shultz defines IMC as “(...) *strategic business process used to plan, develop, execute and evaluate coordinated, measurable, persuasive brand communications programs over time with consumers, customers, prospects, employees, associates and other targeted, relevant external and internal audiences*” [2004, p. 9]. It should be stressed that the author points to the employees as one of the important groups of the targets of the activities undertaken within the marketing communication.

The need for looking at a company’s communication activities as a whole, undivided into separate areas, such as: marketing communication, corporate communication, or internal communication, has been more and more frequently pointed out in the recent years. As a result, there is a growing number of supporters of the Integrated Communication (IC) concept, defined as “*the notion and the practice of aligning symbols, messages, procedures and behaviors in order for an organization to communicate with clarity, consistency and continuity within and across formal organizational boundaries*” [Christensen *et al.* 2008, p. 424]. The authors argue that if those in charge of the communication management in organizations do not understand that all acts of communication must be cohesive, their influence will be much smaller. In consequence, the organization’s image and the perception of its brands will suffer.

3. THE CONSEQUENCES OF THE SOCIAL TRANSFORMATIONS FOR TODAY’S MARKETING COMMUNICATION

3.1. The social transformations

Over the last decades the social sphere has been undergoing intensive transformations, which to various degrees have affected the present shape of the society. The main phenomena included here are, among others: the globalization with the resulting migration, the growing (on the global scale) population, the ageing societies (especially in Europe), the developing urbanization, the growing wealth of the rich, as well as the emancipation of women. From the perspective of the marketing activity, the most significant social-cultural trends are growing consumptionism versus the ecologization of consumption, virtualization of life and home-centrism and a shift from individualism to tribalism defined in a new way [Kacprzak-Choińska 2007, p. 15]. Thanks to the access to the developed communication and information processing media, in the present societies the national revenue is based on the information processing, which is a source of income for the majority of citizens [Goban-Klas and Sienkiewicz 1999, p. 53]. Such a society is called an information society. However, in spite of its numerous positive aspects, it is also exposed to certain threats. Some people think that its functioning may lead to a new division of the world, as well as deepen the social,

civilizational and economic differences. This can be explained by the various degrees of development of technologies indispensable for processing and managing information in different countries [Portal Wiedzy Onet 2014]. Another important issue are the citizens' digital competences, which are often insufficient to face the modern challenges. The digital competences are defined as: “*a group of information competences, which include the ability to seek information, understand it and assess its credibility and relevance, as well as the IT competences, i.e. the skill of using a computer and other electronic devices, using the Internet and various types of applications and software and also creating digital content*” [Szymanek 2013, p. 14]. With the growth of the above mentioned competences, the chances for the satisfactory functioning in the information society are also growing. What is more, such competences make it possible to obtain and use reliable information concerning products and services, which facilitates making purchase decisions. Many studies emphasize the relationship between the extent of using the computer and the Internet and the life situation of the users, both in the professional and in personal sense [Batorski *et al.* 2012].

The progressing virtualization of life, the development of information technologies and the media allowing for forming virtual communities may create an impression that the information era is nearing its end. According to Fidelman, in 2010 the social media era started, as a response to the excess of information, which had an overwhelming effect on people [2014, p. 28]. Seeking the possibility of prioritizing and finding the sense in the available messages, people turned to social networks, such as: Facebook, Twitter, LinkedIn, or YouTube. Fidelman argues that maintaining the competitiveness and effective communication in today's world is possible only under the condition of integration and acting within the above mentioned social media. An important fact is that it refers to the communication with both internal and external customers. It should be remembered that the social entrepreneurship requires the introduction of business culture based on a target, a mission, common values, but also the economic and social business environment [*ibidem*, p. 67].

The transformations described above are by no means the only phenomena shaping the modern society, but they are crucial from the point of view of the companies which seek the ways of reaching the society members with the message about their offer. The presented trends, especially the social media trend, influence the attitudes and behavior of people as participants of the market, therefore they also affect their approach to and expectations of the marketing communication messages.

3.2. The network paradigm vs. marketing communication

The development of technology has undoubtedly brought about significant changes in the life style and ways of communicating – especially in

relation to the globalization and the computerization of the modern world. It has also contributed to the emergence of a new concept of a society – the network society. It is based on the network of social relations, but also the free access of an individual to social groups, organizations, or interest groups. The individual is a tie which, by entering interactions with other individuals, forms a network of relationships. Thanks to the new technologies the number of such relationships is unlimited. According to M. Castells, networks are „*a new social morphology of communities*” [Castells 2008, p. 467].

From the point of view of the marketing communication management, the essential aspect of the network society is its ability to organize new and complex information relationships (e.g. by means of digital communication) [Stachowicz 2011, p. 202]. In this way, messages sent by individuals extremely quickly spread within the network and a single opinion may influence many other people’s opinions. Therefore, customers have a huge power in creating brand images, both in the positive and negative sense. For this reason, it is essential to identify the major actors of the network, those with the strongest social influence, in order to win their favorable, or at least neutral opinions about a company’s products or services. The *Social Network Analysis* (SNA) is a useful tool for this purpose [Waserman and Faust 1994]. The above mentioned actors often become opinion leaders, playing the role of interpreters, who first receive and interpret a message, and then convey their interpretation to other participants of the network [Kaczor 2014, p. 97]. As a result, they are the senders of the content modified in a way that reflects their own outlook. The marketing messages undergo the same process.

3.3. The modern “recipient” of marketing messages

Persuading potential buyers to accept a company’s market offer is to a lower and lower degree based on the marketing activities, including the traditionally understood marketing communication. Today it mainly relies on forming ties with customers (e.g. by sharing their values and beliefs), as well as on maintaining the relationship, especially in the virtual sphere. Due to the progress of technology and the broad access to information, customers constantly demand a response to their communication needs related to the market offer, and they expect companies to be transparent in all areas of their activity. At present, companies are supposed to be where their customers are and every contact with the organization should provide consumers with a positive experience. Because of the growing popularity of all types of mobile devices used by consumers for making their buying decisions, the presence in the Internet and the social media has become an absolute necessity for companies. What is more, nowadays consumers trust their acquaintances and friends – both real and virtual – more than companies. Therefore, the traditional promotion is losing its appeal, as the most important talks take place between consumers, not between a company and a consumer [Consumer 2020..., p. 17-21]. It should also be stressed that at present consumers are no longer passive recipients of information, as many of

them not only actively create various types of content, but also build communities around ideas, beliefs, or even specific products or services. That is why, customers are not only the supporters or the critics of brands, but they are also to have their part in the development of the market offer, especially in relation to the companies they feel related to. All the above mentioned phenomena have specific implications for the communication activities of companies.

3.4. Integration in marketing communication

In the traditional approach, marketing communication is initiated and managed by the organization, which controls its own interactions with consumers. However, in 2006 it became clear that there is a need to adopt a new approach, whereby the customer is the active part of the process. It stems from the fact that the integration of various types of messages takes place on the recipient's side [Schultz 2006, p. 7]. It should be emphasized that this is true of both the messages which are planned and initiated by a company and the so-called invisible communication. It occurs when from the point of view of a company no information about the organization or its offer is given, but from the point of view of a customer such information is revealed. The invisible communication has a growing influence on the recipients' behavior and therefore its identification and understanding is a real challenge to those involved in the corporate communication management. It is a very important fact that customers integrate messages regardless of their source, prioritizing them as they wish, trusting some sources and rejecting others [Finne and Strandvik 2012, p. 121]. Thus they play an active role in the integration of messages, also those of the marketing character.

From the point of view of an organization, the integration of the marketing communication should occur on several surfaces: [Stoica and Cretoiu 2009, p. 1063]:

- horizontal – based on the integration of marketing instruments and business functions;
- vertical – based on the assumption that marketing and communication objectives contribute to the implementation of an organization's major purposes;
- internal – including the preparation and the motivation of the staff in the area of the functioning of the organization, as well as the customer service, with a view to obtaining the coherence of actions;
- external – related to the cooperation between the advertising and public relations agencies, in order to convey a clear message to the environment;
- data – based on creating a marketing communication system in a company, which allows for effective collection of data about customers.

According to the assumptions, the integration is a multi-level process of a strategic significance. It includes the coordination and the management of stakeholders (internal and external), messages (controlled and uncontrolled), channels and results [Johansen and Andersen 2012, p. 275].

The integration of corporate communication from the point of view of a company differs from the integration of messages conducted by recipients. First of all, companies focus on the integration of channels and the integration of messages is limited to those of the marketing character. Thus, the unconscious invisible communication and the messages whose recipient – in companies' opinion – is not the customer are disregarded. However, at the stage of absorbing messages, the recipients focus on the integration of their content and the selection of the integrated content does not depend on who is the addressee of the message. The source of the information plays a much more important role and the non-corporate sources are more valued [Rogala and Wielicka 2015].

Moreover, from the perspective of a company, the integration of communication takes place in a specific order and according certain rules. Among others, it is assumed that particular channels, tools and targets of the communication activities are compatible. Nevertheless, it is the recipient who selects and absorbs messages, on the basis of their own expectations and preferences. It is the recipient who decides about what, when and how they will obtain information and also which sources they will trust. In the era of the network society, various types of communities are the opinion leaders. As a result, the integration of information often takes place not at the level of an individual, but a community, usually a virtual one.

Organizations aim at making their marketing messages compatible and not mutually exclusive. However, today's recipients expect more. The cohesion of the marketing communication at the declarative level is insufficient. They want each message sent by an organization – regardless of its character and its recipient – as well as each aspects of the company's activity to be consistent with the declared values [Yeboah 2013, p. 86]. What is more, consumers expect a company and its staff not only to practice the declared values, but also truly believe in them.

4. THE CHALLENGES OF TODAY'S INTEGRATED MARKETING COMMUNICATION – TOWARDS THE MODIFICATION OF THE CONCEPT

The transformations taking place in the social, technological and information sphere lead us to a conclusion that it is justified to treat the corporate communication as a whole, i.e. all the communication activities undertaken by a company should be integrated into one coherent message. It is particularly significant in view of, on the one hand, the common access to information, the speed of information flow, the democratization of the media and the growing

popularity the social media and, on the other hand, the falling interest in and trust to the traditionally understood promotion. Therefore, from the perspective of companies, integration is nowadays an extremely difficult to manage process, mainly due to the increasing role of the invisible communication in shaping the response to messages and also because of impact of the online social communities on the way the target audience select and receive messages.

The changes in today's consumers' behavior imply the necessity of modifying the integrated marketing communication concept in such a way that it will be capable of meeting the challenges it faces. The majority of them are related to the earlier mentioned information and media revolution. One of the challenges is the need to adapt the employed communication tools to those preferred by the recipients. It stems from the fact that the traditional forms of communication are losing their attractiveness and, consequently, their effectiveness, whereas the number of online messages recipients – users of smartphones, tablets and mobile applications is growing [Kotler *et al.* 2010, p. 20]. As a result, communication is becoming an increasingly interactive process and takes place on a “one-to-many”, “one-to-several”, “one-to-one” and many-to-many” basis [Danciu 2013, p. 42]. Moreover, the consumers' position as participants of the marketing communication process has also strengthened. They are no longer mere recipients, but also co-creators of the content, due to their activity in the virtual sphere – in the social networks, forums, blogs, or videoblogs [Rogala 2014b]. The important fact is that the content placed by other consumers is considered more reliable than the marketing messages issued and managed by the organization. Therefore, it is necessary to constantly monitor the messages published in the virtual sphere. At the same time, however, it has to be remembered that a company has a very limited chance of controlling them.

Another difficulty is related to the earlier mentioned integration of messages. Unlike a dozen years ago, at present this process is controlled by stakeholders rather than companies. The former group is the proactive part of the process, as they decide about what, when and where they want to see and hear, whereas combining messages from different sources does not always meet deliberate and rational criteria. For this reason the coherence of all the elements of the communication system is so crucial, in order to achieve the maximum of convergence of individual stakeholders' experiences [Wiktor 2013, p. 77]. It is related to another challenge, i.e. the necessity to ensure that the values declared by the organization are reflected in all the manifestations of its activity, which means that they need to be practiced. As Hajduk argues, the effectiveness of the multidimensional communication depends on its coherence, which, in turn, relies on the marketing communication integration on three levels: internal, external and corporate external [Hajduk 2010, p. 28]. Therefore, the messages communicated by a company must converge with its vision, mission and strategic assumptions.

Regardless of whether the recipient deals with communication planned and controlled by a company, or random and informal, the message should be

coherent and unambiguous. It is also true of the communication with employees, whose attitudes and opinions play a significant role in the marketing communication process. It can be explained by the fact that a company's internal communication shapes the internal image of the organization, the employees' knowledge about their company's offer and their willingness to recommend it, as well as their readiness to recommend the company as an employer. Moreover, on the basis of the research¹ conducted by the author of the article it was established that there are statistically significant positive relations between the achievement of internal communication objectives and the assessment of the consistency of internal and external communication in particular aspects, as well as between the overall evaluation of internal communication effectiveness and the evaluation of consistency of comprehensive communication activities [Rogala 2014a]. Consequently, internal communication takes part in shaping employees' attitudes in relation to both the organization and to the world outside it. Therefore, from the point of view of the organization's communication integration, it is essential to ensure the coherence of these attitudes.

In its present understanding, the marketing communication needs to be coherent. This coherence is seen by Cornelissen and Lock as the promise of "*order, stability and predictability in an otherwise fragmented and confusing world*" [2000]. Lost in the information jungle and confused by often mutually exclusive messages, a consumer will appreciate the communication strategy which is homogeneous and consistent with the organization's values. This view is shared by Porcu *et al.*, who claim that the main objective of IMC is the consistent, transparent and using the synergy effect communication to various groups of stakeholders. The authors point to the four basic dimensions of IMC [Porcu *et al.* 2012, p. 326-329]:

- one voice communication – the achievement and maintenance of a unique image and positioning and clear delivery of coherent messages through online and offline marketing communication tools;
- interactivity – the element that allows the paradigm shift: to set a constant dialogue with stakeholders through a two-way communication;
- cross-functional planning – strategic integration has to take place in the organization as a whole, since messages may come from all departments and not only from the marketing department;
- profitable, long-term relationships – the highest strategic dimension, representing the main purpose of IMC.

¹ The quantitative research in the form of direct and online surveys, conducted in 2013 in: production, service, trade-production and trade-service types of companies in Wielkopolskie voivodeship (Poland). The research comprised employees, representing all levels of management. Throughout the survey 787 direct and 611 online questionnaires were collected, 1,354 of which were qualified for the further study. The project was financed with the National Science Center resources, granted on the basis of the decision number DEC-2011/03/N/HS4/00701.

The implementation of this concept of communication activities enables the organization to build profitable relations with the outside community. In this multifunctional and interdisciplinary approach, taking the organization as a whole as the point of reference, the integration conditions the competitive advantage. It is achieved due to the interactivity and optimization of relationships between messages, channels and recipients, not just the coordination of particular elements of the marketing mix.

Over the years the IMC concept evolved from the approach assuming the integration of activities related to: advertising, sales promotion and public relations, towards the treatment of an organization's communication as a whole. However, it seems necessary to include in these considerations also the shift in the roles played in the processes of communication and integration by both the organization and its various stakeholders.

5. CONCLUSIONS

As Christensen, Firat and Cornelissen rightly point out, the integrated communications present a paradox to contemporary communication management [2009, pp. 207-208]. In the times of the developing informatization, globalization and virtualization, integration seems to be the most sensible method of the corporate communication management. For the time being, however, it is an ideal, a target a company should aim at, but at the moment unachievable. It would be difficult to assume that an organization manages to integrate all the communication acts it participates in (including those within the invisible communication), as well as the messages created by the former recipients of the marketing communication.

Nevertheless, in spite of these difficulties, companies should not feel free from the efforts aimed at ensuring the coherence of all the communication activities, with the particular emphasis on those related to a company's image. Regardless of the target recipients of their activities, it is essential to make every effort to ensure the consistency of the conveyed messages, as well as the comprehensive and integrated approach to the communication policy of a company.

Taking into consideration the more and more important role of traditionally defined receivers in the marketing communication's messages creation, as well as the impact of invisible communication on the corporate image, it is necessary to search for new promotional mix. Nowadays, one can observe increasing confidence in the independent communication channels and tools, as well as in unintended messages that are sent to the environment. Therefore, it seems justified to treat consumers not only as targets, but also co-creators of marketing communications. Never before, in such a high extent they had the opportunity to express their independent opinions about the company and its products and to influence other consumers' opinions. That is why

organizations should focus on initiating communication and creating a community around brands, primarily by providing the appropriate platform for ideas and opinions exchange and by shaping atmosphere encouraging to discussions.

In the light of deliberations made in this paper, the concept of integrated marketing communication needs to be adapted to contemporary realities. As part of the research, the author intends to develop the current model of marketing communication, including all the described changes. However, before the publication, it needs empirical verification.

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MICROECONOMICS

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ANALYSIS OF THE BUSINESS CYCLE – THE MARKOV-SWITCHING APPROACH

JEL classification: C63, C82, E37

Abstract

One of the most effective methods of modeling the current and prediction of the future economic situation is the analysis of the business cycles. Some of the analysis are based on the business tendency surveys. Respondents' answers to the questions from the surveys are found to be correlated with the official assessment of the economic situation and some of them seem to be completely inaccurate. Nonetheless the gathered data could be used to identify turning points of the business cycle in Poland. In the article Markov-switching models and their usefulness to the analysis of the macroeconomic time series are explored. Turning points from the presented algorithm were compared with the dating given by the OECD. Time delay between the reference and the calculated time series varied depending on the considered historical time interval. It is however sometimes possible to determine the parameters that allow getting the leading indicator. This knowledge could be used by policy-makers to react upon the upcoming crisis on time.

Key words: business cycle turning point detection, Markov-switching model, Viterbi path

1. INTRODUCTION

There are many methods of estimation the economic situation. Knowing historical, current and predicting the direction of fluctuations in the economy allows to countering the anticipated bad effects for the country. For this purpose usually some kind of economic indicators are used. In general they are based on two categories of data: qualitative and quantitative. They serve as an input to

analytic methods starting from simple averaging and ending in complex econometric models. Markov-switching time series models have played the prominent role in the analysis of business cycle for decades. In this paper those models were combined with the Viterbi algorithm to get the approximation of the business cycle turning points. Based on the results of the business tendency survey conducted monthly by the Research Institute for Economic Development in Warsaw School of Economics the empirical experiments show that calculated approximations could be far from optimal.

The aim of the paper is to show the way to verify and possibly to improve the accuracy of state estimation. The idea is to take into account not only input time series for the particular moment of time, but also the Viterbi paths computed for the previous periods. Consistency between results for few succeeding months is considered as a successful verification of the latest states, whereas big differences suggest that new data can be a reflection of the recent changes of the economic climate. The proposed solution is to change the length of the input time series and at the same time the beginning of the studied period.

2. MARKOV-SWITCHING MODELS IN THE ANALYSIS OF THE BUSINESS CYCLE

Over time, number of methods of determining business cycle turning points were developed. In all methods some kind of leading indicator is used. It provides information about the current and the future state of the business cycle. The wide range of econometric methods should be mentioned. Many model-based methods (Cleveland 1972, Bell 1984, Wildi and Schips 2005) rely on ARIMA or state-space model-representations of the data generating process (DGP) often used with the filters, usually Hodrick-Prescott (1997) or Christiano-Fitzgerald (2003). Also using a logistic regression has been yielded quite satisfactory results (Lamy 1997, Birchenhall et al. 1999, Chin et al. 2000, Sensier et al. 2004). Finally there is a group of spectral methods based on frequency filtering by using for example Fourier transform (Addo et al. 2012).

In the paper an alternative approach based on Markov-switching model (MS) was chosen. History of using MS models in the analysis of the business cycle is as long as the concept of model itself (Hamilton 1989). These models are used mainly to determine the rates of growth and business cycle turning points. Due to the possibility of choosing a form of an observable and unobservable component, a huge variety of types of models are used and researched (Hamilton 1994, Koskinen and Oeller 2004).

In this paper the Markov-switching model is used. In the remaining part of the paper so-called “switching” refers to the parameters of a normal distribution. To be more exact we focus on hidden Markov model (HMM), which was described in the literature in the 60s of the previous century (for comprehensive description see Cappé et al. 2005), that is before the first articles

by Hamilton. Let us give a brief introduction to the switching-Markov theory, including the basic definition and notation used in the rest of the paper. Let $\{X_t, Y_t\}_{t \geq 0}$ be a discrete stochastic process satisfying the following conditions:

- The unobservable process $\{X_t\}_{t \geq 0}$ is the homogenous Markov chain (MC) with the finite state space S .
- Conditionally on the process $\{X_t\}_{t \geq 0}$ the observations $\{Y_t\}_{t \geq 0}$ are independent, and for each t the conditional distribution of Y_t depends on X_t only.

When Y_t has univariate or multivariate Gaussian distribution, which is a common case in macroeconomic application, we say about normal HMM.

The problem in application of HMM models, is to estimate the state of unobservable MC at a fixed time $n \leq T$ knowing the realization of observable variables in the same period of time. It allows to identify the phases of the business cycle. The usually exploit solutions of the problem (Hamilton 1994) are the smoothed probabilities

$$s_t(i) = P(X_t = i | Y_1 = y_1, Y_2 = y_2, \dots, Y_T = y_T) \quad (1)$$

or the filtered probabilities

$$f_t(i) = P(X_t = i | Y_1 = y_1, Y_2 = y_2, \dots, Y_n = y_n), \quad (2)$$

where $i \in S$. On the basis of those probabilities the estimation of the state of the hidden Markov chain at the moment t is done (Chauvet and Hamilton 2005, Harding and Pagan 2002). In the simplest case as the state the value $\underset{i}{\operatorname{argmax}} w_t(i)$ or $\underset{i}{\operatorname{argmax}} f_t(i)$ is assumed. The states on the path of MC are estimated locally, step by step. Each time the state with the highest probability is chosen. Such approach, especially in case of multispace HMM, could be ineffective. A global decoding is possible, when instead of a single point of time the whole period covered by the analysis is taken under consideration. This most likely path of MC $(x_1^*, x_2^*, \dots, x_T^*) \in S^T$ is called the Viterbi path and is defined as

$$P(X_1 = x_1^*, X_2 = x_2^*, \dots, X_T = x_T^* | Y_1 = y_1, Y_2 = y_2, \dots, Y_T = y_T) = \max_{(x_1, x_2, \dots, x_T) \in S^T} \{P(X_1 = x_1, X_2 = x_2, \dots, X_T = x_T | Y_1 = y_1, Y_2 = y_2, \dots, Y_T = y_T)\} \quad (3)$$

Elements of the Viterbi path are calculated using the Viterbi algorithm (Viterbi 1967), and to estimate the parameters of the HMM the Baum-Welch algorithm (Baum et al. 1970) has been used. The character of both algorithms is deterministic, but the results of Baum-Welch method strongly depend on the initial values and can be far from optimal. In order to increase the chances of finding the optimal solution, the calculation are repeated many times for the same set of data and different initial values. Summarizing, each hidden Markov model thus is defined by the following parameters (Bernardelli 2013):

- k – number of states,
- set of n symbols (alphabet),
- initial probabilities for every state (k parameters),
- transition matrix P , that is matrix of probabilities of transitions between two states (k^2 parameters),
- parameters (means and variances) of normal distribution defining probability of emission of symbol in each state ($2kn$ parameters).

In the paper hidden Markov models with the state space consist of two, three and four states are considered. In case of 2-state HMM the goal is to defragment the time series into two types of periods: these associated with relatively good conditions and those, which are connected rather with the worse situation. To conduct such classification we consider normal HMM with state space of the form $S=\{0,1\}$. The following condition must be satisfied by an observable component Y_t that corresponds to economic time series being under the analysis:

$$Y_n | x_n=0 \sim N(\mu_0, \sigma_0) \quad \text{and} \quad Y_n | x_n=1 \sim N(\mu_1, \sigma_1). \quad (4)$$

We assume that $\mu_0 < \mu_1$. State denoted by 0 corresponds to those points of time, in which the situation in the country is considered as deteriorating, whereas state 1 is associated with an improvement of economic condition. The most likely path of MC that reflects changes in economic climate in the scale of two states may be sometimes too poor to describe the dynamic changes or could be seen as too simplistic.

To extract periods difficult to classify in 0-1 scale, which could be treated as the announcement of changes, we extended state space by adding the intermediate state $\frac{1}{2}$ to the state space. This state should correspond to uncertain periods in economic development. The meaning of states 0 and 1 is the same as in the previously described 2-state model. An extended 3-state model is defined as follows:

$$Y_n | x_n=i \sim N(\mu_i, \sigma_i) \quad (5)$$

for $i=0, \frac{1}{2}, 1$, where $\mu_0 < \mu_{\frac{1}{2}} < \mu_1$. We add an important restriction to the model, which reflects gradual changes in economy. Namely, we assume that $p(0,1) = p(1,0) = 0$. It means, that the path between two outermost states must always lead through the middle state.

To enrich the analysis by allowing more precise classification, the third class of models were introduced in the research. For this purpose we extend the state space of a Markov chain to the four-level scale $S = \{0, \frac{1}{3}, \frac{2}{3}, 1\}$. This allow to distinguish periods clearly good (state 1), worse but still positive (state $\frac{2}{3}$), moderately bad (state $\frac{1}{3}$) and definitely bad (state 0). It is assumed, that the conditions (5) are fulfilled for $i \in S$, where $\mu_0 < \mu_{\frac{1}{3}} < \mu_{\frac{2}{3}} < \mu_1$. Analogously to

the 3-state case, we assume that transitions only between adjacent states are possible, that is

$$p(0,1) = p(1,0) = p\left(0, \frac{2}{3}\right) = p\left(\frac{2}{3}, 0\right) = p\left(\frac{1}{3}, 1\right) = p\left(1, \frac{1}{3}\right) = 0. \quad (6)$$

Of course theoretically the state space could be extended to more than four states. However this cause problems with the state interpretation. What is even more important, is the fact that the more numerous state space the more problems with the estimation of the model parameters and the longer computation time (see next section). Models with more than two states combined with the Viterbi path are rather uncommon in the macroeconomic literature. They were first presented in the article (Bernardelli and Dędyś, 2012), with some improvements in (Bernardelli 2014). In those articles the focus was on finding the optimal Viterbi path by taking into account the historical data to the specified point of time. In this paper an extra feature is added to the procedure, that is the assessment of the states in the path from the viewpoint of not only the input data, but also the Viterbi paths for the historical points of time. The idea behind this approach is based on the observation that the states established for longer period of time should not be changed when new data are available. When historically justified states differs a lot in the new calculated HMM, it probably means that the new data give completely fresh perspective for the changes in business climate. In that case the reliability of the results can be questionable.

3. DATA AND METHOD OF ESTIMATION

As an input the data from the business tendency surveys in industry conducted monthly by the Research Institute for Economic Development in Warsaw School of Economics (RIED) were used. Respondents answer to eight questions about current and eight questions about future situation in enterprise (due to a respondent's knowledge and prediction). Respondents are chosen from the set of all enterprises, including microenterprises. The number of correctly filled questionnaires oscillates around 400. The composition of the sample is more or less constant each month. More precisely approximately 80-90% of entities are the same, the rest are changeable. In econometric methods the non-panel character of the sample must be taken into consideration. In switching Markov models however there are no assumptions concerning this issue. It confirms the advantages of using HMM.

The questionnaires are available on the websites of the RIED¹. Respondents are answering about the situation in current and the following month (respondent's prediction for the next 3-4 months). There are three possible reply options: increase, decrease or no change. The questions are as follows:

Question 1 – level of production

¹ <http://kolegia.sgh.waw.pl/pl/KAE/struktura/IRG/koniunktura/Strony/metody.aspx> [accessed: 10 May, 2015]

- Question 2 – level of orders
- Question 3 – level of export orders
- Question 4 – stocks of finished goods
- Question 5 – prices of goods produced
- Question 6 – level of employment
- Question 7 – financial standing
- Question 8 – general economy situation

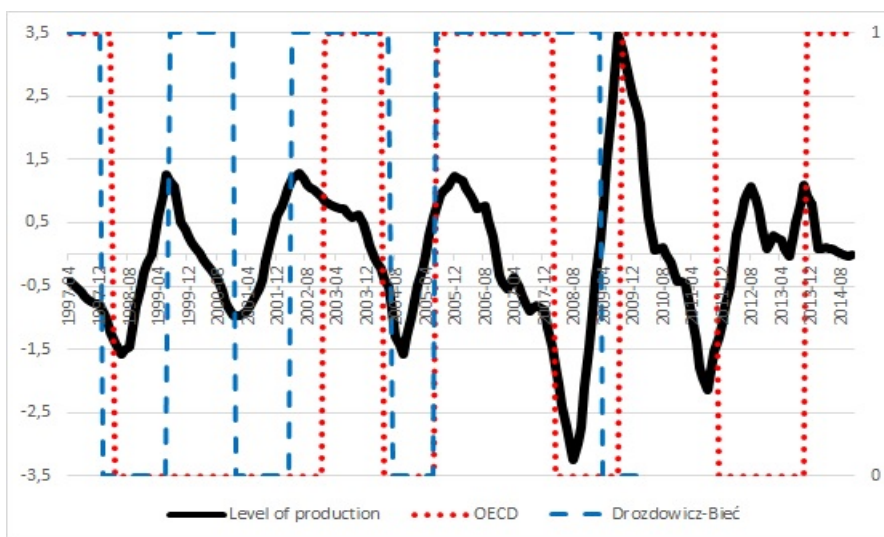


Figure 1. Time series decomposition for the question about level of production (April 1997–November 2014) against the reference time series.

Source: own calculations.

For the calculations data from April 1997 to November 2014 were taken. Only the questions connected with the assessment of the current situation in the enterprise were considered. The input time series were preprocessed by cleaning from seasonal and random fluctuation. For the time series decomposition the procedure STL from the R package was used. STL procedure is an implementation of an algorithm based on local weighted regression method called “loess” (Cleveland 1990). Identification of business cycle turning points is not an easy task, so there are discrepancies between available sources. One of the reference times series is the dating of business cycle turning points given by the Organisation for Economic Co-operation and Development (OECD). For Poland there are also available (only till the first quarter of 2010) datings by M. Drozdowicz-Bieć (Drozdowicz 2008). In the Figure 1 the decomposed time series for the question about level of production (question 1) are presented against the OECD and Drozdowicz-Bieć reference time series.

Based on the precomputed respondents answers to the questions from the business tendency surveys as well as the theory of switching-Markov models, the attempt to identify the turning points of the business cycle turning points for Poland was made. Described in the previous section the Baum-Welch algorithm was used. Unfortunately to get the the reliable results it is necessary to use Monte Carlo simulations. The more unstable calculations, depend usually on the number of states, the more simulations are needed. In the research the initial values were chosen randomly using independent and identically distributed draws from the univariate distribution. The number of draws used for parameters estimation of the time series being under study, varied between 500 and 5 000. The number of repetitions depends on the number of HMM states and the numerical stability of computations. Of course more Monte carlo simulations means the longer time of computations. Parallelization of calculations is possible (Bernardelli 2014). The real challenge is to define the proper optimization criteria, that allow to choose the best (according to those criteria) model. The best estimates of parameters of models are usually chosen by taking into account the following indicators:

- Akaike's information criterion (AIC),
- Bayesian information criterion (BIC),
- the log likelihood value,
- frequency of obtaining certain solution of the Baum-Welch algorithm.

The procedure designed to the identification of business cycle turning points is described in (Bernardelli 2015). The procedure uses historical data to a specific point of time in order to get the most reliable representation of the hidden Markov chain. Whole effort in this case is put to get realistic representation of the Viterbi path till that moment. It is easy to imagine such situation, in which Viterbi paths for a current and a previous month are not consistent due to adding the newest data to the model. Meanwhile, under the premise of gradual changes in the economy it should be not possible. What's more in this case the prognostic usefulness of MS models seems to be questionable.

The idea for improving the accuracy of state estimation is to take into account not only input time series, but also the previously calculated Viterbi path. In case of the successfully verified consistency between results for two succeeding months it is understandable to assume that historical paths, which were stable for some time, should be considered as the correct one. The only thing is changed is the new data, that make parameters of two models and connected with them states on Viterbi path different. The solution worth considering is the change the time interval by deleting the oldest data from months, for which the result have been accepted as known. By comparing the Viterbi paths for various ends of the time interval it can be easier to make the decision about local stability or instability of the economic climate.

4. EMPIRICAL ANALYSIS

The research covers the period from April 1997 to November 2014. As a reference time series mainly the business cycle turning points dated by OECD were used. Due to space limitations there were presented results only for the questions 1 (level of production) and 6 (level of employment). The empirical analysis consists of two parts. In the first part the Viterbi paths were calculated for each month starting from January 2013 to November 2014. To be more precise, the procedure described in the second section was applied to the input data, that cover the period from April 1997 to the particular month from the considered time interval. The calculated paths were compared to each other and to the reference time series.

In Figure 2 the result of applying 2-state HMM to the time series of balances computed for the question about level of production (current situation) is presented. The Viterbi paths for the months from the ends of the interval (January 2013 and November 2014) were compared with the OECD reference time series. Paths for each month were almost identical. They differs only in few points, wherein the time shift is within the range of the 1-2 months. Furthermore each Viterbi path seems to detect all the turning points with an extra peak in relation to the OECD. Although this peak is consistent with the dating given by (Drozdowicz 2008). It is worth to notice that it look like the turning points are caught earlier than the OECD indicator.

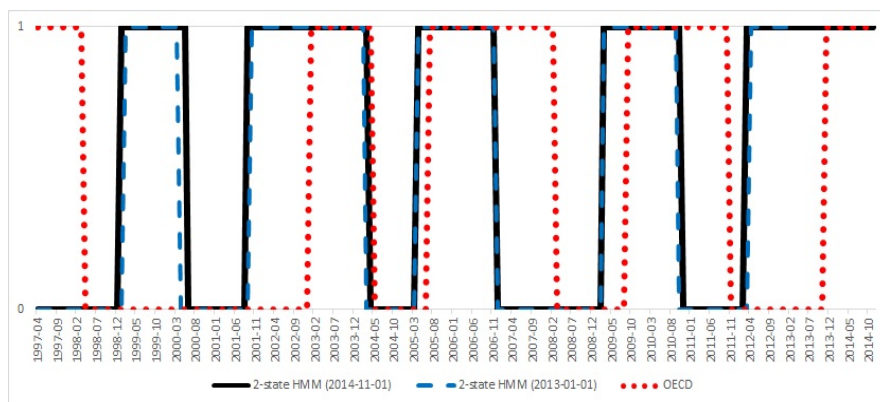


Figure 2. Comparison OECD reference time series with the Viterbi path for 2-state HMM for the question about level of production in the period April 1997- November 2014 and January 2013-November 2014.

Source: own calculations.

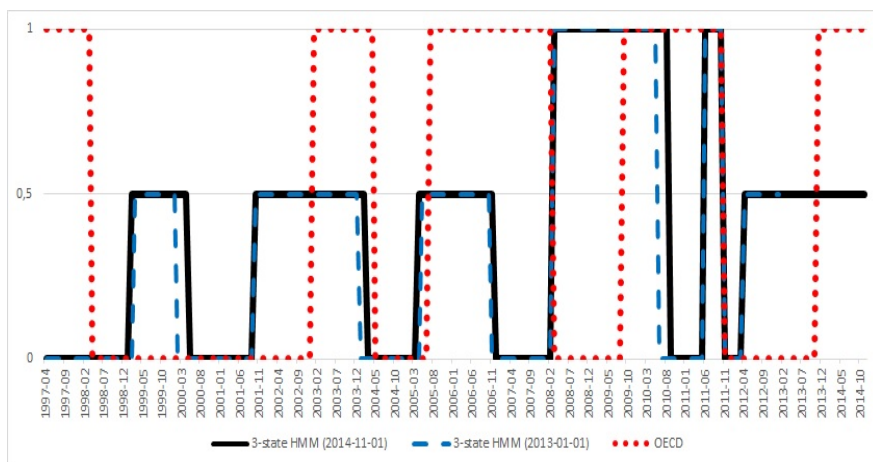


Figure 3. Comparison OECD reference time series with the Viterbi path for 3-state HMM for the question about level of production in the period April 1997–November 2014 and January 2013–November 2014.

Source: own calculations.

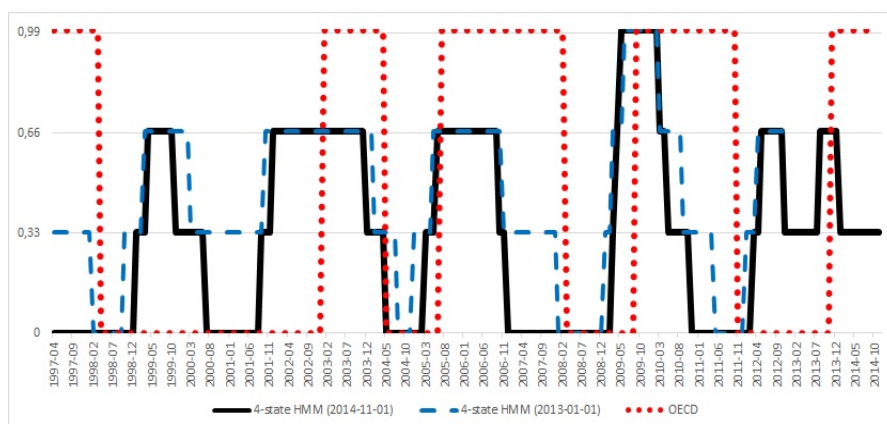


Figure 4. Comparison OECD reference time series with the Viterbi path for 4-state HMM for the question about level of production in the period April 1997–November 2014 and January 2013–November 2014.

Source: own calculations.

Figures 3 and 4 present results for 3-state and 4-state HMM for the question about level of production. Increasing number of states entails greater differences between Viterbi paths from different months. Still during the whole considered period those discrepancies are rather small and the stability of the solutions is visible. From the viewpoint of the comparison to the reference time

series, multistate HMM seems to enrich the analysis. Transitions between states become smoother and the signals of peaks and troughs are strengthened. Especially 4-state model seems to give a quite accurate estimate of the economic situation in the country.

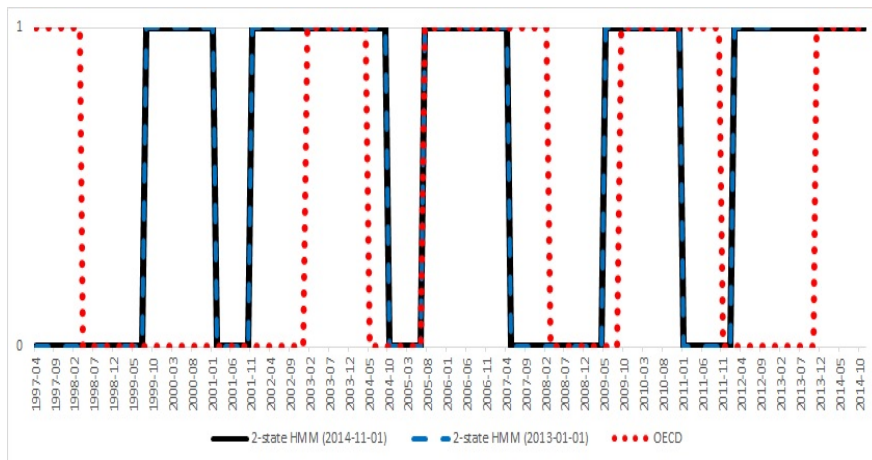


Figure 5. Comparison OECD reference time series with the Viterbi path for 2-state HMM for the question about level of employment in the period April 1997- November 2014 and January 2013-November 2014.

Source: own calculations.

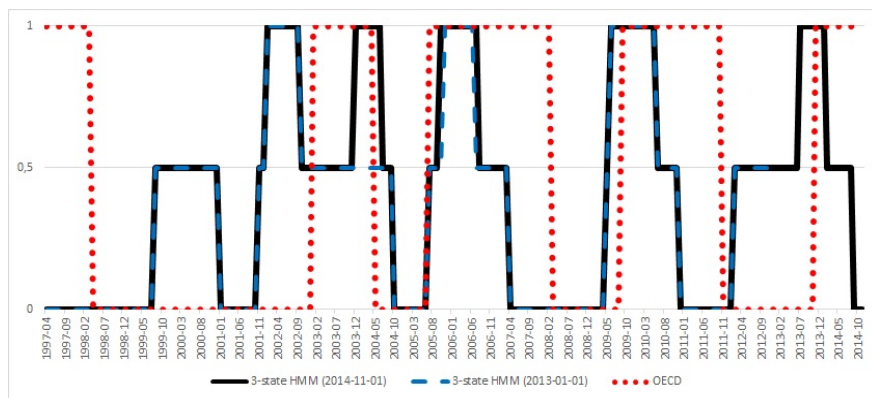


Figure 6. Comparison OECD reference time series with the Viterbi path for 3-state HMM for the question about level of employment in the period April 1997- November 2014 and January 2013-November 2014.

Source: own calculations.

The same observation can be made while analysing the graphs for the question about level of employment (Figures 5-7). Viterbi paths in the entire time interval are highly consistent. In case of the hidden markov model with two states paths are identical. Just as in the case of the question about level of production, all turning points according to the OECD reference time series were identified. One extra peak finds the justification in the datings given by Drozdowicz-Bieć. Turning points seem to be caught in advance.

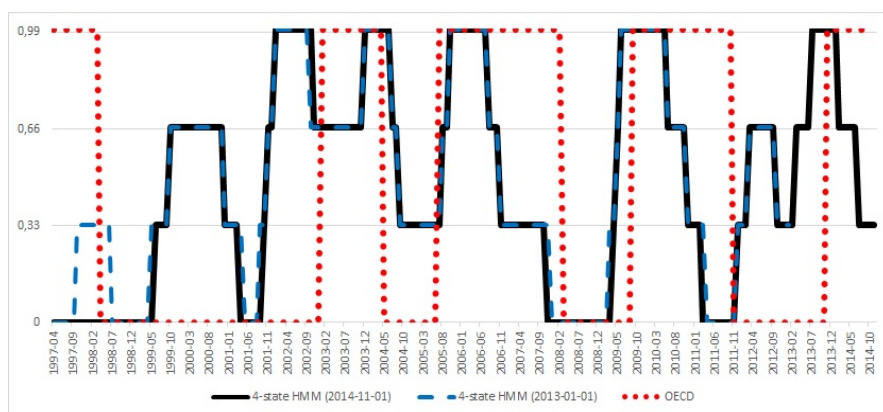


Figure 7. Comparison OECD reference time series with the Viterbi path for 4-state HMM for the question about level of employment in the period April 1997-November 2014 and January 2013-November 2014.

Source: own calculations.

The second part of the empirical analysis was intended to check how changing the length of the input data will influence the shape of the Viterbi path. In the first part of the research the starting point was constant and the ending points were changed. In this part the end is fixed and the beginning is changed. The time interval is shorter, but analogously to the results from the first part we expect calculations to be stable and Viterbi paths consistent with each other. In the research the length of the input data was shortened considerably, from April 1997 to March 2001 (four years). All years between were analysed, but due to the readability of graphs, besides the path for the whole period, only two other Viterbi paths were visualized. One is distant for almost half a year and the second was computed for the shortest time interval.

In Figures 8-10 the graphs with computed Viterbi paths for the level of production are presented. In case of 2-state HMM (Figure 8) and 4-state HMM (Figure 10) states are similar. Although for the shortest input time series one peak is missed, it doesn't affect the latest state estimates and results can be successfully recognized as stable and reliable. This is not the case with 3-state HMM (Figure 9). Historical datings differ depending on the length of the input time interval. Based on one, even optimal, Viterbi path it would be hard to precisely specify the

states of the business cycle. Fortunately knowing the historical pattern (see the description of the first part of the research) it is enough to decide what are the latest (half a year in the example) states. These are consistent with each other, which solves the problem.

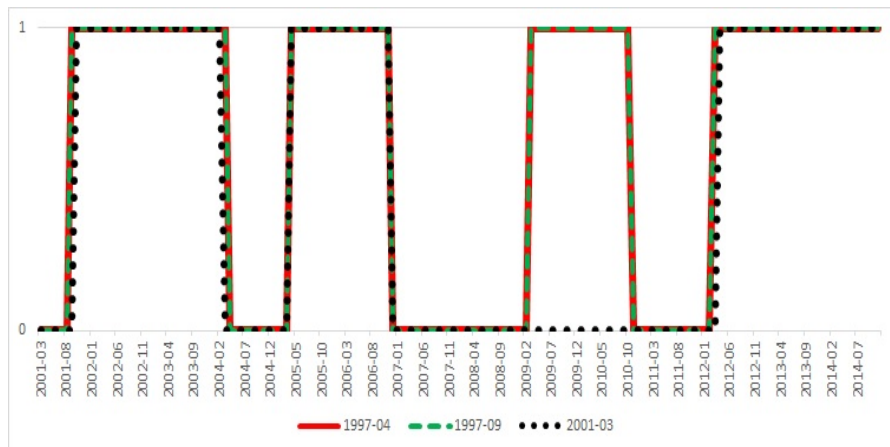


Figure 8. Viterbi path for 2-state HMM for the question about level of production in different periods: April 1997–November 2014, September 1997–November 2014 and January 2001–November 2014.

Source: own calculations.

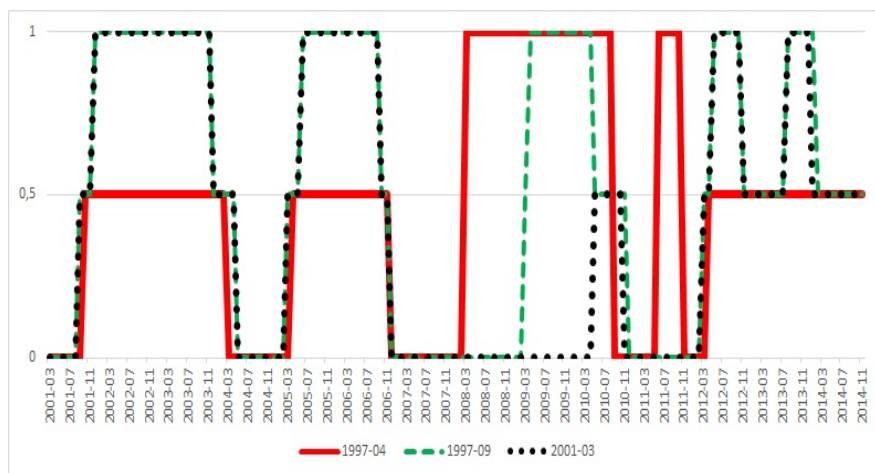


Figure 9. Viterbi path for 3-state HMM for the question about level of production in different periods: April 1997–November 2014, September 1997–November 2014 and January 2001–November 2014.

Source: own calculations.

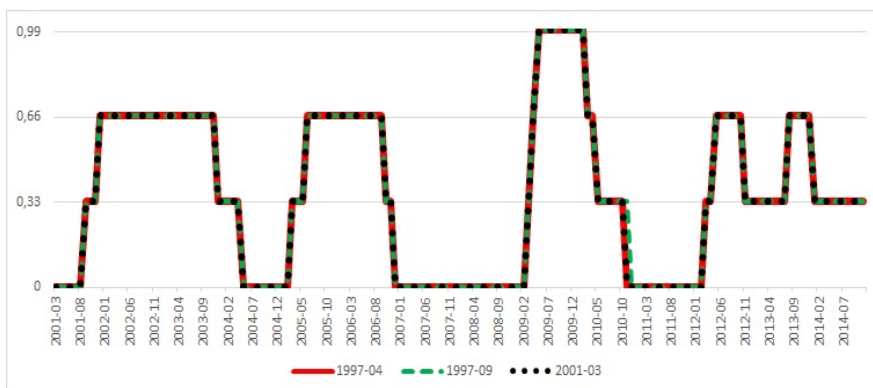


Figure 10. Viterbi path for 4-state HMM for the question about level of production in different periods: April 1997-November 2014, September 1997-November 2014 and January 2001-November 2014.

Source: own calculations.

In Figures 11-13 there are Viterbi paths of the hidden Markov chains for the question about level of employment with two, three and four states respectively. In some parts the differences between calculated states are quite visible. In most cases they correspond with old historical data, which should be established by the moment, for which the computations were done. In case of three states (Figure 12) and four states (Figure 4) similarity in the whole period was surprisingly good. The latest states in case of two states (Figure 11) may be potentially problematic. Depending on the time period the last state is completely different. It is connected with the low sensitivity of 2-state HMM. Multistate models give more information and richer description.

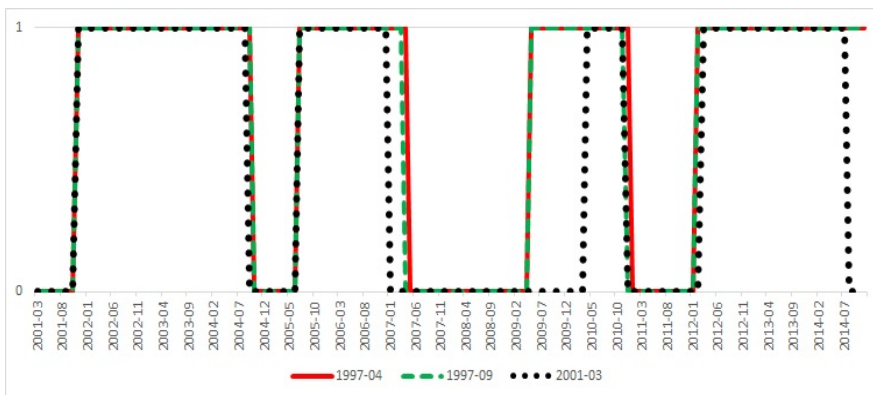


Figure 11. Viterbi path for 2-state HMM for the question about level of employment in different periods: April 1997-November 2014, September 1997-November 2014 and January 2001-November 2014.

Source: own calculations.

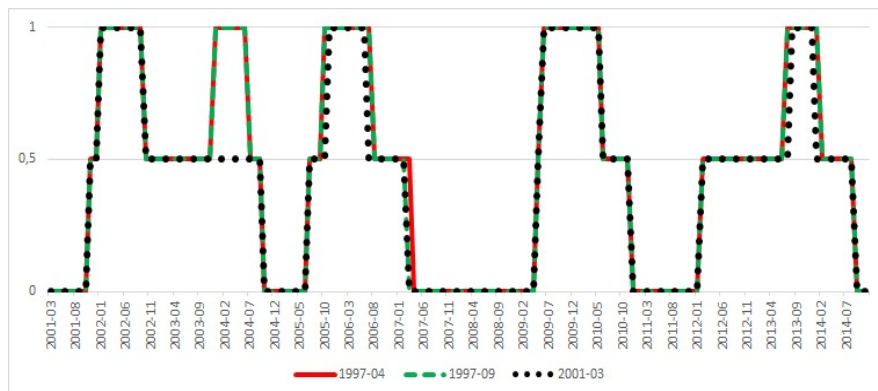


Figure 12. Viterbi path for 3-state HMM for the question about level of employment in different periods: April 1997-November 2014, September 1997-November 2014 and January 2001-November 2014.

Source: own calculations.

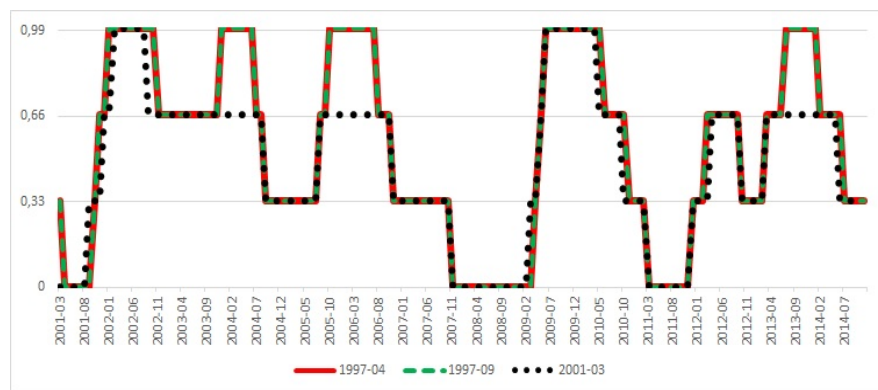


Figure 13. Viterbi path for 4-state HMM for the question about level of employment in different periods: April 1997-November 2014, September 1997-November 2014 and January 2001-November 2014.

Source: own calculations.

5. SUMMARY

This paper introduces the theory of multistate switching Markov models and the concept of the Viterbi path. This methodology is used for identification of turning points of the business cycle in Poland. The aim of the research was to analyze the relationship between Viterbi paths for the different periods of time. A reasonable is to make an assumption that in stable conditions, stages of the economic climate are more or less constant with the limitation to the given time point. Consecutive comparison of the Viterbi paths allows to assess the stability

of the economic situation and established with high probability the states on the Viterbi path.

Research hypothesis were verified by computer simulations. As an input data the business tendency survey in industry conducted monthly by the Research Institute for Economic Development in Warsaw School of Economics were used. Based on the previous research (Bernardelli 2013, 2015) and results of experiments it is justified to draw the following conclusions. The described procedure is an efficient method for the turning points identification. It also allows to analyze the current and historical economic situation. It is considered as a powerful alternative for classical econometric methods. Due to the non-deterministic character of the procedure, as well as the high volatility of input data, analysis in limitation only to one moment of time may not give the full information. Proposed in this paper solution based on holistic approach to the problem seems to expand the possibilities and offer more complete information. Testing the compatibility of Viterbi paths for several different periods could be the key to developing the method of predicting turning points based on switching Markov models.

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ANALYSIS OF PRIVATIZATION IN STACKELBERG MIXED OLIGOPOLY

JEL classification: L13, H42

Abstract

Mixed oligopoly with one welfare-maximizing public and several profit-maximizing private firms exists in many economies. De Fraja and Delbono (1989) have analysed mixed oligopoly taking into account how the public firm behaves vis-à-vis the private firms on the basis of a linear market demand function and symmetric firms. They have found that the social welfare is greater in Stackelberg mixed oligopoly where the public firm acts as a leader than in Cournot mixed oligopoly where all firms simultaneously determine their outputs. A partial public firm tries to maximize the weighted average of the social welfare and its profits. Under some conditions, partial privatization of a public firm leads to greater social welfare than Cournot mixed oligopoly where the public firm is fully public (see Matsumura (1998) for duopoly and Okuguchi (2012) for oligopoly). In this paper we will prove that neither partial nor full privatization of a public firm is optimal in a general Stackelberg mixed oligopoly where the public firm acts as a leader and all private firms as followers.

Key words: public firm, Stackelberg mixed oligopoly, privatization

1. INTRODUCTION

The existence of mixed oligopoly where a public firm and private ones coexist have been observed and analyzed first by Merrill and Schneider (1966), and later by Harris and Wiens (1980), Beato and Mas-Colell (1982), Boes (1986,1991),and Creamer *et al* (1987) among others. De Fraja and Delbono (1989) (see also De Fraja and Delbono,1990) have compared the welfare of mixed oligopoly consisting of one fully public firm and several symmetric private

firms for four possible cases distinguished by the public firm's behavior in relationship to all private firms. They have assumed a linear market demand function for an identical good produced by all firms and the same quadratic cost function for all firms, and found, among other things, that the social welfare is greater in Stackelberg mixed oligopoly where the public firm acts as a leader and all private firms behave as followers than in Cournot (or Nash) mixed oligopoly where the public and private firms simultaneously choose their outputs. Some more recent contributions to Stackelberg mixed oligopoly, especially in relationship with the effects of subsidies to firms, include Poyago-Theotoky(2001), Myles (2002), Cornes and Sepahvand (2003), Fjell and Heywood (2004,2007) and Zikos (2007). Myles (2002) adopts most general approach among them and assumes away a linear market demand function and quadratic cost functions. However, he assumes identical cost functions for all firms, including the public one.

A partial public firm whose manager maximizes the weighted average of the social welfare and its profits have widely been observed in many economies. Under certain conditions, partial privatization of a public firm results in greater social welfare than in Cournot mixed oligopoly where the public firm is under full control of the government. This has been shown by Matsumura(1998) for duopoly and by Okuguchi(2012) for oligopoly. In this paper we will systematically analyze under very general conditions on the market demand and firms' cost functions whether partial or full privatization of a public firm in Stackelberg mixed oligopoly with a public firm as a leader is optimal or not. We will find that neither partial nor full privatization of the public firm is optimal. This non-optimality result coincides with the one earlier obtained by De Fraja and Delbono(1989) for their simple case of a linear market demand function and the identical cost function for all firms. We will be able to derive our result remarkably easily by taking the public firm's rest of the industry output as an analytical strategic variable, as it is uniquely related to its own output as shown below.

Before concluding this introductory section, we would like to point out the pioneering paper on Stackelberg oligopoly with only private firms by Sherali *et al.*(1983) from the algorithmic point of view of computing the Stackelberg equilibrium.

2. MODEL AND ANALYSIS

Let there be one public firm (firm 0) and n asymmetric profit-maximizing private firms. Let $\pi_i, i = 0, 1, \dots, n$, be firm i 's profits, W be the social welfare as the sum of firm's profits and the consumers' surplus, and $U_0 \equiv \alpha W + (1 - \alpha)\pi_0$ be the partial public firm's objective function, where the parameter $\alpha \in [0, 1]$ is the weight the government attaches to the social welfare.

If $\alpha = 0$, the public firm becomes a private profit-maximizing firm and if $\alpha = 1$, it is a fully public firm. Furthermore, let $X \equiv \sum_{i=0}^n x_i$ be the industry total output, where x_i is firm i 's output, $p = p(X)$ the inverse market demand function, where p is the price of a homogeneous good of the industry and $p' < 0$ for X such that $p > 0$, and $C_i(x_i)$ be firm i 's cost function. Then, by definition of the social welfare W ,

$$W \equiv \int_0^X p(x) dx - \sum_{i=0}^n C_i(x_i). \quad (1)$$

The firm i 's profit function is

$$\pi_i = x_i p\left(\sum_{j=0}^n x_j\right) - C_i(x_i), i = 0, 1, 2, \dots, n. \quad (2)$$

We now formulate Stackelberg mixed oligopoly with a partial public firm as a leader and all private firms as followers. The public firm's objective function is U_0 defined above and equals to the weighted average of the social welfare and its profits. We rewrite the firm's profit function as

$$\pi_i = x_i p(x_0 + X_{-0}) - C_i(x_i), i = 0, 1, \dots, n, \quad (3)$$

where an analytical strategic variable $X_{-0} \equiv \sum_{i=1}^n x_i$ is the rest of the industry output for the public firm. De Fraja and Delbono (1989) have assumed a linear market demand function for the good and an identical quadratic cost function for all firms, while Beato and Mas-Colell (1982) have used a linear market demand function and general cost functions for mixed duopolists. We will, however, assume general demand and cost functions which are assumed to satisfy:

Assumption 1: $C_i' > 0, i = 0, 1, \dots, n, p' < C_i'', i = 1, 2, \dots, n$.

Assumption 2: $p' + x_i p'' < 0, i = 1, 2, \dots, n$.

Now let the leader's output x_0 be given. Then private firm i maximizes its profit with respect to its own output on the basis of the Cournot behavioristic assumption regarding its rival's outputs. Hence, its first order condition for profit maximization.

$$\frac{\partial \pi_i}{\partial x_i} = p(x_0 + X_{-0}) + x_i p'(x_0 + X_{-0}) - C'_i(x_i) = 0, i = 1, 2, \dots, n, \quad (4)$$

where we have assumed an interior maximum. The Assumption 2 implies that any two private firm's outputs are strategic substitutes each other. Note that the second order condition holds under Assumptions 1 and 2. We note in passing that the equation (4) shows that the private firms are playing an aggregative game among themselves (see Okuguchi and Yamazaki(2014)).

Solving (4) with respect to x_i as a function of $x_0 + X_{-0}$, we have

$$x_i \equiv \varphi^i(x_0 + X_{-0}), i = 1, 2, \dots, n, \quad (5)$$

where

$$\frac{d\varphi^i}{dX} = \frac{\partial \varphi^i}{\partial x_0} = \frac{\partial \varphi^i}{\partial X_{-0}} = -\frac{p' + x_i p''}{p' - C''_i} < 0, i = 1, 2, \dots, n. \quad (6)$$

Note that (5) is not the reaction function in the traditional sense of the word since φ^i contains x_i as one of its arguments because of $X_{-0} \equiv \sum_{i=1}^n x_i$.

By definition, the rest of the industry output for the public firm is

$$X_{-0} = \sum_{i=1}^n \varphi^i(x_0 + X_{-0}) \equiv \varphi^{-0}(x_0 + X_{-0}). \quad (7)$$

Solving (7) with respect to the leader' output, we have

$$x_0 \equiv \Psi(X_{-0}), \quad (8)$$

where in view of (6),

$$\Psi'(X_{-0}) = \frac{dx_0}{dX_{-0}} = \frac{1}{\sum_{i=1}^n \frac{d\varphi^i}{dX}} - 1 < -1. \quad (9)$$

We can give an diagrammatic derivation of (8) as follows. If the public firm's output is x_0^f , the solution of (7) corresponds to the intersection E' of a downward-sloping curve for $\varphi^{-0}(x_0 + X_{-0})$ and the 45 degree line originating from the origin as shown in the Figure1 below.

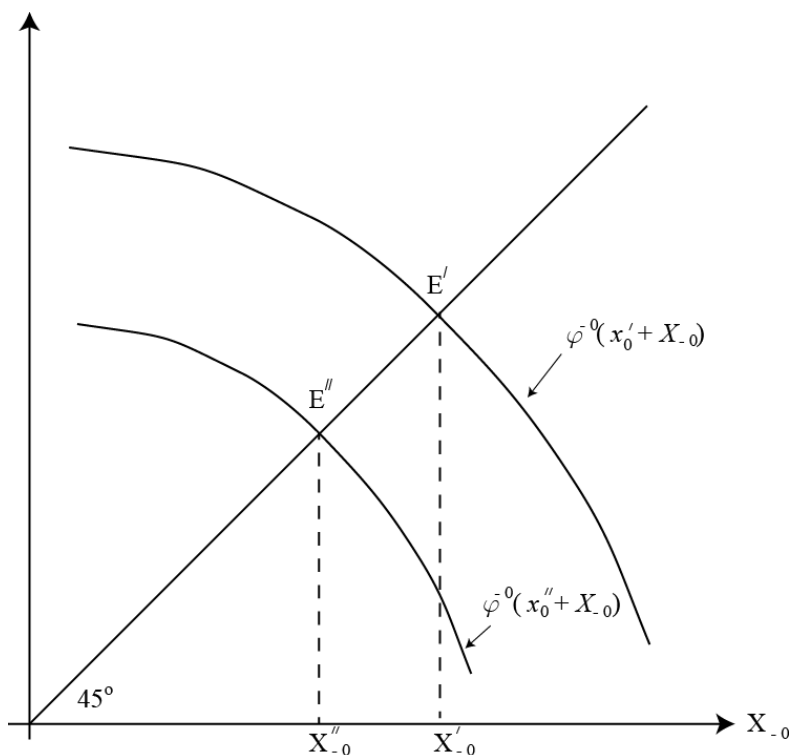


Figure 1 The solution of (7)

If the public firm's output increases to x''_0 , the curve shift downwards, and the new intersection becomes E'' , hence $X''_{-0} < X'_{-0}$ for $x''_0 < x'_0$.

The public firm's objective function now reads

$$\begin{aligned}
 U_0 &= \alpha \left\{ \int_0^{x_0 + X_{-0}} p(x) dx - \sum_{i=0}^n C_i(x_i) \right\} + (1 - \alpha) \{ x_0 p(x_0 + X_{-0}) - C_0(x_0) \} \\
 &= \alpha \left\{ \int_0^{X_{-0} + \Psi(X_{-0})} p(x) dx - C_0(\Psi(X_{-0})) - \sum_{i=1}^n C_i(\varphi^i(X_{-0} + \Psi(X_{-0}))) \right\} + \\
 &(1 - \alpha) \{ \Psi(X_{-0}) p(X_{-0} + \Psi(X_{-0})) - C_0(\Psi(x_{-0})) \} \quad , \quad (10)
 \end{aligned}$$

where we have taken into account (5) and (8). Given α , the manager of the public firm maximizes its objective function U_0 with respect to its output x_0 , that is, with respect to its rest of the industry output X_{-0} in light of (8). The first order condition for maximization of U_0 with respect to X_{-0} is rewritten as

$$V(X_{-0}, \alpha) \equiv \alpha A(X_{-0}) + (1 - \alpha)B(X_{-0}) = 0 \tag{11}$$

where

$$A(X_{-0}) \equiv \left\{ p(\beta(X_{-0})) - \sum_{i=1}^n C'_i(\beta(X_{-0}))\phi^i(\beta(X_{-0})) \right\} \times \\ (1 + \Psi'(X_{-0})) - C'_0(\Psi(X_{-0}))\Psi'(X_{-0}), \\ B(X_{-0}) \equiv p(\beta(X_{-0}))\Psi'(X_{-0}) + \Psi(X_{-0})p'(X_{-0})(1 + \Psi'(X_{-0})) \\ - C'_0(\Psi(X_{-0}))\Psi'(X_{-0}),$$

$$\beta(X_{-0}) \equiv X_{-0} + \Psi(X_{-0}).$$

We introduce here the following second order condition.

Assumption 3: $\frac{\partial^2 U_0}{\partial X_{-0}^2} < 0.$

In order to show the validity of this assumption, consider the following case in which the market demand function is linear, the public firm's cost function is quadratic and all private firm's cost functions are linear and identical.

$$P = a - bX, C_0 = c_0 x_0^2 / 2, C_i(x_i) = cx_i, i = 1, 2, \dots, n. \tag{12}$$

A simple calculation yields

$$A(X_{-0}) = -b \left\{ b + c_0(n+1)^2 \right\} X_{-0} + n(n+1) \left\{ c_0(a-c) - bc \right\} / \frac{\geq 0}{bn^2 <} \tag{13}$$

$$B(X_{-0}) = -b(n+1) \left\{ 2b + c_0(n+1) \right\} X_{-0} + C / \frac{\geq 0}{bn^2 <} \tag{14}$$

$$A'(X_{-0}) = - \left\{ b + c_0(n+1)^2 \right\} / n^2 < 0, \tag{15}$$

$$B'(X_{-0}) = -(n+1) \left\{ 2b + c_0(n+1) \right\} / n^2 < 0, \tag{16}$$

$$C \equiv n \{ ab + c_0(a-c)(n+1) - (n+2)bc \}. \tag{17}$$

In view of Inequalities (15) and (16), we know that the second order condition is satisfied for the model given by (12).

Under the Assumption 3, we solve (11) with respect to X_{-0} as a function of the parameter α .

$$X_{-0} \equiv X_{-0}(\alpha), \tag{18}$$

where we have in view of the Assumption 3

$$\frac{dX_{-0}}{d\alpha} = \frac{B}{\alpha \frac{\partial^2 U_0}{\partial X_{-0}^2}} < 0 \text{ according as } B > 0. \tag{19}$$

Furthermore, we have in light of (9) and (18),

$$\frac{dX}{d\alpha} = (1 + \Psi') \frac{dX_{-0}}{d\alpha} > 0 \text{ according as } B > 0. \tag{20}$$

Since the government's objective function is

$$W(\alpha) = \int_0^{X(\alpha)} p(x)dx - C_0(\Psi(X_{-0})) - \sum_{i=1}^n C_i(\varphi^i(X(\alpha))), \tag{21}$$

differentiation of it with respect to α yields

$$\begin{aligned} \frac{dW}{d\alpha} &= \left\{ (p - \sum_{i=1}^n C_i' \varphi^i) (1 + \Psi') - C_0' \Psi' \right\} \frac{dX_{-0}}{d\alpha} \\ &= \frac{(\alpha - 1)B}{\alpha} \frac{dX_{-0}}{d\alpha} > 0 \text{ for } B \neq 0. \end{aligned} \tag{22}$$

This proves that if $B \neq 0$, the social welfare is maximized for $\alpha = 1$, that is, the public firm should be neither partially nor fully privatized.

3. CONCLUSION

In this paper we have analyzed whether partial or full privatization of a public firm coexisting with several profit-maximizing private firms is optimal in the sense of social welfare maximization. We have given the role of leadership to the public firm which is assumed to be maximizing its objective function as the weighted sum of the social welfare and its profits, and the followership role to all private firms. We have found without assuming a linear market demand function and quadratic cost functions for all firms that neither partial nor full privatization of the public firm is optimal. This finding is in sharp contrast with that of the optimality of partial privatization of the public firm in Cournot mixed oligopoly where all firms are assumed to act as Cournot oligopolists.

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MONETARY ECONOMICS

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FOUR CURRENCIES OUTSIDE THE EUROZONE

JEL classification: F31

Abstract

In the European Union only a few countries have remained outside the eurozone. Among these countries with independent monetary policies few pursue a floating exchange regime: the Czech Republic, Hungary, Poland and Romania (IMF, 2013). It is worth examining whether there is a cointegrating relationship between underlying economic fundamentals and the real and nominal exchange rate of these countries against the euro. The paper points out that it is difficult to prove the existence of any such relationship: on the basis of data between 2001-2014 making forecasts of the paths of equilibrium exchange rates is hampered by the lack of an adequate model, the short time series and the strong volatility of these currencies, especially the Hungarian forint and the Romanian leu. An alternative approach to estimate equilibrium exchange rates is the unobserved components model proposed by Chen and MacDonald (2010) which does not necessitate the existence of a cointegrating relationship for defining permanent equilibrium exchange rates. As Dick et al. (2015) reveals good exchange rate estimates rely on the forecaster's ability to understand the relation between fundamentals and the exchange rates mostly in times when exchange rate more strongly deviate from their PPP value. Therefore, applying more approaches for exchange rate analysis helps us better observe this relationship.

Key words: exchange estimates, cointegration, eurozone membership

1. INTRODUCTION

After all the Baltic countries have joined the eurozone and Slovenia and Slovakia chose the currency zone within five years of European Union membership currently six Eastern members of the EU are still outside the eurozone. The Czech Republic, Hungary, Poland and Romania today maintain a floating exchange rate and pursue inflation targeting as monetary policy, whereas Croatia has targeted the exchange rate in the frames of a less flexible exchange rate system in the last fifteen years and Bulgaria conducts its monetary and exchange policy under a currency board regime. As floating rates are naturally more set out to market forces, for an examination of how domestic currencies move against the euro countries with flexible exchange rates are the most adequate sample. In the current analysis the exchange rates of the Czech Republic, Hungary, Poland and Romania are estimated with the help of macroeconomic fundamentals in the period between 2000 and 2014.

The Czech Republic shifted to floating exchange regime as early as in May 1997 and since then the monetary authority has not announced explicit exchange rate bands, though it has strongly been intervening in the foreign currency markets lately to prevent the koruna from notable appreciation. The aim is to maintain the exchange rate of the koruna against the euro close to CZK 27/EUR in accordance with the Bank Board's decision. Since the end of 2013 the Czech National Bank therefore uses the exchange rate as monetary policy instrument and intervenes to keep its "one-sided commitment" (only appreciation is avoided) to the exchange rate. Hungary introduced a fixed exchange rate system with a $\pm 15\%$ band in 2001 and irrevocably switched over to a floating system at the beginning of 2008. From time to time the Central Bank of Hungary also intervenes but it does not follow any declared explicit or implicit target exchange rate. Poland introduced a floating regime in spring 2000 after a five year period of crawling band system. Romania was gradually converging to managed float by applying different intermediate systems until 2004. Romania also manages external shocks by currency intervention if economic conditions make it necessary. Taking account of the introduction of flexible exchange rates at the beginning of the years 2000 the fifteen year period promises to be adequate for examining the influence of market forces on the currency exchange.

2. BACKGROUND

In an equation based on balance of payments equilibrium MacDonald (2000) suggests that the productivity differential (explaining the trade balance), the interest differential (determining capital flows) of the two countries whose currency is compared and the net foreign assets are a good starting point of any equilibrium exchange estimate. To explain the deviation of the exchange rate from its long-run path (marked by the purchasing power parity or in case of comparing a less developed and a more developed country by the Balassa-

Samuelson effect or by simple different productivity dynamics) a lot of models have been developed in the last some twenty years. The group of those which do not have a normative equilibrium framework but use macroeconomic variables which might well explain the exchange rate are called behavioural equilibrium exchange rate theories.

To gauge the impact of the Balassa-Samuelson effect and the misalignment of the currency from its equilibrium path a lot of research was conducted in the Central and Eastern European countries with the help of the behavioural equilibrium exchange rate approach and other estimation methods. Borowski et al. (2003) used fundamental and behavioural equilibrium exchange calculations to define the equilibrium level of the Polish zloty and forecast the expected real appreciation of the Polish currency until the introduction of the euro. Beza-Bojanowska (2009) carried out behavioural equilibrium exchange rate and permanent exchange rate analysis in which terms of trade, Balassa-Samuelson-effect, foreign reserves, risk premium and the long-term differential of interest rates and budgetary deficit turned out to have significant explanatory power. Égert et al. (2005) question the Balassa-Samuelson effect but conclude that dual (tradable and non-tradable) productivity differential – similarly to terms of trade and public consumption with less explanatory power – cause currency appreciation in the CEECs. They found that some variables such as openness and public spending can have contradictory effects on exchange rates. Dumitrescu and Dedu (2009) made a behavioural equilibrium exchange estimate by approximating the real effective exchange rate of the Romanian currency with productivity differential in terms of the non-tradable and tradable sector, total consumption, net foreign assets and degree of openness. The model building was based on both internal and external macroeconomic equilibrium. Komárek and Moti (2012) estimate the Czech Koruna exchange rate (both nominal and real) with the help of productivity differential, real investment to GDP, net foreign assets and net export and find that the strong appreciation of the Czech Koruna against the euro came to a halt in 2009 as a consequence of slowing productivity dynamics in the Czech Republic.

In the following we use the model and methodology suggested by MacDonald (2000) and Chen and MacDonald (2010) – drawing on the results of the Central European research papers – with a slight modification: instead of using the net foreign asset variable, we apply the debt-to-GDP ratio as one of the variables influencing investors' motive to purchase assets in an emerging economy. Public debt has become a very important benchmark variable of countries since the financial crisis which underpins the selection of this variable. The sharply increasing public debt in Central Europe was often financed from foreign currency credit and accompanied by the accumulation of foreign currency reserves which is another reason for including this variable. In addition, Vámos (2014) used an equation including public-debt-to-GDP to regress the Hungarian forint and Polish zloty nominal exchange rate and Vámos (2013) also applied a model relying on productivity dynamics, interest differentials and public debt for

a panel regression encompassing 15 Central and South Eastern European countries. The research thus builds upon previous empirical findings and discusses whether the same model can be applied for countries at different levels of economic development, openness and debt characteristics.

3. THE VARIABLES OF THE MODEL

We use the quarterly time series of the nominal and CPI based real domestic/EUR exchange rate of the four countries covered in this paper and investigate their relationship with the productivity (y/emp), interest differential ($i - i^*$) against the eurozone, public debt-to-GDP ($debt$) and terms of trade (tot). The data used for estimations is quarterly and collected from the Eurostat and Ameco databases except the terms of trade indices which are annual OECD data. The variables are indexed to 2005 (as 100%) and logarithmised before testing their statistical characteristics.

The basic equation we consider to be adequate for approximating the nominal and real exchange rates of the Czech Koruna, Hungarian Forint, Polish zloty and Romanian leu is the following:

$$s_t = \alpha_0 + \alpha_1(s_{t-1}) + \beta_1(y / emp_t) - \beta_2(y / emp_t^*) + \gamma_1(i_t - i_t^*) + \gamma_2(debt_t) + \gamma_3(tot_t) + u_t \tag{1}$$

As we use the euro exchange as units of the domestic currency (depreciation means higher values) and the real exchange rate in contrast showing an increase when appreciating, the expected coefficients of the variables will be opposite for the estimation of the nominal and real variables. (Therefore we depicted the change in nominal exchange rates in revers order in the diagrams.)

First we start by comparing the path of the real and nominal exchange rates and then depicting the variables one by one with both.

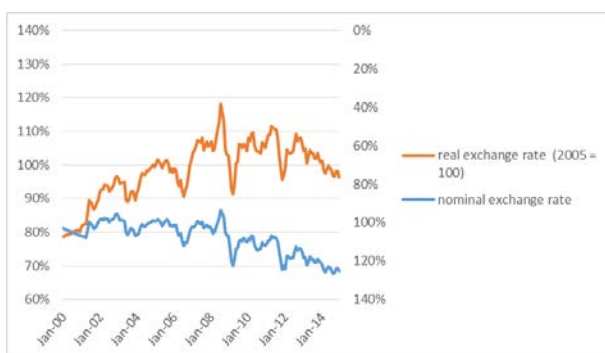


Figure 1 Nominal and real exchange rate (2000-2014) in Hungary



Figure 2 Real exchange rate and productivity in Hungary



Figure 3 Interest differential and real exchange rates in Hungary

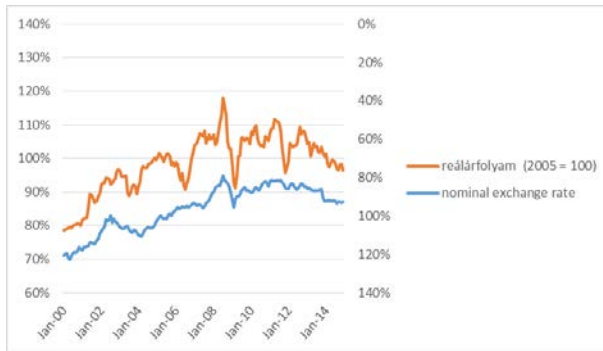


Figure 4 Nominal and real exchange rate (2000-2014) in the Czech Republic

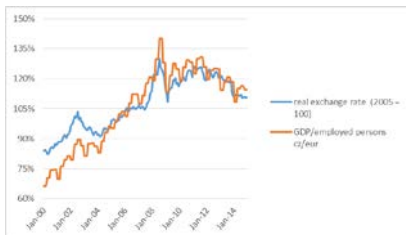


Figure 5 Real exchange rate and productivity in the Czech Republic



Figure 6 Interest differential and real exchange rates in the Czech Republic



Figure 7 Nominal and real exchange rate (2000-2014) in Poland

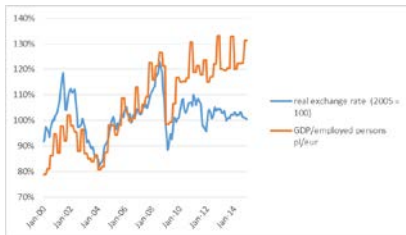


Figure 8 Real exchange rate and productivity in Poland

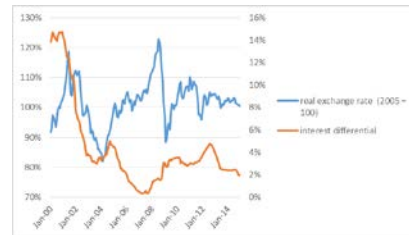


Figure 9 Interest differential and real exchange rates in Poland

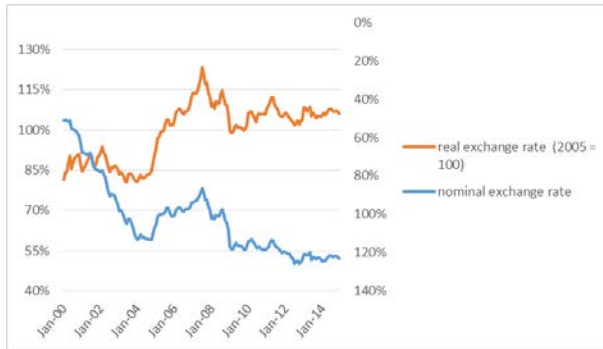


Figure 7 Nominal and real exchange rate (2000-2014) in Romania

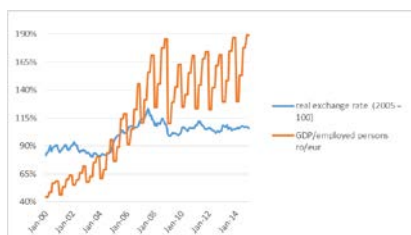


Figure 11 Real exchange rate and productivity in the Czech Republic

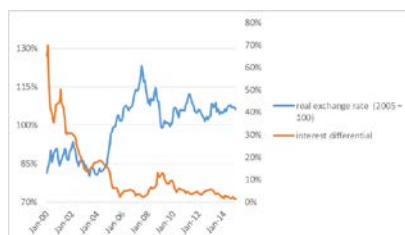


Figure 12 Interest differential and real exchange rates in the Czech Republic

In the case of three countries out of the four nominal and real exchange rates follow very similar paths. In Romania, however, the two variables start with a very different trend probably due to the more rigid exchange regime in Romania at the beginning of the 2000s. Whereas productivity and real exchange rate move strongly together there is no evident relationship (either positive or negative) between interest differentials and real exchange rates (the same holds for the debt-to-GDP ratio). The difference in interest rates between 2000 and 2002 was more significant in all the four countries. The continuously decreasing difference (except Romania) can be well observed in three countries. Between 2002 and 2004 the interest differentials moved together with the real exchange rate, similar tendency evolved in the period after 2012 as can be seen in all the four diagrams. It can be presumed that behind the strong comovement the investors risk avoiding behaviour played a role beside the low interest level. In the interim period the interest differential and the real exchange show opposite cyclicity which is an expected long term phenomenon.

4. TESTING DATA FOR UNIT ROOT AND COINTEGRATION

To reveal possible stationarity the logarithmised variables were submit to ADF and KPSS unit-root tests. (See results in Appendix.) Most of the variables seem to follow an I(1) process but some variables are likely to be stationary before differencing them (e.g. the nominal exchange rate in Romania and the interest differential in the Czech Republic, Poland and Romania on the basis of the ADF test, real productivity in the eurozone (with trend), nominal and real exchange rate in Poland in KPSS test statistics).

The data are suitable for cointegration tests but first we checked the relationship between the exchange rates and the explanatory variables with the help of simple OLS regression estimates. In the case of all countries the regression estimates pointed at a strong influence of regressors on the dependent variable, in the case of Hungary the change of the interest rate differential, in the Czech Republic the one-period lagged value of the same proved to be statistically significant. The debt-to-

GDP variable had almost nil explanatory power in the Czech Republic and mostly the terms of trade of the domestic economy proved to be less significant than the same eurozone statistics for both the nominal and real exchange rate estimate in the case of all the countries under examination. (It is interesting to note that the interest differentials usually contributed to the depreciation of the currency at time t and to appreciation at $t-1$).

The cointegration test results proved to be significant only in the case of Poland especially for the nominal exchange rate as dependent variable. The coefficients also show economically justifiable relations. The Czech data are also close to be significant but the coefficients contradict the economic rationale and the regression results. For Hungary and Romania the two cointegration show paradox results for the real exchange rate estimates, the one supports the existence of cointegration, the other refuses the same and the signs of the coefficients cannot be interpreted.

Table 1
Engel-Granger and Johansen cointegration tests on nominal exchange rates
(quarterly time series, number of lags=2)

	Poland		Czech Republic	
<i>Engel-Granger</i>	test st.	p value	test st.	p value
constant	-4,39195	0,0001	-2,49483	0,1167
<i>Johansen</i>	test st.	p value	test st.	p value
rank=1	60,329	0,6198	39,172	0,3381
estimated coefficients	normalized beta			
nominal exchange rate	1		1	
productivity diff.	-0,73213		0,47644	
government debt	-0,60614		0,18173	
interest diff.	-0,89437		-6,1612	
terms of trade-domestic	-5,7449		-	
terms of trade_eur	3,1882		0,019325	

Table 2
Engel-Granger and Johansen cointegration tests on real exchange rates (quarterly
time series, number of lags=2)

	Hungary		Romania	
<i>Engel-Granger</i>	test st.	p value	test st.	p value
constant	-4,79916	0,005903	-3,43088	0,3589
<i>Johansen</i>	test st.	p value	test st.	p value
rank=1	22,033	0,3461	39,172	0,6620
estimated coefficients	normalized beta			
nominal exchange rate	1		1	
productivity diff.	-0,56092		-3,0203	
government debt	-		-0,093186	
interest diff.	-0,53595		-6,1612	
terms of trade_eur	1,1147		0,019325	

The tested model does not seem to be capable of forecasting equilibrium exchange rates in a simple cointegration framework, and a much more refined statistical approach is needed to assess the long-term equilibrium values of the four currencies. In international literature it is an often raised problem that government expenditure and debt-to-GDP ratio as well as interest differentials have a different impact in the short and the long run. (Public debt can increase productivity if it finances fixed capital investment but can crowd out private investment and increase CDS premia at a time). Chen and MacDonald (2010) therefore suggest the application of unobserved component model and separate the permanent and temporary effects of the same variables. In addition to the methodological problems it is also to be taken into consideration that Romania and the Czech Republic often use foreign currency intervention which might distort the effect of economic fundamentals on the exchange rate.

6. CONCLUSIONS AND RECOMMENDATIONS

In the case of a cointegrating relationship of strongly related economic fundamentals it is possible to separate permanent and temporary components of exchange fluctuations and detect the presence of currency misalignment. However, Central European currencies undergo great fluctuations which are often counterbalanced by currency market interventions. In the current study encompassing a fifteen-year time interval no cointegrating relationship could be unequivocally established in the case of three out of four Central European currencies, therefore the adoption of an unobserved component framework and the use of dummies for periods with extreme fluctuations and central bank intervention could help further develop the model to make it capable of forecasting equilibrium exchange rates.

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APPENDIX

ADF tests

Hungary

test with constant	level			diff		
	estimated value of (a - 1)	test statistic: tau_c(1)	asymptotic p-value	estimated value of (a - 1)	test statistic: tau_c(1)	asymptotic p-value
nominal exchange rate	-0,105567	-1,55235	0,5004	-1,64834	-6,39862	1,24E-08
GDP/employed persons_hu	-0,142191	-2,68039	0,07742	-2,662	-10,6611	2,43E-21
GDP/employed persons_eur	-0,0395634	-1,4536	0,5573	-2,96378	-12,7637	3,468E-28
public debt/GDP	-0,0273035	-0,87461	0,7896	-1,0283	-7,65896	1,18E-08
interest differential	-0,184684	-2,43835	0,1312	-0,839632	-6,37863	9,01E-07
terms of trade hu	-0,0430725	-1,10574	0,708	-1,00529	-7,52298	1,84E-08
terms of trade eur	-0,0836567	-1,55005	0,5015	-1,00069	-7,4885	2,058E-08
real exchange rate (2005 = 100)	-0,167632	-2,82125	0,06141	-1,24826	-6,71961	1,85E-09
real productivity hu	-0,185608	-2,31292	0,1679	-3,59035	-21,7849	4,34E-50
real productivity eur	-0,105315	-1,34872	0,6089	-2,34435	-8,95792	6,447E-16
GDP/employed persons hu/eur						
real productivity hu/eur						

Czech Republic

test with constant	level			diff		
	estimated value of (a - 1)	test statistic: tau_c(1)	asymptotic p-value	estimated value of (a - 1)	test statistic: tau_c(1)	asymptotic p-value
nominal exchange rate	-0,059447	-1,98417	0,2929	-0,967015	-7,25422	4,46E-08
GDP/employed persons cz	-0,0666037	-2,25522	0,1869	-2,37521	-9,13926	1,76E-16
GDP/employed persons_eur	-0,0395634	-1,4536	0,5573	-2,96378	-12,7637	3,47E-28
public debt/GDP	-0,0467494	-2,57574	0,09804	-0,474435	2,90596	0,04465
interest differential	-0,195154	-2,77273	0,06223	-0,818422	-6,46263	6,72E-07
terms of trade cz	-0,119455	-2,18112	0,2152	-1,00453	-7,51732	1,87E-08
terms of trade eur	-0,0836567	-1,55005	0,5015	-1,00069	-7,4885	2,06E-08
real exchange rate (2005 = 100)	-0,0581685	-1,97736	0,2958	-0,925455	-6,94994	1,25E-07
real productivity cz	-0,103199	-1,81494	0,3736	-3,38676	-17,0422	7,24E-41
real productivity eur	-0,105315	-1,34872	0,6089	-2,34435	-8,95792	6,45E-16
GDP/employed persons cz/eur	-0,0763618	-2,51849	0,111	-1,56448	-9,41243	2,46E-17
real productivity cz/eur	-0,0920689	-1,71237	0,425	-3,4804	-18,823	4,45E-45

Poland

test with constant	level			diff		
	estimated value of (a - 1)	test statistic: tau_c(1)	asymptotic p-value	estimated value of (a - 1)	test statistic: tau_c(1)	asymptotic p-value
nominal exchange rate	-0,227106	-2,68967	0,08184	-0,970341	-7,33478	3,41E-08
GDP/employed persons pl	-0,0725415	-1,44747	0,5604	-2,28987	-9,00576	4,58E-16
GDP/employed persons_eur	-0,0395634	-1,4536	0,5573	-2,96378	-12,7637	3,468E-28
public debt/GDP	-0,0587048	-1,56548	0,4937	-0,932235	-6,97824	1,13E-07
interest differential	-0,0855486	-4,39195	0,0001	-0,319108	-2,65336	0,08238
terms of trade pl	-0,0656937	-1,39638	0,5781	-1,01378	-7,58715	1,49E-08
terms of trade eur	-0,0836567	-1,55005	0,5015	-1,00069	-7,4885	2,058E-08
real exchange rate (2005 = 100)	-0,242882	-2,82136	0,06139	-0,978019	-7,36264	3,11E-08
real productivity pl	-0,158536	-1,60312	0,481	-3,88002	-36,1091	1,12E-33
real productivity eur	-0,105315	-1,34872	0,6089	-2,34435	-8,95792	6,447E-16
GDP/employed persons pl/eur	-0,131745	-2,13293	0,2329	-2,00296	-7,63293	5,77E-12
real productivity pl/eur	-0,130555	-1,26551	0,6478	-3,89631	-34,9042	3,05E-37

Romania

test with constant	level			diff		
	estimated value of (a - 1)	test statistic: tau_c(1)	asymptotic p-value	estimated value of (a - 1)	test statistic: tau_c(1)	asymptotic p-value
nominal exchange rate	-0,0964132	-4,59711	0,0004114	-0,52724	-3,01672	0,03338
GDP/employed persons_ro	-0,0678421	-1,37945	0,5941	-3,51418	-18,9247	2,71E-45
GDP/employed persons_eur	-0,0395634	-1,4536	0,5573	-2,96378	-12,7637	3,468E-28
public debt/GDP	-0,0202016	-0,938446	0,7765	-0,416193	-2,86081	0,05007
interest differential	-0,0841565	-3,58574	0,00607	-0,800946	-5,912	1,95E-07
terms of trade ro						
terms of trade eur	-0,0836567	-1,55005	0,5015	-1,00069	-7,4885	2,058E-08
real exchange rate (2005 = 100)	-0,0602786	-1,53796	0,5076	-1,01712	-7,60862	1,39E-08
real productivity ro	-0,131884	-1,82753	0,3674	-3,79848	-29,6223	5,10E-49
real productivity eur	-0,105315	-1,34872	0,6089	-2,34435	-8,95792	6,447E-16
GDP/employed persons ro/eur	-0,0709837	-1,38973	0,589	-3,46081	-17,6103	2,69E-42
real productivity ro/eur	-0,110467	-1,88334	0,3405	-3,67219	-23,0989	2,09E-51

KPSS tests Hungary

	level		level_tred		diff		diff_tred	
	test statistic	P-value	test statistic	P-value	test statistic	P-value	test statistic	P-value
nominal exchange rate	1,55798	0,010	0,292052	0,010	0,077761	0,100	0,020775	0,100
GDP/employed persons_hu	1,62773	0,010	0,455834	0,010	0,228279	0,100	0,031906	0,100
GDP/employed persons_eur	2,06137	0,010	0,256884	0,010	0,051292	0,100	0,02476	0,100
public debt/GDP	1,9206	0,010	0,170139	0,037	0,119163	0,100	0,119681	0,100
interest differential	0,47321	0,048	0,081777	0,100	0,050365	0,100	0,041669	0,100
terms of trade hu	1,60673	0,010	0,138533	0,068	0,102031	0,100	0,102041	0,100
terms of trade eur	1,24032	0,010	0,131231	0,081	0,082854	0,100	0,073525	0,100
real exchange rate (2005 = 100)	1,27067	0,010	0,347424	0,010	0,206956	0,100	0,021855	0,100
real productivity hu	1,63147	0,010	0,458042	0,010	0,086807	0,100	0,032375	0,100
real productivity eur	1,68237	0,010	0,116824	0,100	0,022145	0,100	0,021793	0,100
GDP/employed persons hu/eur								
real productivity hu/eur								

Czech Republic

	level		level_tred		diff		diff_tred	
	test statistic	P-value	test statistic	P-value	test statistic	P-value	test statistic	P-value
nominal exchange rate	1,72314	0,010	0,335595	0,010	0,291479	0,100	0,054162	0,100
GDP/employed persons cz	1,92263	0,010	0,452653	0,010	0,353081	0,099	0,027456	0,100
GDP/employed persons_eur	2,06137	0,010	0,256884	0,010	0,051292	0,100	0,02476	0,100
public debt/GDP	1,75209	0,010	0,162208	0,042	0,345216	0,100	0,16566	0,039
interest differential	0,257836	0,010	0,245678	0,010	0,128675	0,100	0,046839	0,100
terms of trade cz	0,498074	0,045	0,228183	0,010	0,222624	0,100	0,132408	0,079
terms of trade eur	1,24032	0,010	0,131231	0,081	0,082854	0,100	0,073525	0,100
real exchange rate (2005 = 100)	1,74545	0,010	0,282707	0,010	0,261269	0,100	0,060415	0,100
real productivity cz	1,84834	0,010	0,439807	0,010	0,113891	0,100	0,027131	0,100
real productivity eur	1,68237	0,010	0,116824	0,100	0,022145	0,100	0,021793	0,100
GDP/employed persons cz/eur	1,76968	0,010	0,454592	0,010	0,459675	0,051	0,037026	0,100
real productivity cz/eur	1,81506	0,010	0,479297	0,010	0,180517	0,100	0,029566	0,100

Poland

	level		level_tred		diff		diff_tred	
	test statistic	P-value	test statistic	P-value	test statistic	P-value	test statistic	P-value
nominal exchange rate	0,19742	0,100	0,103106	0,100	0,036435	0,100	0,035639	0,100
GDP/employed persons pl	1,97976	0,010	0,107796	0,100	0,042098	0,100	0,030351	0,100
GDP/employed persons_eur	2,06137	0,010	0,256884	0,010	0,051292	0,100	0,02476	0,100
public debt/GDP	1,52592	0,010	0,12035	0,100	0,104524	0,100	0,059387	0,100
interest differential	0,931001	0,010	0,388534	0,010	0,535522	0,039	0,139822	0,066
terms of trade pl	1,3244	0,010	0,283153	0,010	0,063117	0,100	0,062641	0,100
terms of trade eur	1,24032	0,010	0,131231	0,081	0,082854	0,100	0,073525	0,100
real exchange rate (2005 = 100)	0,180693	0,100	0,092848	0,100	0,038402	0,100	0,035831	0,100
real productivity pl	1,76882	0,010	0,061949	0,100	0,032549	0,100	0,032201	0,100
real productivity eur	1,68237	0,010	0,116824	0,100	0,022145	0,100	0,021793	0,100
GDP/employed persons pl/eur	1,79915	0,010	0,097367	0,100	0,038966	0,100	0,032835	0,100
real productivity pl/eur	1,77675	0,01	0,093996	0,1	0,035887	0,1	0,033621	0,1

Romania

	level		level_tred		diff		diff_tred	
	test statistic	P-value	test statistic	P-value	test statistic	P-value	test statistic	P-value
nominal exchange rate	1,43403	0,010	0,222569	0,010	0,600409	0,029	0,197133	0,020
GDP/employed persons_ro	1,95251	0,010	0,418164	0,010	0,075855	0,100	0,031325	0,100
GDP/employed persons_eur	2,06137	0,010	0,256884	0,010	0,051292	0,100	0,02476	0,100
public debt/GDP	0,782272	0,010	0,447821	0,010	0,447304	0,057	0,161732	0,042
interest differential	1,44103	0,010	0,407264	0,010	0,584761	0,031	0,120019	0,100
terms of trade ro								
terms of trade eur	1,24032	0,010	0,131231	0,081	0,082854	0,100	0,073525	0,100
real exchange rate (2005 = 100)	1,30326	0,010	0,264342	0,010	0,120649	0,100	0,074887	0,100
real productivity ro	1,83962	0,010	0,339276	0,010	0,04949	0,100	0,034358	0,100
real productivity eur	1,68237	0,010	0,116824	0,100	0,022145	0,100	0,021793	0,100
GDP/employed persons ro/eur	1,9015	0,010	0,418327	0,010	0,07597	0,100	0,033149	0,100
real productivity ro/eur	1,81273	0,01	0,333049	0,01	0,050715	0,1	0,034695	0,1

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INVESTMENTS IN GREEN ECONOMY AS A POTENTIAL SOURCE OF VALUE ADDED

JEL classification: F21, D24

Abstract

The aim of this paper is to assess the possibilities of increasing domestic value added created by exports by investments in green economy. It can be argued that a large portion of „green economy“ is knowledge intensive with respect to regular sectors of economy, and if knowledge based economy (KBC) plays a significant role in determining the domestic value added created by exports, economies with a larger stock of KBC should have a larger difference in VAX between knowledge-intensive industries and less knowledge-intensive industries. In Croatia it has already been shown that sectors of economy with larger stock of intellectual capital measured by Intellectual Capital Efficiency (ICE) index attracted more FDI, which can also serve as a predictor for larger value added in exports due to higher productivity. Knowledge intensity of 18 industries in the US as the benchmark economy shows that „Electrical and optical equipment“ has above average knowledge intensity of 0,53, measured as share of labour compensation of personnel with tertiary education, just as financial intermediation and business services sectors (0,62), whereas construction (0,17), agriculture, hunting, forestry and fishing with (0,21) and basic metals and fabricated metal products (0,21) are under average sectors with respect to knowledge intensity. This is important, as in the developed economies only specific products, processes and functions that outperform emerging economies in Global Value Chains are able to profit from the larger share of value added, and in this respect Croatia with its stock of intellectual capital, higher wages (especially in workers with tertiary education) and should behave more like a developed than emerging economy. This hypothesis is tested on a sample of Croatian firms and sectors in different counties/regions, in order to assess the importance of knowledge based capital for their competitiveness and

domestic value added embodied in exports, which can be provide by attracted FDI. As an extension, the potential role of financial development could be included, and the measure of the economy's financial development is the amount of credit by banks and other financial intermediaries to the private sector as a share of GDP.

Key words: *value added, global value chains, electronics, green economy, competitiveness*

1. INTRODUCTION

The separation between knowledge intensive industries and those that are less knowledge intensive has become even more important with globalization and has given countries with competitive advantage in knowledge capital in certain knowledge intensive industries to participate in Global Value Chains and reap the benefits through exports. In Croatia, it has been shown that sectors of economy with larger stock of intellectual capital attracted more FDI, and therefore it would be reasonable to conclude that those sectors are a potential source of value added in exports through Global Value Chains. However, in developed economies only specific products, processes and functions that outperform emerging economies in Global Value Chains (Kaplinsky, Morris :: 2011) are able to profit from the larger share of value added, and Croatian economy has characteristics of both emerging and developed economies and due to higher wages, especially in workers with tertiary education, should be regarded as a developed economy. This is even more true in ICT sector (Kraemer, Linden, Dedrick :: 2011), which is mostly service producing and where system integrators are the most productive segment with largest value added. As for green industries that are now emerging in Croatia, those can be seen as a two sector economy, where one employs higher skilled workers with higher wages, and the other lower skilled workers with lower wages. This makes them different from other electronics industries, as they present a potential for growth. It was already shown that in two sector economy skills-biased technological shocks may have an adverse effect not only on unskilled employment, but also on the employment rate of the skilled labor force, which can possibly explain why technological shocks of this type lead to an increase in wage dispersion between unskilled workers with 'good' jobs and those with 'bad' jobs. It was also shown that the higher the initial unemployment rate, the higher the likelihood that skills-biased technological shocks will further increase it. In case of participation in Global Value Chains this need not necessarily be so, as the exports could lead to new employment that would not be limited only to higher skilled workforce, but also to all workforce in green (ICT) industries. Knowledge intensity of 18 industries in the US as the benchmark economy shows that „Electrical and optical equipment“ has above average knowledge intensity of 0,53 measured as share of labour compensation of personnel with tertiary education. We have tested the

hypothesis on a sample of Croatian firms in different regions, in order to assess which types of knowledge based capital are most important for their competitiveness, value added and investments. The importance of financial development, measured as the amount of credit by banks and other financial intermediaries to the private sector as a share of GDP is also included in order to assess the potential of investments in green economy as a source of value added in Croatia.

2. METHODOLOGY

We use industry-economy difference-in-difference estimation. If KBC plays a significant role in determining the domestic value added created by exports, economies with larger stock of KBC should have a larger difference in VAX between knowledge intensive industries and less knowledge intensive industries. This is tested by estimating the following model:

$$VAX_{ijt} = \beta (h_{ij} \times KBC_{jt}) + \gamma X_{ijt} + \alpha_{ij} + \alpha_{it} + \varepsilon_{ijt}$$

The left-hand side is the VAX computed from OECD_WTO- TiVA (trade in value added) Database for industry i in economy j at time t . Since it is a ratio the value of which is constrained between 0 and 1, it is transformed to $VAX(1-VAX)$ and uses a log value that better fits the OLS regression. The first term on the right-hand-side is the interaction of industry i 's knowledge intensity and the stock of KBC of economy j at time t . The KBC stock per hour worked by engaged personnel is expressed in log values. If the coefficient β is positive and statistically significant, it means that VAX is indeed higher in more knowledge-intensive industries and that the inter-industries difference is larger for economies possessing a larger stock of KBC. The second term is a vector of control variables that may influence both VAX and KBC. In the standard regression, only the economy-industry level physical capital per hour worked is included. The third and fourth terms represent economy-industry fixed effects and economy-time fixed effects. The former fixed effects control for unobserved heterogeneity specific to each industry in each economy. They control not only for the structural difference among industries in terms of level of value-added embodied in exports, but also for the unique historical or geographical conditions that enable an economy to create large value in specific industries. The latter fixed effects control for economy-specific shocks such as movements in the domestic business cycle and also for each economy's degree of integration into GVCs. As previously mentioned, an industry can have high VAX when its engagement in GVCs is low, because its use of imported contents in its exports is very small. Although VAX declined in many economies after 1990, with the rise of GVCs, the extent of this decline differed substantially across economies. Economies with fast income growth experienced the largest decline (Johnson and Noguera, 2012). Economy specific time fixed effects, therefore, control for such heterogeneous trends in VAX. The last term is an error term assumed to be independent and identically

distributed across economies and industries but potentially correlated across times. Heteroscedasticity-consistent standard errors are used to correct for the potential effect of serial correlation. An important issue is the definition of industry level knowledge intensity h_{ij} . Because industry level estimates of KBC could not be obtained for the sample economies, they are proxied by the share of labour compensation of employees with tertiary education obtained from the EU-KLEMS database. This choice seems sensible given that advanced educational attainment is usually required for the creation and management of sophisticated knowledge. However, the knowledge intensity of an industry is likely to be influenced by the economy-wide availability of KBC. This may bias the estimated coefficient of the interaction term. Therefore, following Rajan and Zingales (1998), each economy's industrial knowledge intensity is replaced by that of the United States as the benchmark economy. The Time-averaged value of US knowledge intensity between 1995 and 2005 is used as the knowledge intensity of each industry. Each h_{ij} is thus replaced by the time-invariant h_{ijS} , i . This approach requires excluding the United States from the sample for a final sample of 14 European countries. Table 1 lists the measure of knowledge intensity for the 18 industries in the TiVA database. Knowledge intensity is relatively higher in manufacturing industries such as electrical and optical equipment and in service industries such as financial intermediation and business services. (OECD :2013)

Table 1

Knowledge intensity of 18 industries
Share of labour compensation of personnel with tertiary education

01t05	Agriculture, hunting, forestry and fishing	0,21
10t14	Mining and quarrying	0,34
15t16	Food products, beverages and tobacco	0,29
17t19	Textiles, textile products, leather and footwear	0,26
20t22	Wood, paper, paper products, printing and publishing	0,38
23t26	Chemicals and non-metallic mineral products	0,42
27t28	Basic metals and fabricated metal products	0,22
29	Machinery and equipment, nec.	0,31
30t33	Electrical and optical equipment	0,53
24t35	Transport equipment	0,36
36t37	Manufacturing nec; recycling	0,29
40t41	Electricity, gas and water supply	0,34
45	Construction	0,17
50t55	Wholesale and retail trade; Hotels and restaurants	0,26
60t64	Transport and storage, post and telecommunication	0,28
65t67	Financial intermediation	0,62
70t74	Business services	0,62
75t95	Other services	0,37

As an extension of the base model, the model may be estimated by incorporating the potential role of financial development. Efficient financial

intermediation can facilitate risky and long-term investments in KBC and enable economies to achieve comparative advantage in high value-added GVC activities. An interaction term between each industry's financial dependency and each economy's financial development is included. As the measure of financial dependency, each industry's input coefficients of financial intermediation obtained from WIOD databases are used. The input coefficients are those of the United States, averaged over 1995-2009. The measure of an economy's financial development is the amount of credit by banks and other financial intermediaries to the private sector as a share of GDP used by Manova (2012).

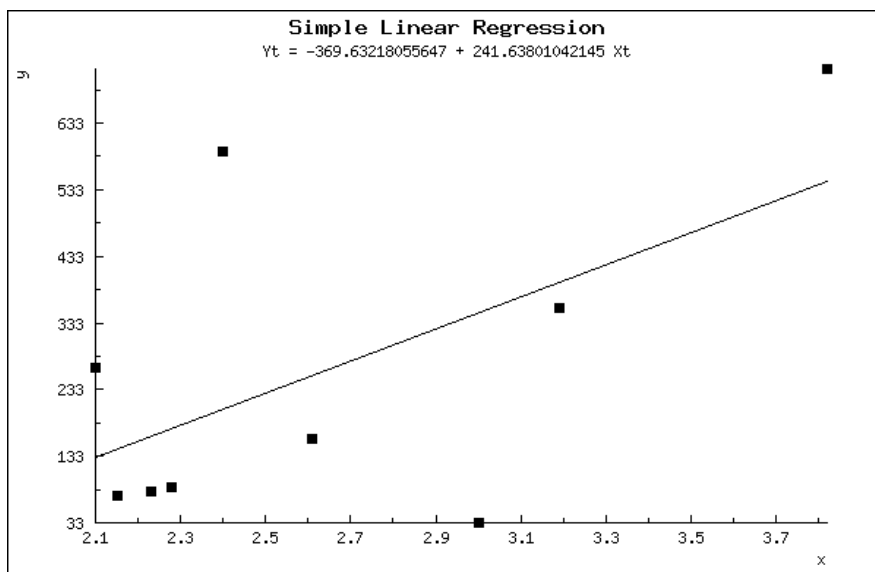
In Croatian case, as we don't have VAX data from a database, we used FDI per industry in a year t , as a fair estimate of VAX as FDI is correlated with ICE in industries for Croatia. For KBC, instead of share of labour compensation of employees with tertiary education obtained from the EU-KLEMS database, we used average salaries in sectors in the whole labour compensation for all sectors, for all Croatian regions and sectors, bearing in mind that higher labour compensation implies that higher education and skills in Croatia, and therefore also higher KBC. Thus, by approximation, we were able to determine which regions may have the largest stock of KBC for obtaining VAX from GVCs. Finally, we compared these results with results where only green industry sectors were included (J, D, E) to see whether green industry on its own has a better potential or larger stock of KBC for obtaining VAX from GVC than the whole economy. Also the share of credit provided to green industries in comparison with GDP (or economy in general) can be checked.

3. ICT INDUSTRY, TiVA GVCs, KBC, FDI AND GREEN ECONOMY

One of the main problems of modern economies undergoing a prolonged adjustment of their domestic markets is how to derive more value from firms international engagement by creating or capturing value in GVCs. While some economies still focus on enhancing their export market share, a growing number also focus on enhancing the value added earned per dollar of exports. Even China has shifted its focus from market share alone, as it sees itself building its future prosperity on innovation in which everyone's creative potential is tapped, by increasing its ability to produce more value, not more products, moving up the value chain and competing globally in the same product space as advanced countries. Croatia as an EU country is inferred to be closer to developed than to developing countries, and an economy's ability to create larger value in GVCs may be measured by observing the ratio of domestic value-added embodied in its exports to its actual exports. In the GVC literature this is known as „high value-added activity“, which refers to activities that are better remunerated (have higher margins) and have higher entry barriers because the skills required are difficult to obtain. As it has already been shown by VAIC and ICE indexes that domestic value-added and knowledge based capital (KBC) in Croatia are both correlated to

FDI, it follows that in Croatia FDI may be used as a proxy for high value-added activities, especially in case those activities are also directed towards exports. ICT sector is one of such sectors, which accounts for exports and high productivity with high value-added activities. Green industries may be considered as a special case of electrical and optic industries with higher knowledge intensity and higher skilled workers, but also of machinery and equipment and manufacturing industries, which employ lower skilled workers and have lower knowledge intensity. Therefore, green industries may be regarded as two sector economy under technological shock, with all consequences for unemployment that this entails. One important problem for analysis is linking TiVA and FDI Statistics, which is important for Croatia, as it doesn't have TiVA Statistics yet (as it has only recently joined the EU). Multinational enterprises (MNEs) are one of the main drivers of globalisation and of the creation of global value chains. FDI is important to many economies, and MNEs account for a substantial part of international trade flows.

Figure 1 Linear regression of FDI 1993-2005 and ICE 2006
Correlation coefficient = 0.67;



T-test: 1.8094095491296; F-test: 3.273963; P-value: **0.072324**

Table 2

1993-2005 - FDI in million euros, ICE 2006, ICE I-IX 2005 and VAIC 2002

Sector	FDI	ICE 2006	ICE 2005	VAIC 2002
Financial intermediation	714,03	3,79	2,96	2,28
Wholesale and retail trade	589,37	2,37	2,39	2,64
Mining	354,92	3,16	2,2	2,78
Other business services	266,25	2,07	1,84	
Post and telecommun.	159,37	2,58	2,24	2,73
Construction	85,2	2,25	2,11	2,19
Hotels and restaurants	72,85	2,12	2,27	3,4
Other prod. of non-metal. pr.	79,3	2,2	1,44	2,3
Water	32,83	2,87	1,96	--
Other	322,18	--	--	--
Agriculture	1	1,56	1	1,59
Source: HNB i CIK – Center for Intellectual Capital				

Table 3

VAIC and ICE for chosen firms, ICT sector excluded

	VAIC 96-01	ICE 2003	VA96-01	VA 2006	ICE 2006
TDR	13,72	7,91	556	863	7,4
Tankerska plovodba	10,82	7,59	380	409	8,96
Plinacro	10,78	15,86	177	311	11,71
Končar- e.tr.	8,69	3,68	34	86 (2003)	----
DM	7,33	3,19	68	196	3,48
PBZ Am. Ex	7,32	4,81	154	305	5,96
Žito	7,31	4,37	81	155	5,62
Zagreb.piv.	6,54	6,34	453	----	----

HEP	3,0 (2002)	5,65	1494 (2002)	478	9,85 (2005)
TC Koromačno**	4,47 (2002)	5	---	---	---
Našicecement	5,49	4,64	158	198	5,06
PLIVA	5,47	2,75	2101	1084	4,11
Atlantic trade	4,66	2,71	39	97	2,43
Cedevita	4,49	1,84	93	74	2,97
Belupo	4,44	3,11	230	293	---
Privredna banka	4,17	4,31*	2767	---	5,65*
INA	4,13	3,51	3898	3892,6	3,77
Jamnica	4,1	3,1	175	254	2,04
Vindija	3,91	2,43	123	---	3,3 (2005)
Lura	3,73	2,07	405	375	2,03
Franck	3,71	3,11	201	200	3,25
Coca Cola	3,71	3,45	326	289	2,76
Ledo	3,6	3,61	163	194	2,52
Dalmacijacement	3,25	3,67	208	251	2,63
KONZUM	---	1,28	---	231	1,43
(Source: Intellectual Capital 95-01, November 2002., 2004, 2007; Center for Intellectual Capital - CIK) * PBZ Leasing **Holcim					

Despite substantive and ongoing research on MNEs and on FDI and its economic impact, measures that quantify the direct and indirect roles of FDI in GVCs are not available for a wide range of countries and industries. Integrating FDI income receipts and payments into TiVA framework to adjust the TiVA data to better understand the impact of foreign ownership on a country's exports and imports of value added is necessary. This allows us to quantify the „stickiness“ of value added produced by foreign owned firms. Sticky parts that are expected to remain in the economy include wages and taxes. However, the other part – the operating surplus or profits – is expected to be less „sticky“ because it accrues to the foreign parent. OECD AMNE data indicate that around 45% of foreign produced VA consists of operating surplus and hence can potentially be repatriated. Similarly, TiVA currently does not specify how much of a country's imported value added is actually produced by the foreign affiliates of a country's MNEs. To produce this link, we have to move to the foundations of TiVA and complement the ICIO with data on ownership and FDI.

First it would be necessary to divide FDI income payments into the part that leaves the economy – distributed earnings and net interest payments – form the portion that potentially sticks in the economy – reinvested earnings. Incorporating FDI income into TiVA requires total FDI income payments and receipts and reinvested earnings by industry at the two-digit level and by partner over time.

One of the main challenges is not only in measuring income flows, but also in linking the FDI income data with the „real“ economy (value added or output that is produced). It can appear that countries that host SPEs pay a significant amount of FDI income when in fact that FDI income originates in other countries and passes through the economy on its way to the ultimate source of the investment. This paper presents an attempt to better integrate FDI statistics into GVCs, and TiVA by linking them to the concepts of KBC and intellectual capital through ICE and VAIC index, since intellectual capital or KBC is the part of FDI invested into wages and education of employees, that is most likely to „stick“ in the country (except in case that the employees leave the country and move to the country of from which the FDI originates). This capital may represent a potential for better integration of Croatia into GVCs, and one way this capital may be used is by activating it through green economy.

4. FDI, HIGH SKILLED AND LOW SKILLED JOBS

We start with the data for FDI in J sector communication and postal services - or electric and optic equipment - by regions in Croatia, as a proxy to the domestic value added embodied in its exports, using h_{ij} for electric and optic equipment and with the ratio of remuneration for high skilled to low skilled jobs, which are mostly in electric and optic equipment. It can be seen that in some regions more FDI is attracted and that it is correlated with ICE indeks by sectors of economy. More FDI is attracted to ICT and electric and optical industry than to machinery nec. and recycling, which also corresponds to the difference in salaries in those sectors. Therefore value added is higher in those regions and sectors and the ratio between high skilled and low skilled job remuneration is higher as well. In the study of Nina Pološki we may verify whether those regions also have a larger proportion of tertiary employees. Therefore it can be concluded that ratio of tertiary remuneration in total remuneration is higher in those regions, which implies that they have higher stock KBC. The difference in the stock of KBC is larger not only by sectors, but also by different regions. This could in turn imply that Croatia has a fairly large stock of KBC that could be used for obtaining VAX from GVC, but only if it is able to better connect its regions and organise production on the basis of this better organisation, instead of letting high skilled workers leave the country. Second, we should check the development of green industry by regions. It is clear that some regions with higher KBC and higher FDI could have also received more support for their green industries. That may be

compared with the ratio of credits issued by the banks to the GDP and receipts from EU funds for green industries, which should be correlated.

Let us go back to our model:

$$VAX_{ijt} = \beta (h_{ij} \times KBC_{jt}) + \gamma X_{ijt} + \alpha_{ij} + \alpha_{it} + \varepsilon_{ijt}$$

It may be shown that if FDI is correlated to ICE by sectors, and larger positive value of β indicates larger stock of KBC as the difference between knowledge intensive industries and less knowledge intensive industries is larger, than the potential of green industries within the same economy could be measured only as a ratio of green industry sector stock of KBC to the stock of KBC in the whole economy, in which case the formula of the model can be simplified and written without the economy and sector specific correction terms $\alpha_{ij} + \alpha_{it} + \varepsilon_{ijt}$

Thus the model at first becomes just $VAX_{ijt} = \beta (h_{ij} \times KBC_{jt})$ and the measure of green economy potential in the economy i and industry j is then $VAX_{igt} = \beta (h_{ig} \times KBC_{gt}) / VAX_{ijt} = \beta (h_{ij} \times KBC_{jt})$, where g signifies that only „green“ industry data can be used as j terms for regression inputs. Instead of VAX and KBC (EU KLEMS) that are not available for Croatia, we may use FDI (sector, region) and ICE or statistics for wages per sector and per region. To further improve the results, we could use the second term on the right side, γX_{ijt} , and employ instead VAIC index for sectors in different times, to account for physical capital correction.

Thus the new simplified formulas become:

$$FDI_{ijt} = \beta (h_{ij} \times ICE_{jt}), \text{ and}$$

$$FDI_{ijt} = \beta (h_{ij} \times ICE_{jt}) + \gamma VAIC_{ijt}$$

Calculation using this formula for „green“ economy and total economy with all sectors, using conversion for knowledge intensity variable h should give us a fairly good correlation and a fairly large and positive β , implying that Croatian economy has a fair amount of KBC to be competitive, but even more in GVCs of green economy when β just for „green“ sectors is put into relation with β for total economy.

5. JOB LOSS AND JOB GAINS DUE TO TECHNOLOGICAL SHOCKS

It has been shown that technological shocks that demand high skilled workforce create unemployment in low skilled sectors, although they stimulate employment of high skilled workforce (Agenor, Aizenman : 1997). Green industries, however, are different, in that they have the potential for employment in both sectors. It can be shown that the receipts from EU funds for green industries and FDI received by region also correspond to lower unemployment in such regions. Therefore, it may be concluded that green industries have potential

for reducing unemployment, although more exact calculation of capital in green industries is necessary.

6. CONCLUSION

We have analysed the possibilities for development of green industries and have found that sectors with higher FDI have also higher ICE index and therefore KBC should also be larger, which can be visible in the wages of workers in different sectors of economy. This gives us a chance to integrate FDI statistics into TiVA statistics, which have only recently been made available for Croatia by OECD Stat. Furthermore, it could be checked whether the ratio of high skilled (with higher wages and in high knowledge intensity industries) to low skilled workers is higher in regions with higher KBC expressed by ICE index and if such regions have been able to receive more support for green industries, measured by the ratio of credits issued by the banks to the GDP and EU funds for green industries by regions. It is theoretically possible that green industries, unlike ICT and other high skilled industries, reduce unemployment due to technological shock that is able to stimulate employment not only of high skilled workers, but also of workforce with lower skills. Therefore, it can be concluded that there is potential for development of high value added green industries and their inclusion in GVCs, provided that there exists adequate financial intermediation and high skilled workforce (e.g. in a particular region). One problem for this scenario may appear with the current further opening of EU borders for trade and workforce, which means that Croatian employers have to compete in wages with EU and other non-EU developed countries that may be able to offer higher wages to Croatian nationals than domestic employers, especially in the ICT sector. We have included comparative analysis of TiVA indexes for Croatia, 2011, and indexes for several CEE countries (Slovenia, Slovakia, Czech Republic, Hungary, Poland), which show that Croatia has no significant comparative advantage in general and in green industries (electrical equipment) as well (Appendix 4), although green industries in Croatia appear to be slightly more competitive in comparison with total economy if we take into account our simplified model with FDI and ICE indexes. In conclusion, we should expect further publication of TiVA data for Croatia by OECD, as well as EU KLEMS, in order to make further more complex and precise calculations and conclusions, which are now hardly possible with the present sets of data.

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APPENDIX 1

Table 3

Conversion matrix of FDI industries (ISIC 4) to TiVA industries

Industry (TiVA)	Economic Activity (FDI)	Notes	Industry	Economic Activity (FDI)	Notes
C01T05	595		C34T35	3595	
C10T14	1495		C36T37	----	C36T37 missing completely
C15T16	1605		C40T41	4195	
C17T19	1805		C45	4500	
C20T22	2205		C50T55	5295 + 5500	
C23T26	2595		C60T64	6495	
C27T28	2805		C65T67	6895	
C29	2900		C70T74	7395	
C30T33	3295 + 3300		C75T95	9995	

APPENDIX 2

Table 4

FDI (2010), knowledge intensity h, ICE (2006) and average wages per sector of economy

Sector	FDI 2010	h	ICE 2006	Wages
Agriculture, hunting, forestry and fishing	1	0,21	1,00	
Mining and quarrying	354,92	0,34	3,16	
Food products, beverages and tobacco	--	0,29	--	
Textiles, textile products, leather and footwear	--	0,26	--	
Wood, paper, paper products, printing and publishing	--	0,38	2,58	
Chemicals and non-metallic mineral products	79,3	0,42	1,44	
Basic metals and fabricated metal products	--	0,22	--	
Machinery and equipment, nec.	--	0,31	--	
Electrical and optical equipment	--	0,53	2,58	
Transport equipment	--	0,36	2,58	
Manufacturing nec; recycling	--	0,29	--	
Electricity, gas and water supply	32,83	0,34	1,96	
Construction	85,2	0,17	2,11	
Wholesale and retail trade;	589,37	0,26	2,39	
Hotels and restaurants	72,85		2,27	
Transport and storage, post and telecommunications	159,37	0,28	2,58	
Financial intermediation	714,03	0,62	3,79	
Business services	266,25	0,62	2,07	
Other services	322,18	0,37	2,07	

APPENDIX 3

Figure 2

OLS regression for the model $FDI_{ijt} = \beta (h_{ij} \times ICE_{jt}) - \text{total economy}$

Figure 3

OLS regression for the model $FDI_{ijt} = \beta (h_{ij} \times ICE_{jt}) - \text{green economy}$

Ratio of β_{green} to $\beta =$

APPENDIX 4 – TiVA indexes for Croatia, Source: OECD Stat

Indicator	Time:2011											
	EXGR_Gross exports	EXGR_Final products	EXGR_Gross exports of intermediate products	EXGR_DV & Gross value added content of gross exports	EXGR_DDI	EXGR_ID & Content of domestic value added from domestic intermediate	EXGR_NIM & Domestic value added content	EXGR_FVA & Foreign value added content of gross exports	IMGR_Gross exports	IMGR_Final products	IMGR_Gross exports of intermediate products	
Industry												
CTOTAL: TOTAL	19631.78	12721.8	7080.93	16592.26	9108.36	6574.1	-90.22	3929.46	20318.77	7826.03	12489.74	
C01T05: Agriculture, hunting, forestry and fishing	285.95	148.58	143.88	242.35	141.52	422.99	-322.16	43.0	413.2	139.05	274.15	
C10T14: Mining and quarrying	155.59	53.44	104.66	127.45	52.00	84.8	-9.4	28.14	2401.55	3.14	2368.4	
C15T37: Total Manufactures	5997.7	2850.24	3268.43	4112.93	1932.95	1236.01	943.97	1884.76	11196.5	5048.36	6148.14	
C15T16: Food products, beverages and tobacco	530.51	403.03	130.8	433.9	184.32	196.51	53.07	96.61	1206.19	819.24	386.95	
C17T19: Textiles, textile products, leather and footwear	482.94	391.32	94.8	392.25	205.35	50.05	106.84	120.69	978.24	562.74	415.49	
C20T22: Wood, paper, paper products, printing and publishing	305.08	70.71	239.18	240	93.93	126.88	19.2	65.08	606.41	117.56	488.86	
C20: Wood and products of wood and cork	194.00	45.17	150.51	180.21	71.45	40.79	47.97	33.86	138.6	16.33	122.27	
C21T21: Pulp, paper, paper products, printing and publishing	111.02	24.54	88.67	79.79	22.48	85.08	-28.77	31.23	467.81	101.22	366.59	
C23T26: Chemicals and non-metallic mineral products	1747.44	639.07	1132.98	987.09	513.59	516.53	-43.02	760.35	3401.22	872.88	2528.54	
C23: Coke, refined petroleum products and nuclear fuel	702.19	286.41	427.44	309.84	164.04	290.77	-144.98	392.35	1121.17	308.79	612.38	
C24: Chemicals and chemical products	737.88	308.4	437.8	464.96	241.94	103.72	119.31	272.92	1477.52	418.25	1058.27	
C25: Rubber and plastics products	113.23	20.27	94.58	68.34	33.25	53.39	-18.3	44.88	482.07	118.26	363.8	
C26: Other non-metallic mineral products	194.14	23.99	173.16	143.95	74.36	68.64	0.95	50.19	320.46	26.36	294.06	
C27T28: Basic metals and fabricated metal products	669.49	121.6	558.38	459.82	235.18	201.84	22.8	209.68	1512.03	138.44	1373.59	
C27: Basic metals	290.72	9.2	255.49	150.71	60.62	26.25	63.84	110.01	978.28	16.73	961.55	
C28: Fabricated metal products	408.77	112.7	302.89	309.1	174.56	175.59	-41.05	99.67	532.75	121.71	411.04	
C29: Machinery and equipment, nec	381.3	189.53	197.73	282.33	166.52	23.23	92.58	98.97	1142.68	874.89	265.79	
C30T33: Electrical and optical equipment	712.12	393.53	329.51	547.02	235.98	49.96	281.09	165.1	1214.82	846.53	366.29	
C30T33X: Computer, Electronic and optical equipment	307.57	217.15	93.74	252.34	105.48	13.19	133.67	55.23	817.61	591.4	226.21	
C31: Electrical machinery and apparatus, nec	404.56	176.38	235.76	294.68	130.5	36.77	127.41	106.87	397.21	255.13	142.08	
C34T35: Transport equipment	799.31	363.28	491.42	541.90	173.67	46.39	321.94	257.32	839.37	631.5	207.87	
C34: Motor vehicles, trailers and semi-trailers	62.28	29.67	34.13	44.88	24.67	15.21	5.01	17.4	630.91	514.3	116.6	
C35: Other transport equipment	737.03	333.61	457.3	497.11	148.31	31.18	316.93	239.92	208.46	117.2	91.26	
C36T37: Manufacturing nec; recycling	269.5	277.88	93.62	258.53	124.41	24.62	109.40	110.97	295.54	194.78	110.76	
C40T41: Electricity, gas and water supply	74.37	24.27	50.14	48.12	18.53	408.85	-378.26	25.26	68.1	168.8	408.3	
C45: Construction	318.68	187.31	134.08	232.18	108.99	168.22	-44.93	89.5	24.75	9.51	18.25	
C50T74: Total Business Sector Services	11824.73	8529.33	3333.45	9888.84	6372.31	3767.07	-150.55	1725.83	4866.71	2014.67	2852.04	
C50T55: Wholesale and retail trade; hotels and restaurants	9180.83	4308	902.9	4507.79	2881.81	934.19	691.78	661.77	2990.59	1268.45	1722.14	
C50T52: Wholesale and retail trade; repairs	2045.74	1184.34	891.25	1789.49	1076.12	894.35	-180.86	284.98	2868.17	952.15	1716.02	
C55: Hotels and restaurants	3138.09	3123.67	11.64	2798.3	1808.7	49.84	882.76	396.79	322.42	316.3	6.12	
C60T64: Transport and storage, post and telecommunications	4599.84	3269.68	1337.11	3672.52	2170.77	647.62	853.93	872.1	861.27	403.3	457.97	
C60T63: Transport and storage	4172.67	3089.29	1089.95	3294.52	1946.56	195.57	1151.39	841.74	721.77	374.55	347.22	
C64: Post and telecommunications	427.17	180.39	247.16	378	224.22	451.25	-297.46	30.35	139.5	28.75	110.75	
C65T67: Financial intermediation	130.74	37.78	93.32	123.5	90.62	733.79	-700.91	7.24	163.32	56.11	107.21	
C70T74: Real estate, renting and business activities	1913.32	913.89	1000.12	1685.03	1229.11	1451.27	-965.35	184.72	851.53	288.8	564.72	
C70: Real estate activities	660.1	559.5	100.74	636.83	569.04	428.1	-360.31	23.27	225.66	181.18	44.48	
C71: Renting of machinery and equipment	345.58	244.42	101.39	321.27	228.83	24.41	68.03	24.32	43.4	20.97	22.73	
C72: Computer and related activities	11.37	5.3	6.13	9.78	6.32	125.1	-121.64	1.58	329.43	56.93	272.5	
C73T74: R&D and other business activities	896.27	104.67	791.87	717.15	424.92	873.96	-581.43	135.56	253.04	28.03	225.01	
C75T95: Community, social and personal services	974.77	928.63	46.47	839.39	481.13	485.15	-127.89	135.37	757.97	444.51	313.46	
C75: Public administration and defence; compulsory social security	8.95	8.47	0.49	7.68	5.22	184.12	-181.67	1.27	27.38	14.15	13.23	
C80: Education	16.28	12.65	3.69	15.38	13.36	42.82	-40.59	0.9	45.49	38.7	6.79	
C85: Health and social work	32.29	31.21	1.12	28.12	22.8	22.05	-17.33	4.18	36.04	30.39	5.66	
C90T93: Other community, social and personal services	917.25	876.31	41.17	788.22	439.64	238.87	111.71	129.03	649.06	361.27	287.79	
C95: Private households with employed persons	0	0	0	0	0	0	0	0	0	0	0	
C10T14: Memorandum item: Industry (Mining, Manufactures and Utilities)	6227.66	2927.96	3423.25	4289.5	2004.53	1729.66	555.3	1938.16	14256.14	5221.3	9034.84	
C45T95: Memorandum item: Total Services including Construction activities	13118.18	9645.27	3513.99	11601.41	6962.33	4421.45	-323.37	1947.7	5649.43	2468.68	3180.75	
C50T95: Memorandum item: Total Services	12799.5	9457.96	3379.92	10828.23	6853.44	4253.23	-278.43	1881.21	5624.68	2459.17	3165.5	
C50T64: Memorandum item: Wholesale, retail, hotels, restaurants, transport	9780.67	7577.88	2240.01	8180.31	5052.59	1582	1545.71	1533.87	3851.86	1671.78	2180.11	
C50T74: Memorandum item: Finance, Real Estate and business services	2044.06	951.85	1093.44	1808.63	1319.73	2185.07	-1696.26	191.96	1014.85	342.91	671.93	

DFD_FVA Foreign Value added embodied in domestic final demand	FFD_DVA Domestic Value added embodied in foreign final demand	BALVAFD Value added embodied in final demand, balance	FDVA: Value added embodied in final demand	REII: Re- exported intermedia te imports	PROD: Production gross output	VALU: Value added	CONS_FV Foreign value added content of total consumpti on	GFCF_FVA Foreign value added content of gross fixed capital formation	EXGR_DV ASH: Domestic value added share of gross exports	EXGR_FVA SH: Foreign value added share of gross exports	EXGR_FNI: DVA share of gross exports of final products	EXGR_INT DVASH: DVA share of gross exports of intermedia te products	EXGR_INT DVAPSH: DVA in gross exports of intermedia te products, partner share
16357.69	15670.7	-686.99	54504.92	3932.82	112793.32	54504.93	5963.59	2533.83	79.87	20.13	52.22	27.65	100
609.66	564.09	-45.57	3164.21	58.72	6393.58	3164.21	285.9	60.61	84.75	15.25	42.17	42.59	100
2429.06	136.7	-2292.35	375.81	738.38	1123.26	375.81	25.68	9.69	81.91	18.09	26.8	55.11	100
4775.35	3166.24	-1609.11	9065.79	1942.47	28736.43	9065.79	2280.19	644.42	68.58	31.42	32.12	36.45	100
394.09	380.67	-13.42	2289.18	105.57	6588.72	2289.18	772.74	1.96	81.79	18.21	61.62	20.17	100
351.22	255.21	-96.01	552.36	137.65	1299.02	552.36	154.59	2.03	75.01	24.99	60.28	14.72	100
359.26	220.46	-138.79	644.73	139.68	2619.7	644.73	128.25	3.88	78.67	21.33	17.05	61.62	100
79.96	112.08	32.12	253.93	31.39	689.72	253.93	13.36	2.99	82.55	17.45	18.53	64.03	100
279.3	108.39	-170.91	390.81	108.28	1929.98	390.81	114.89	0.89	71.87	28.13	14.47	57.4	100
1292.85	1029.17	-263.68	2711.47	772.85	9740.81	2711.47	950.15	9.39	56.49	43.51	19.29	37.19	100
221.14	454.46	233.32	1281.85	270.03	5487.05	1281.85	651.03	3.96	44.12	55.89	17.25	26.86	100
663.52	345.34	-318.19	694.5	333.97	2118.12	694.5	193.03	0.66	63.01	36.99	25.63	37.39	100
239.16	86.54	-152.62	272.31	104.42	927.26	272.31	79.26	1.21	60.36	39.64	9.94	50.42	100
169.03	142.84	-26.18	462.81	64.44	1208.38	462.81	26.83	3.66	74.15	25.85	8.01	66.13	100
716.79	436.48	-280.32	1049.82	495.82	2709.08	1049.82	50.28	86.34	68.68	31.32	12.41	56.27	100
350.25	86.71	-263.54	127.95	366	550.3	127.95	2.15	4.04	57.81	42.19	1.16	56.65	100
366.55	349.77	-16.78	921.87	129.81	2158.78	921.87	48.14	82.3	75.62	24.38	19.59	56.03	100
556.63	189.63	-367	385.02	98.17	881.6	385.02	17.27	110	74.04	25.96	35.65	38.4	100
606.45	285.76	-320.69	724.16	99.67	2188.4	724.16	52.5	233.21	76.82	23.18	41.9	34.92	100
394.7	118.62	-276.08	307.03	50.68	895.26	307.03	23.86	68.35	82.04	17.96	57.04	25	100
211.75	167.14	-44.6	417.13	48.99	1293.14	417.13	28.64	164.86	72.84	27.16	30.39	42.45	100
346.61	219.93	-126.69	410.27	64.44	1821.74	410.27	72.92	181.44	67.81	32.19	29.14	41.66	100
250.71	39.82	-210.89	85.75	30.97	216.48	85.75	10.81	5.9	72.07	27.93	32.58	39.49	100
95.9	180.11	84.21	324.52	33.47	1605.26	324.52	62.11	175.54	67.45	32.55	25.6	41.85	100
151.44	148.92	-2.52	298.78	28.62	887.36	298.78	81.48	16.18	69.97	30.03	52.24	17.73	100
554.16	428.03	-126.13	1676.43	159.42	6384.79	1676.43	539.15	2.73	66.04	33.96	21.52	44.52	100
100.04	270.89	110.86	3137.35	4.3	9181.01	3137.35	119.1	1091.25	72.60	27.14	42.2	30.05	100
7049.39	10131.92	3082.53	26557.63	914.5	44416.67	26557.63	1177.26	109.05	85.27	14.73	61.08	24.18	100
3022.04	3814.48	792.45	8436.47	529.06	15586.28	8436.47	640.49	66.91	87.2	12.8	72.01	15.19	100
2762.42	1958.99	-803.43	6081.81	527.02	11498.09	6081.81	550.06	66.4	86.98	13.02	48.87	38.1	100
259.62	1855.49	1595.88	2354.65	2.04	4088.2	2354.65	90.43	0.51	87.34	12.66	87.02	0.32	100
1199.15	2816.2	1617.04	4360.05	167.1	8700.02	4360.05	192.96	12.77	80.81	19.19	56.67	24.14	100
956.33	2141.96	1185.62	2500.45	130.1	5313.24	2500.45	140.9	10.41	71.85	20.35	58.66	20.99	100
242.82	674.24	431.42	1859.6	37.01	3386.78	1859.6	52.06	2.36	92.57	7.43	36.54	56.03	100
628	823.63	195.63	3834.09	32.28	5531.87	3834.09	104.08	1.98	94.46	5.54	27.04	67.42	100
2200.2	2677.62	477.41	9927.02	186.06	14598.5	9927.02	239.73	27.4	90.12	9.88	43.98	46.14	100
596.01	996.62	400.61	5981.06	14.79	6938.15	5981.06	172.02	3.47	96.48	3.52	81.75	14.72	100
147.6	252.84	105.24	326.63	7.42	493.29	326.63	3.13	0.14	92.96	7.04	65.69	27.27	100
303.63	131.29	-172.25	459.4	89.33	825.95	459.4	0.52	17.9	86.09	13.92	39.88	48.4	100
1153.06	1296.88	143.82	3159.91	75.53	6341.11	3159.91	64.06	5.88	84.1	15.9	6	78.1	100
774.03	966.82	192.78	10527.7	115.04	16556.96	10527.7	1536.31	16.08	86.11	13.89	81.98	4.13	100
99.04	189.2	90.16	3494.05	4.6	5984.89	3494.05	729.7	4.28	85.78	14.22	81.07	4.71	100
81.35	55.93	-25.42	2532.81	2.28	3086.45	2532.81	147.15	10.68	94.49	5.51	73.1	21.39	100
43.54	45.43	1.89	2689.17	1.95	3791.63	2689.17	461.68	0.08	87.07	12.93	84.06	3.02	100
550.1	676.25	126.15	1732.67	106.2	3614.98	1732.67	197.77	1.03	85.93	14.07	82.08	3.86	100
0	0	0	79	0	79	79	0	0	--	--	--	--	--
7758.56	3730.98	-4027.59	11118.04	2840.26	36244.49	11118.04	2845.02	656.83	68.88	31.12	31.86	37.02	100
7989.46	11375.63	3386.17	40222.68	1033.84	70155.25	40222.68	2832.67	1816.39	85.03	14.97	62.19	22.84	100
7823.43	11098.74	3275.31	37085.33	1029.54	60973.63	37085.33	2713.56	125.13	85.33	14.67	62.69	22.64	100
4221.19	6630.68	2409.49	12796.52	696.16	24286.3	12796.52	833.45	79.68	84.21	15.79	64.83	19.38	100
2828.2	3501.24	673.04	13761.11	218.34	20130.37	13761.11	343.81	29.37	90.4	9.6	42.87	47.53	100

EXGRPSH: Gross exports, shares by partner	EXGR_DV APSH: Domestic value added in gross exports, partner shares	EXGR_TD VAIND: Industry domestic value added contribution to gross exports	EXGR_TFV AIND: Industry contribution to total foreign value content of gross exports	EXGR_SE RV_DVAS: Domestic services content of gross exports	EXGR_SE RV_FVASH: Foreign services content of gross exports	IMGRINT REII: Re-exported intermediate imports as % of intermediate imports	IMGRPSH: Gross imports, shares by partner	FFD_DVAS SH: Domestic value added in foreign demand, partner shares	DFD_FVAS SH: Foreign value added in domestic final demand, partner shares	VALU_FFD DVA: Share of domestic value added embodied in foreign final demand	PROD_VA SH: Value added as a % of production	CONS_FV ASH: Foreign value added share of total consumption	GFCF_FVA SH: Foreign value added share of total fixed capital formation
100	100	79.42	20.02	57.9	9.25	31.49	100	100	100	28.75	48.32	15.37	24.7
100	100	1.23	0.22	14.33	6.83	21.42	100	100	100	17.83	49.49	15.25	15.25
100	100	0.65	0.14	40.74	9.63	30.79	100	100	100	36.38	33.46	18.09	18.09
100	100	20.95	9.6	22.29	13.93	31.59	100	100	100	34.63	31.55	27.32	26.43
100	100	2.21	0.49	18.87	8.37	27.28	100	100	100	16.63	34.74	18.21	18.21
100	100	1.85	0.61	17.38	12.84	33.13	100	100	100	46.2	42.52	24.99	24.99
100	100	1.22	0.33	23.26	10	28.57	100	100	100	34.19	24.61	28.44	19.11
100	100	0.82	0.17	16.16	7.54	25.67	100	100	100	44.14	36.82	17.45	17.45
100	100	0.41	0.16	35.66	14.3	29.54	100	100	100	27.73	20.25	28.13	28.13
100	100	5.03	3.87	15.74	17.72	30.57	100	100	100	37.96	27.84	47.73	36.25
100	100	1.58	2	12.8	20.32	33.24	100	100	100	35.45	23.36	55.88	55.88
100	100	2.37	1.39	17.63	16.94	31.56	100	100	100	49.72	32.79	36.99	36.99
100	100	0.35	0.23	16.36	18.95	28.7	100	100	100	31.78	29.37	39.64	39.64
100	100	0.73	0.26	18.78	10.79	21.91	100	100	100	30.86	38.3	25.85	25.85
100	100	2.34	1.07	22.5	13.76	36.1	100	100	100	41.58	38.75	24.83	24.87
100	100	0.77	0.56	20.57	17.52	38.02	100	100	100	67.77	23.25	42.19	42.19
100	100	1.57	0.51	23.73	11.37	31.58	100	100	100	37.94	42.7	24.38	24.38
100	100	1.44	0.5	20.45	11.43	36.66	100	100	100	49.25	43.67	25.96	25.96
100	100	2.79	0.84	34.47	11.41	27.06	100	100	100	39.46	33.09	22.03	23.61
100	100	1.29	0.28	40.51	9.62	22.4	100	100	100	38.64	34.3	17.96	17.96
100	100	1.5	0.56	23.88	12.78	34.48	100	100	100	40.07	32.28	27.16	27.16
100	100	2.76	1.31	32.02	14.76	31	100	100	100	53.61	22.52	31.77	32.38
100	100	0.23	0.09	22.86	12.39	26.56	100	100	100	46.44	39.61	27.93	27.93
100	100	2.53	1.22	32.8	14.96	36.67	100	100	100	55.5	20.22	32.55	32.55
100	100	1.32	0.57	20.79	14.64	25.84	100	100	100	49.84	33.67	30.03	30.03
100	100	0.25	0.13	22.43	13.34	32.65	100	100	100	25.53	26.26	33.96	33.96
100	100	1.18	0.44	58.28	11.25	28.22	100	100	100	8.83	34.17	27.14	27.14
100	100	50.88	8.79	75.84	6.93	32.06	100	100	100	38.15	59.79	8.69	12.14
100	100	22.95	3.37	76.12	6.23	36.72	100	100	100	45.21	54.13	12.97	13.02
100	100	9.01	1.35	77.25	8.4	30.71	100	100	100	32.21	52.89	13.02	13.02
100	100	13.95	2.02	75.39	6.13	33.28	100	100	100	78.8	57.8	12.66	12.66
100	100	18.71	4.44	71.64	8.71	36.49	100	100	100	64.59	50.12	13.85	15.4
100	100	16.78	4.29	69.89	9.13	37.47	100	100	100	85.66	47.06	20.35	20.35
100	100	1.93	0.15	89.39	4.43	33.42	100	100	100	36.26	54.91	7.43	7.43
100	100	0.63	0.04	92.14	3.38	30.1	100	100	100	21.48	69.31	5.54	5.54
100	100	8.68	0.94	84.13	4.76	32.95	100	100	100	26.67	68	4.6	10.3
100	100	3.24	0.12	94.59	1.71	33.25	100	100	100	16.66	86.21	3.52	3.52
100	100	1.64	0.12	89.65	3.97	32.66	100	100	100	77.41	66.21	7.04	7.04
100	100	0.05	0.01	81.85	9.06	32.41	100	100	100	28.58	55.52	13.92	13.92
100	100	3.65	0.69	73.83	7.39	33.57	100	100	100	41.04	49.83	15.9	15.9
100	100	4.28	0.69	79.48	8.01	36.7	100	100	100	9.18	63.58	11.95	6.94
100	100	0.04	0.01	78.62	6.9	34.76	100	100	100	5.41	58.38	14.22	14.22
100	100	0.06	0	90.76	2.88	33.61	100	100	100	2.21	82.06	5.51	5.51
100	100	0.14	0.02	80.91	6.19	34.48	100	100	100	1.69	70.92	12.93	12.93
100	100	4.01	0.66	79.24	8.18	36.9	100	100	100	39.03	47.93	14.67	14.67
100	100	0	0	0	0	0	100	100	100	0	100	0	0
100	100	21.85	9.87	22.75	13.82	31.44	100	100	100	33.56	30.68	28.24	26.26
100	100	56.34	9.92	75.68	7.11	32.5	100	100	100	28.28	57.33	10.55	24.67
100	100	55.16	9.48	76.12	7.01	32.62	100	100	100	29.93	60.82	10.28	11.07
100	100	41.67	7.81	74.02	7.39	31.93	100	100	100	51.82	52.69	13.17	13.35
100	100	9.21	0.98	84.66	4.67	32.49	100	100	100	25.44	68.36	4.77	9.73

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CHARACTERISTICS OF TRANSACTIONS: A NEW APPROACH

JEL classification: D02, D23, D92

Abstract

Transaction is the main concept of the New Institutional Theory (NIT). According to specialists (R. Coase, O. Williamson etc.), transactions can be described by the following characteristics: asset specificity, uncertainty, frequency, transformation costs and transaction costs. Obviously, these characteristics can be divided into two groups: internal characteristics (asset specificity, uncertainty and frequency) and cost characteristics (transformation costs and transaction costs). In my opinion, this approach has three problems: there is no place for investments (of course, they may be perceived as a part of transformation costs, but it seems to be over simplistic), there is no direct correspondence between internal characteristics and cost characteristics (one may say that there is no need for such a correspondence, but it would be logical to expect that this correspondence does exist) and these characteristics are not used as a measure of integration. I propose to consider investments as an independent cost characteristic of transaction and to establish the following correspondence between internal characteristics and cost characteristics: Asset specificity depends on investments; Uncertainty is reduced by transaction costs; Frequency is linked to transformation cost as transformation cost is based on scaling effect. Therefore, I propose to include investments into cost characteristics of transactions as a separate characteristic. Uncertainty and frequency can be used as indicators of integration of economic agents. An ordinal measure of uncertainty can be constructed on the basis of pricing mechanism used by two companies – the bigger is the share of free market factors within this mechanism, the higher is the level of uncertainty (and the lower the degree of integration).

Key words: transactions, New Institutional Theory, investments, uncertainty, degree of integration

1. INTRODUCTION

Transaction is the main concept of the New Institutional Theory (NIT). According to specialists (R. Coase (Coase 1937), O. Williamson (Williamson 1985) etc), transactions (which can be defined as transfer of the property rights from one economic agent to another) can be described by the following characteristics: asset specificity, uncertainty, frequency, transformation costs and transaction costs. Definitions of these terms are given in the professional literature (Furubotn, Richter 2000) so I will not discuss the question of their economic and organizational nature.

Obviously, these characteristics can be divided into two groups:

- Internal characteristics (asset specificity, uncertainty and frequency). Internal characteristics (one may also describe them as technical or organizational characteristics) define the institutional organization of transactions between two (or more) economic agents (Williamson 1985), (Williamson 1986), (Williamson 1989), (Williamson 1991);
- Cost characteristics (transformation costs and transaction costs). These characteristics define how much the parties should pay for their cooperation.

Representation of characteristics of transactions in two groups leads to the following questions:

- These characteristics of transactions do not include investments. Of course, they may be perceived as a part of transformation costs, but it seems to be oversimplistic. First of all, in some situations investments are not included in the price the customer must pay (it means that they are excluded from transformation costs). Second, investments do not necessarily lead to actual transactions, that is, they do not always generate transformation costs and represent frozen capital instead.

Interestingly enough, in many sources specific assets are referred to as specific investments (see, for example, (Rokkan, Heide, Wathne 2003); Williamson also talks about specific investments (Williamson 1985)), so one may think that this list of characteristics of transactions does include investments. But from the methodological point of view these terms are not synonyms – investments represent money and time spent in order to achieve a long-term result, while assets represent this long-term result, and the NIT analyzes the specificity of assets, not the specificity of investments. In other words, this is an attempt to use a cost characteristic as an internal characteristic.

This exclusion of investments is not logical because the amount of investments is one of the main characteristics of business projects. This is why I think that it is important to find a way to include investments into the list of characteristics of transaction;

- There is no direct correspondence between internal characteristics and cost characteristics. One may say that there is no need for such a correspondence, but it would be logical to expect that this correspondence does exist as one can hardly think that these characteristics are completely independent because they reflect different aspects of the same phenomenon (for example, this correspondence exists within the group of internal characteristics – asset specificity and uncertainty are closely related to each other as more specific assets require lower uncertainty). In addition, one should note that according to specialists there is a correspondence between uncertainty and transaction costs as transaction costs is paid to reduce uncertainty. So the idea of correspondence between internal and cost characteristics of transactions is implicitly present in economic literature, but, most probably due to this implicit character, it was not elaborated;

- There is no measure of integration of economic agents based on evaluation of these transaction characteristics. Williamson says that the degree of integration (or, rather, the institutional organization of transactions – market with no integration, hybrids with smooth cooperation and hierarchies with rigid integration) depends on asset specificity, uncertainty and frequency, and the model of institutional organization is chosen in order to minimize transaction costs. However, Williamson did not propose an ordinal measure of degree of integration. Neither did he say which transaction characteristic can be used as an indicator of integration. Existing classifications of integrated organizations are phenomenological (Webster 1992) which is inconvenient from the methodological point of view.

The goal of this paper is to try to give answers to these questions. The importance of these questions is not completely theoretical; they have a clear practical application as according to Oliver Williamson (Williamson 1991) asset specificity, uncertainty and transaction costs have a direct impact on institutional structure of an economic organization, while investments are a key parameter of all business projects. A transparent measure of integration is also very important as it could help us to build up a classification of economic organizations based on firm economic ground (which may be useful, for example, from the point of view of taxation).

2. CORRESPONDENCE BETWEEN INVESTMENTS AND ASSETS

Obviously, the goal of investments is to set up a pool of assets necessary for business activity. According to the NIT, the main characteristic of assets is their specificity. So the question is if the specificity of assets depends on investments.

The answer is yes. First of all, despite the fact that there is no direct correlation between the amount of investments and the specificity of assets (as

Williamson pointed out, investments can be specific, unspecific and mixed (Williamson 1985)), bigger investments generally produce assets with higher specificity (for example, with higher productivity which requires bigger orders and cannot be used for small customers). So one can say that the increase of investments can lead to increase of specificity of assets. Second, asset specificity cannot be ensured without investments – simply because assets cannot be set up without investments.

This is why I propose to consider investments as an independent cost characteristic of transactions and to establish the following correspondence between internal characteristics and cost characteristics (see Table 1):

Table 1

Correspondence between different characteristics of transactions

Internal characteristics	Cost characteristics	Commentary
Asset specificity (as relative effectiveness of assets within specific transactions)	Investments (as money and time spent to set up a pool of assets)	Investments are required to set up a pool of specific assets (assets adapted to specific requirements of target customers) in order to ensure competitiveness of the company
Uncertainty	Transaction cost	Transaction cost is necessary to reduce uncertainty and to ensure effective cooperation
Frequency	Transformation cost	Transformation cost is based on scaling effect and depends on the frequency

This distinction between asset specificity as an internal characteristic and investments as a cost characteristic is, in my opinion, very important. Investments show the amount of money (and time) spent to set up a pool of assets, while asset specificity represents the profitability of assets within different transactions, or, better, the ability of assets to generate additional revenue in comparison with unspecific assets. This distinction can be described mathematically as follows – let us use the following symbols:

I_u – unspecific investments (amount of money spent to set up a pool of unspecific, standardized assets);

I_s – specific investments;

R_u – unspecific revenue (revenue obtained thanks to unspecific assets);

R_s – specific revenue (revenue that cannot be obtained without specific investments).

The degree of specificity of investments S_I can be calculated as follows:

$$S_I = \frac{I_s}{I_u + I_s}. \quad (1)$$

Respectively, the formula for the specificity of assets S_A is:

$$S_A = \frac{R_s}{R_u + R_s}. \quad (2)$$

Profitability of assets P can be calculated as follows:

$$P = \frac{R_u + R_s}{I_u + I_s}. \quad (3)$$

The indicator A can be used as a measure of importance of specific investments for company's effectiveness:

$$A = \frac{dP}{dI_s}. \quad (4)$$

Obviously, if $A > 0$, then specific investments are effective (one may say that the specificity of investments is positive for this transaction because these investments produce positive specificity of assets). If $A = 0$, then the specificity of investments is neutral (investments into specific assets do not generate positive asset specificity – company's income does not grow), and if $A < 0$, then the specificity is negative (it means that specific investments are not necessary for this transactions, as specific assets based on these investments will not generate additional income, they will reduce company's revenue). Neutral specificity arises when customers are interested in standardized products and are not ready to pay a premium for the adaptation of products to their requirements (because they either do not have any, or these requirements are not important for them). Negative specificity of investments may appear when the company misunderstood the requirements of its customers and invested into assets that produce non-standardized products that are not suitable for customers.

These examples clearly show the difference between specificity of investments and specificity of assets.

One may object that investments are usually intended to ensure business activity in general, not an isolated transaction, so considering investments as a characteristic of a transaction can be incorrect from the methodological point of view. However, it is very important to remember that all characteristics of transactions listed above can describe an isolated transaction as well as a series of homogenous transactions (for example, frequency is rather a serial characteristic). In addition, investments sometimes can be necessary for one unique transaction.

Another objection may be that not the full amount of investment is used to ensure the specificity of assets – a part of investment can be used to form a core non-specific part of assets (for example, equipment), while the second part is used to make these assets transaction-specific (for example, to adapt standard

equipment to customer's requirements). But the same is true for transaction cost – while it is often highlighted that transaction cost is necessary to reduce uncertainty, not all transaction cost actually reduce uncertainty, which is well known fact in economics. In other words, as Williamson indicated (Williamson 1985), assets are based on investments and specific assets are based on specific investments.

3. MEASURING THE DEGREE OF INTEGRATION

Economic organizations can form integrated structures if there is a large flow of transactions between them (it means, if the frequency of transactions is high) and if they are interested in reduction of uncertainty in their cooperation (Williamson 1991). It means that the lower degree of uncertainty corresponds to the higher level of integration and can be used as a measure of integration. But can one propose an algorithm of measurement of uncertainty and frequency? Interestingly enough, such algorithms, as far as I know, do not exist, while there are many different algorithms that can be used for ordinal evaluation of asset specificity ((Anderson, Coughlan 1987), (Klein, Frazier, Roth 1990), (Malone, Yates, Benjamin 1987), (Zaheer, Venkatraman 1994)).

The natural measure of frequency (as intensity of interactions) can be calculated as a share of turnover between two (or more) companies within their total turnover. The closer is this index to 100%, the higher is the degree of integration.

Uncertainty can be described as a risk not to get expected amount of income (or, better, not to get the expected profitability rate). Obviously, this uncertainty depends not only on the specificity of assets, but also on prices (if the economic agent can set the prices or has a long-term guarantee of prices, he or she will get the expected amount of income). In other words, if the specificity of assets represents the economical basis of uncertainty, the model of pricing is its visible representation. It means that the model of pricing can be used as an indicator of uncertainty – the lower is the share of market factors in the pricing model implemented by two (or more) economic agents, the lower is the degree of uncertainty and the higher is the degree of integration. To put it simply, excluding market factors from the pricing model means excluding market tools from the model of governance of interactions and drifts towards different forms of hybrids and eventually to hierarchy. One also may say that the specificity of assets (as a factor of uncertainty) will lead to “market-free” models of pricing.

I would propose the following classification of pricing models that can be used to measure the degree of integration of economic agents (see Table 2).

Table 2

Classification of pricing models

Pricing model	Level of uncertainty	Degree of integration
No price (resources are transferred from one division to another without payment)	Zero (divisions are completely free from impact of market factors: these factors have an impact on the company in general, but not on divisions)	Absolute (hierarchy). There is no transfer of property rights: resource remains within the same organization
Intra-corporate price (prices are set up by head office for taxation and accounting purposes and have a very weak correlation with market factors)	Small (market factors have a small impact on economic agents)	Strong. Divisions have some autonomy but key strategic decisions are taken by head office. Divisions may not cancel intra-corporate contracts if market price changes
Long-term contract prices	Medium (economic agents are protected from small changes of prices)	Weak. Economic agents cooperate, but are legally independent from each other. They may cancel contracts if market prices change dramatically
Market prices	Zero (no protection from market prices)	Zero (independent economic agents)

Of course, this classification is not exhaustive. However, it gives a general idea about using pricing models as a tool of measurement of uncertainty and degree of integration.

An interesting example of exclusion of market factors from pricing (or, better, pricing and payment) model is Gazprom pricing strategy. It uses prices fixed for a certain period, but in addition it applies the “take-or-pay” principle which means that Gazprom partners must either purchase the contracted volume of gas or pay for it. This behavior can be easily explained by the necessity to protect highly specific investments into such assets as gas holes and pipe lines. One may say that the “take-or-pay” principle in case of absence of actual gas purchase represents an artificial transaction where a payment occurs without property right transfer. In other words, this model eliminates risk for the supplier thanks to

4. CONCLUSIONS

The results presented above are preliminary and theoretical. But they clearly show that the investments should be analyzed as a separate cost characteristic of transactions in addition to transformation costs and transaction

costs. To put it simply, one should speak not only about the specificity of assets (as a parameter of transaction having a great impact on model of governance (Williamson 1991)), but also about the volume of investments as a key parameter that determines effectiveness of business. I propose to distinguish the specificity of assets (which I understand as an income characteristic of transaction, that is, as the ability of assets to generate additional income) and the specificity of investments (which is a cost characteristic). Basically investments into innovations are investments into specificity (this is why they are very risky in the beginning as the degree of their specificity and uncertainty is very high, but this specificity helps to set up a unique competitive advantage that cannot be reproduced by possible competitors).

I also maintain that the pricing (pricing and payment) model used in interactions between economic agents can be used as an indicator of uncertainty and a measure of degree of integration of these agents. One may say that “no price” model corresponds to hierarchy, market price – to interactions based on market, while other pricing strategies that lay between these poles correspond to hybrids.

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BOSNIA AND HERZEGOVINA MANAGEMENT COMPETENCIES FOR ACCEPTING EU FUNDS

**CAN EU FUNDS HELP IN DEVELOPING BOSNIA AND
HERZEGOVINA ECONOMY, AND HOW TO MAKE THEM
AVAILABLE TO BUSINESS ENTITIES**

JEL classification: F02

Abstract

The main question the paper wants to answer is can EU funds help in developing B&H economy, and how to make them available to business entities. Bosnia and Herzegovina is one of the least developed countries in Europe, and it is a country that has not progressed when it comes to transition process and the EU accession. The conducted research on management in companies (corporate management), on officials in government bodies and parliamentary parties (state management), and also on students, point to possible solutions; how to stop the negative trends in business, employment and poverty, as well as how to speed up the process of the Euro Atlantic integration of B&H. One of the basic results of this research concludes that B&H presence in Europe is not a problem, but the fact that Europe (its value, social and economic systems) is not present in Bosnia and Herzegovina. Structural reforms and faster transition can create conditions for a faster economic development, and using EU funds for those purposes and (especially) for economic

development can simultaneously be a motivation for a faster social and economic transition and the accession of B&H to the EU. Management in private companies are undoubtedly oriented in that direction, they expect the right preconditions and environment in order to be able to apply for EU funds. Those possibilities will mostly depend on the capability and efficiency of the state management¹. Therefore, there must be a persistent program for increasing the efficiency of the state management in B&H and for speeding up the EU accession process.

Key words: *Stabilisation and Association Agreement, EU funds, IPA, EU programs 2014-2020 (Cosme, Europe for Citizens, Horizon 2020, Erasmus plus), state management and corporate management*

1. STABILISATION AND ASSOCIATION AGREEMENT (SAA)

Economic development in B&H can be evaluated based on the following data. Gross domestic product (GDP) was 13.445 billion euro in 2014², and GDP per capita was 3.508 euro (or 4 700 \$). The cost of exported goods amounted to the value of 4.286 billion euro, while imported goods were estimated to 7.756 billion euro. There was a deficit in foreign trade amounting to 3.472 billion euro. Public debt amounted to 5,3 billion euros, and external debt was 3, 6 billion euros. Average net salary of the employed was 423 euro, employment rate was 31, 7% while unemployment rate equalled 27, 5%. B&H is officially pro-European, and the first step towards the EU is the enforcement of the Stabilisation and Accession Agreement (SAA). The enforcement is expected to start on 1st June 2015. SAA represents a basic framework of the EU politics towards B&H and opens the possibility of becoming an EU member state.

The agreement offers great support but also sets certain political and economic preconditions, with great emphasis on regional cooperation. B&H must balance its political, economic and institutional development based on EU principles and values. For these purposes the EU uses several instruments in order to strengthen political, economic and institutional relations needed to prepare for the EU membership. Those are European Partnership, financial and technical support and other EU programmes, as well as political dialogue, which includes cooperation between the judiciary system and internal affairs, and cooperation in the context of Common Foreign and Security Policy.

Besides general principles, the SAA provisions include agreements on cooperation and mutual obligations in areas also related to economy. The SAA also includes appropriate annexes and protocols which are used to improve the

¹ The management of public institutions

² EUR=1,955830 KM

cooperation and relations, and support the enforcement of the agreement and accession process. Provisions of the Temporary Agreement are also included in the SAA, while the Temporary Agreement was signed to avoid the long ratification process in all member states. The goals of the SAA are the development of political dialogue, the beginning of gradual coordination between national judicial system and *acquis communautaire*, the promotion of economic relations, gradual development of free trade zone and motivating regional cooperation in the context of stabilisation and accession process. The agreement gives the signatory states the status of a potential membership candidate, and the provisions of the European Partnership (enforced by the EU summit in Solun in 2004) have established short-term and medium-term priorities as a list of obligations which will be used to evaluate the progress of B&H towards the EU.

2. FINANCIAL SUPPORT

Financial support for the activities in the process of accession is provided by the IPA programmes (Instrument for Pre-accession Assistance) which were established by the EU Council Regulation on 17 July 2006, for the period from 2007 to 2013. IPA instrument is a part of the package of EU foreign affairs which is used to rationalize and simplify the procedure and improvement of coordination of EU activities in the process of accession. The goal is the inclusion of all the support activities in an individual framework and the unification of regulations. IPA has replaced former support instruments such as: Phare, ISPA, SAPARD, CARDS, and Turkish accession fund. IPA instruments foresees two groups of users with special emphasis on potential candidate states. IPA helps them to prepare for candidacy by continuing with the similar support components such as CARDS, and it tries to assist candidate states in the preparation for the EU membership. The IPA instrument is made up of five components; potential candidate countries are eligible only for two components, and candidate countries are eligible for all five components of IPA. These components refer to the assistance for transition and institution building, includes help for regional and cross-border cooperation, support for the regional (economic) development, human resources and rural (agricultural) development.

3. AVAILABLE POSSIBILITIES OF USING FUNDS FOR B&H

Considering the current status it has in the EU, Bosnia and Herzegovina has possibilities of using resources form IPA funds and from the EU Programme 2014-2020.

3.1. Possibilities of using IPA funds

Bosnia and Herzegovina can use IPA funds for conducting reforms during the preparation period for the EU membership, as well as for institution building, for socioeconomic and regional development, for employment, social policies, education, promotion of gender equality and development of human resources, for agricultural and rural development and for territorial cooperation. Considering the fact that B&H has not yet met all set conditions (institutional and legal) for using the funds (and help), there are limitations for agricultural and rural development as well as for regional and territorial cooperation.

3.2. Possibilities of using the funds from the EU Programme 2014-2020

It is basically possible to use resources from funds like COSME (projects), Europe for Citizens, Horizon 2020 and Erasmus Plus. Certain activities have been done in order to apply for the funds, however, there are no guarantees that they will officially be available, or that preconditions for them will be fulfilled. Among other EU 2014-2020 programmes there are guarantees that they will be available after the Ministry of civil affairs of B&H shows interest for the funds and after appropriate proceedings have been conducted.

3.3. Evaluation of possibilities for B&H

Real possibilities that B&H has can be revealed by the fact that prior to the signature of SAA between B&H and the EU in 2008, there had been negotiations starting from 2005. The SAA has not yet come into force because B&H has not fulfilled all the set conditions. B&H signed and ratified the agreement but has not implemented it, nor the court decision by the European Court for Human Rights in Strasbourg, and other conditions have not been met.³ In the report on progress⁴ it is concluded that there is an evident stagnation and delay in B&H's way towards the EU, that European intercession has always been present and has never been questioned, the rapporteur for B&H, Doris Pak, determines that „it is impossible to help those who do not want to be helped, the main problem is the lack of will and cooperation between political leaders in B&H“, and furthermore adds: „I cannot predict any changes in the future, I have recommended to European institutions and the Commission to make the leaders

³ Earlier conditions were changed by the latest EU initiative resulting in the signature of a Statement by BH officials and politicians (in December 2014) on EU accession and its adoption in BiH Parliament (end of February 2015), and new conditions were set which should be fulfilled in the first half of 2015. After that the SAA should come into force (the court decision by the European Court for Human Rights in Strasbourg should also be implemented)

⁴ The European Commission publishes regular annual reports on the progress of each candidate country or potential candidate country

realize this and do what they must do. They come to Brussels, sign an agreement, and go home and nothing happens“. She also states that there has been a strong impression that the politicians in B&H do not want to work towards the EU and they seem like they „do not care for their people as much as they do for their pockets“. ⁵

4. STATE MANAGEMENT

Having government authorities on the state level, two entity, ten cantonal, four city and 139 municipal governments, B&H is in a group of countries that have large state administration, and it is possible it is the leading country in that country group. There are 184 148 employed people in state, entity, county and local governments and in the Brčko District, which, when compared to the total number of employed (685 294), means that every third person in B&H works in a government or its administration. ⁶ The same sources show that in the FB&H government (not including ministries) there are 94 workers, and 15 ministries (they employ from 36 to 260 people) employ 1 000 people, which means that 1094 workers are financed from the budget and their salaries amount to about 216 million a year.

The administration in ten counties, companies and institutions that are financed from county budgets hire at least 50 000 people, and in the Republic of Srpska 73 550 people work in the public sector (from the total number of 239 986 of the employed). Besides this, it is estimated that among 78 boroughs in B&H, in 61 boroughs in RS and city councils and offices of the Brčko District, Sarajevo, Banja Luka and Mostar, as well as in „accompanying“ municipal administrative institutions, there are at least another 10 000 employed people. MMF estimates that total earmarks for the public sector in 2013 equalled 3, 312 billion KM for salaries and benefits, and 2, 833 billion for material expenses, that is, 6, 145 billion KM in total or 23% of the GDP, while subventions for public companies amount to about 400 million KM ⁷ a year.

It is especially worrying (according to the same source) that since 2008, 37 182 people have lost their jobs in the economy domain, and there have been 15 690 new employments in the sectors of government, social security, education, health care and others (which are financed from the budget and non-budget funds). According to the research done by MMF it can be concluded that private companies do business more successfully than the state-owned companies, that $\frac{3}{4}$ of state-owned companies operate at a loss, whereas only $\frac{1}{4}$ of private companies operate at a loss, that the public sector is huge ⁸, larger and even more significant

⁵ <http://www.dw.de/bih-pet-godina-sporazuma-o-stabilizaciji-i-bridru%C5%BEivanju-eu/a-16884829>

⁶ <http://www.vecernji.ba/svaki-treci-zaposlenik-u-bih-radi-u-javnoj-upravi-954862>

⁷ <http://radiosarajevo.ba/novost/161413/svaki-treci-zaposlenik-u-bih-radi-u-javnoj-upravi>

⁸ Among 284 large companies in F BiH, none of them have been privatized, and the situation is the same in the Republic of Srpska

than the private sector (which is the opposite of the concept of market economy where private ownership has a dominant role), that public (state) sector reduces development possibilities of the private sector, that salaries in the public sector are higher than in the private, that all of this attracts young and competent people who see greater opportunities in the public sector, politics or political parties rather than in the private sector or entrepreneurship, which will cause an even worse negative effect on economic development.⁹

The efficiency of state management cannot be considered positive even when it comes to privatization, which is not being realized because it does not suit political parties. However, it is known that such companies cannot survive on the market economy, that except some of the companies that must stay public, others must be privatized. These companies cannot operate or survive without money, while creditors will not finance them unless the ownership structure is defined. Otherwise, the companies will fail and can only survive in this way¹⁰ if they are financially supported by the budget and taxpayers, but these resources are not unlimited and will not be available for a long time. Privatization is mentioned only when they are forced to ensure financial resources in budgets (“to sew the budget holes”) or when they have other (personal or partisan) motives, however, privatization is almost never mentioned as a necessity because non-privatized companies slow down the establishment of market economy with the dominance of private ownership as well as economic development.

They behave in the same way when it comes to the EU accession. According to the research results in areas mostly populated with Croats, 63% of them support B&H accession to the EU, 18% stated they do not wish that (because Croatia’s accession to the EU has not led to the increase of standard of living, because the situations in Greece and Slovenia are not favourable, as well as in some other member countries), 19% said they “did not know”. In areas mostly populated by Bosniaks, 47% are pro-European, 37% are indecisive, and 26% are against the accession (most of those are “for some other options”). In areas with mostly Serbian population only 19% supported the accession, 36%¹¹ were against it, a 46% did not state their opinion. Regardless of public support for the accession by all government officials (politicians) among all constituent peoples, research shows the opposite. Almost every third (32%) politician stated they did not support the accession with the following explanations: “it is not still the time for that”, “B&H is not ready”, “there are other options”, “we need to wait and see what happens to the EU” and similar.¹² So it could be concluded that

⁹ <https://renesansa.wordpress.com/2014/10/16/struktura-zaposlenih-je-mozda-najveci-problem-bosne-i-hercegovine/>

¹⁰ Mostly under state ownership, but they are not public

¹¹ Most respondents among these 36% prefer stronger relations with Russia, and the others are against it because NATO bombed areas with Bosnian Serbs (1995) and Serbia (1999)

¹² According to the research results, politicians publicly and formally support EU accession because they assume it suits the citizens and because they do not want to be criticized by the International Community, but in reality they are against the succession for personal reasons (because of the

politicians are only formally pro-European, and in reality they do everything so B&H would not join the EU or to keep the present situation for as long as they can because it suits them (on a personal or partisan level). This is the only way to explain the reasons why conditions for the SAA enforcement are not being fulfilled, why legal acts which are in accordance with European acts have not come into force, while legal acts (on public procurement and criminal law¹³) which do not include recommendations by the EU representatives and other international authorities and institutions (Moneyvala¹⁴) have come into force.

5. CORPORATE MANAGEMENT

Regarding the ownership structure, there are mostly private companies and the fewest public companies. Between these two groups there is a reasonably large number of companies that have a special status. Officially, they are state-owned (in the former system they were social) and should be privatized or become public. Also, there are companies under mixed (state and private) ownership. In accordance with this, positions and capabilities of management differ as well as their influence on business, and especially their strategic decisions and future business operations.

5.1. Management in private companies

There is a reasonably small number of private companies from the former political system, fewer privatized companies in the process of so called small privatization and a great number of newly established private companies. These new companies are numerous and make up 90% of all companies, but they participate in GDP and employment by less than 50%. From the total number of these companies, 19% operate in the production or production-service industry, the rest of the companies are in the commercial business, gastronomy and others. According to the total income and profit it can be concluded that there is a small number of large (wealthy) companies and the greatest number of small (poor) companies that barely “survive” and have uncertain future.

Management in large companies act logically, rationally and is market-oriented. The management use market possibilities to earn money quickly and easily, they implement strategies of “milking” and “draining” the profit under conditions set by market and economic environment. They do not miss out on opportunities to make profit when they think it is not illegal (83% respondents),

acquired wealth or other reasons) and because they do not want to implement EU regulations and practice, and they try to postpone their implementation as longer as possible

¹³ The criminal law, which has not yet been enforced, that led to BiH not fulfilling conditions for avoiding the “black list” of financial transactions from abroad (and within the country)

¹⁴ Committee of Experts on the Evaluation of Anti-Money Laundering Measures and the Financing of Terrorism

and some respondents stated that their first capital was gained by not settling their liabilities (21%), while 32% of them think they should have paid more, but that they did not pay “because nobody forced them to do it” (42%) and that because of it they do not feel guilty “having invested in their capacities and human resources” (63%).

Almost a third of private companies (32%) implements the strategy of “survival” (survival on the market), even if they must avoid paying taxes or must conduct illegal employment, and 57% declared that their main profit are “uncovered liabilities”, that is, “it would not pay off to work” (49%) and they would be at a loss if they had to pay all their liabilities.

The small number of wealthy companies are seen in a negative¹⁵ context connected to abuses and economic crime. According to the research results, the management in these companies are not satisfied with the economic climate (88% of respondents), and only 12% stated the climate was good and that it suited them. More than 60% stated that they had clear visions about the future of their companies and development programmes, that they had access to human resources and other potentials for using pre-accession funds, that they had prepared projects for using the funds (73%) and they waited for the funds to be available to use. Some managers in the larger (wealthier) companies do not even think about the future, 11% think they “will not have the need to work in the future”, and the most important issue for the smaller (poor) companies is “how to survive day by day” (54% of respondents).

5.2. Management in non-privatized companies

The situation in state-owned companies (former social companies) is not satisfactory. From the total number of 1 234 non-privatized companies with the estimated worth of 19, 3 billion \$, 84 of them have 60% of the total estimated value of non-privatized companies. Some companies are not even active or they operate with small capacities, many of them were destroyed in the war, and some (even those not destroyed in the war) have not even started to operate because they are not adjusted to the market economy. For their business operations and development they need financial resources, they cannot find them (except for public companies) nor will they be able to unless they are privatized. However, privatization has not started due to political reasons, or there have been cases where it has started but privatization process did not suit employees (93% respondents) nor the public (97% respondents). The procrastination of privatization leads to property deterioration, it prevents employment, reduces

¹⁵ There are negative connotations because of tax avoidance, illegal employment, the connection with non-privatized companies and government bodies where state (public) capital is transferred to private accounts, and consequently making large companies even wealthier and enabling smaller ones only to survive

property value¹⁶ and loses market positions in the area where they existed, and all of this will have negative effects on the future business.

In these companies, the management hold a special position and status. For them, the present situation is not durable (63%) and must be changed. Possible solutions are to re-register and become public (76% of respondents) because it is “the safest way to pay salaries and maintain present level of employment”, or to be privatized (24%), which they do not consider a good solution from the point of view of employees because that would jeopardize their income would result in fewer employments. The management cannot be independent in making decisions because it is under strong political influence by officials in government bodies who appoint them, as well as under supervisory boards through which they realize their (partisan) interests and goals.¹⁷ Objectively, the management cannot do much to increase business success, and have no responsibility¹⁸ for that except the moral one, if they do not abuse their position and power. They can hold their current positions only in exceptional cases because otherwise they will be replaced by new owners.

Their role is limited only to a transition period, and consequently, they cannot have greater influence on business strategy after privatization process because someone else will deal with that. They do not have any plans or programmes for using EU funds, and their public image is very negative. They are being resented for not doing business successfully, for not stepping up the production and increasing employment rates, and a significant number of respondents (49%) believe that management in these companies seek for reasons to postpone privatization in order not to lose their positions and jobs. If they engage in privatization planning, they are accused of personal gain (32% respondents), and when they do not do it, once again they are resented for affecting price cut which could benefit themselves and the new owners (23% respondents), or they are accused of maintaining the “status quo” because it suits them (41% respondents).

5.3. Management in public companies

The group of public companies consists of a greater number of small (community interest companies) and medium-sized companies, and a smaller number of large (strategic) companies. They belong to different business domains including post office, telecommunication services, electric power industry,

¹⁶ Which suits future owners

¹⁷ Employments are based on partisanship regardless of business results and successes, even when business is done at a loss because the loss is compensated by the budget (public) means. Employees are not let go even when they are redundant (to protect election votes). A special problem is that in such companies, through public procurement, one can “extract” (and do money laundering) money for various purposes, political parties and activities connected to corruption and other negativities listed in the progress reports

¹⁸ They are answerable to the supervisory board appointed by the government (politicians)

railway, roads and others, as well as companies that exploit natural resources such as mines, forests, minerals, raw materials, land and other. Large public companies mostly do business successfully thanks to the monopoly they hold and to the greatest capital and assets at their disposal.

According to the research results, these companies have surplus employees (from 15% to 35%) and with every new government (parliamentary parties) the management in these companies change and significantly increase the number of employed people. Business success is “disguised” by high (monopoly) prices approved by government authorities and by investment into infrastructure and other objects. This demands enormous budget resources (non-transparent¹⁹) and resources from international, banking and other sources with appropriate warranties from the government. Because of their position (and significance) they have a special (non-market) treatment so the accusations towards the management in these companies are likewise directed towards the cooperation with private companies and government authorities, the cooperation exists in order to finance projects that are not in the social or public interest (41% of respondents). The criteria for the selection and appointment of managers in these companies are not competence and capability, but partisanship (84%).

Their success is measured and evaluated by partisan criteria (their obedience and loyalty to the party) and not by how much they work in the interest of public and society in general. That is why, from the social point of view, any measure should be taken in order to depoliticize and professionalize the management, so that they could operate with a minimal number of competent and qualified staff with appropriate salaries (salaries not being higher than in the private sector) in the interest of the public by making the fewest costs and operate with prices which would protect citizen interests the most.

5.4. Management in companies under mixed ownership

The group of companies under mixed ownership is the smallest and consists of a smaller number of (recapitalized) companies that used to be state-owned, i.e. social, and in which private capital has been invested. Some of them have a greater proportion of private capital, while others have more state capital. There are different reasons for their establishment, which are probably related to the expected privatization and to the creation of desirable positions for privatization of the remaining part under state ownership. The roles, positions and possibilities of management are not the same in the existing companies under

¹⁹ In the progress report by the European Commission there is a statement that “BiH has not taken measures to ensure competitive and transparent steps in the sector of public-private partnership, that the implementation of the new Law on public procurement must be enforced as well as the adoption of sublegal acts, that the capability in investigating criminal acts in economy, financing and public procurement is limited and there is a strong reason for introducing specialization within the police and the judiciary system in fighting against corruption”

mixed ownership, mostly private or state ownership. In companies having greater percent of private ownership, the management have additional tasks (besides regular ones) and obligations, how to gain benefits from the state-owned part, or how to privatize that part. In companies under mostly state ownership, the management have equal tasks and obligations as in state-owned companies, that is to serve in the interest of the political parties in power (86% of respondents) and “help” (“be at service to”) those who plan to privatize those companies (59%).

6. CONCLUSION

Regarding a company's structure, different positions, roles and capabilities of management in these companies, and taking research results into account, it can be concluded that in private companies and those under mixed ownership where private capital is greater, there is management competency to accept EU funds, but the resources cannot be used. It has also been shown that such competency does not exist in non-privatized companies and companies under mixed ownership which mostly have state capital. Taking this into account, one cannot expect faster and more significant economic development because companies, which are the grounds for this development, have not been given conditions for that. Private companies are not dominant and cannot significantly influence economic development, the management in non-private companies are not independent, they are under strong influence of the government, they do not support economic development and they even slow down the process. Moreover, the inefficiency of the state management supports the bad situation and even more serious backwardness. The problems lie in a slow and inefficient privatization, and therefore, the influence of those who slow down the process should be diminished. They do this in order to maintain their positions and hold power, to protect their interest in non-privatized companies and to maintain the “status quo”. The private sector should be made dominant in the economy, and the management in non-privatized companies cannot be the bearer of the development strategy. By removing the obstacle to the EU accession process, by enforcing the SAA and by beginning the EU accession negotiations, there will be preconditions and possibilities for more efficient corporate management because it will be possible to use pre-accession funds, which are still not available to economic entities. Even more positive effects will be visible in creating conditions for market economy which is momentarily euthanized by the inefficiency of the state management.

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THE SOCIAL ASPECT OF THE INVESTMENT EFFECTIVENESS ANALYSIS

JEL classification: B4, D61, E22, O22

Abstract

The aim of this paper is to highlight and to point out the importance of the evaluation of the investment project regarding the social aspect. The authors explore aspects of social cost-effectiveness assessment of the investment project, i.e. the impact of the investment on the overall economy, which depends heavily on the size and nature of the project and the amount of funds involved. This is why it is necessary to create economic and financial evaluation of investment projects from the viewpoint of society, or total economy, with special emphasis on the analysis and evaluation of the contribution of investment to regional development. Methodological planning and evaluation of return on investment, with special emphasis on the socio-economic dimension of investment, in the paper and associated with that considers the problems of divergence of private and social costs. The paper also points to the importance of a clear definition of the overall investment project in the very beginning of its economic and financial analysis, which is crucial for a proper assessment of the social effectiveness due to "cover up" social benefits and costs that may not be subject of direct trade off. The basic hypothesis of the paper stems from the stated and can be explicated as: adequate analysis and assessment of the social aspect of the effectiveness

of the investment project significantly contributes to the regional economic development.

Key words: social and private costs, investments, regional development

1. INTRODUCTION

Cost-effectiveness study of an investment project, that could be considered an economic study from the point of the very project, has for its goal better and more precise estimation of the movement of incomes and costs through duration of the investment project and it indirectly reflects position and role of the project on the market and it is based on market prices of inputs and outputs. Every project, every investment at the same time influences whole economy in broader and narrower meaning of the entity. Namely, economic, financial, ecologic, social, demographic and other effects of an investment are moving in concentric circles on social-economic life of the community. Strength and influence of these investment effects primarily depend on character and size of the very investment, as well as on quality and size of the economic context. Therefore, besides the study of the cost-effectiveness of the very investment project, it is also important to carry out an economic study from the whole economy point, i.e. to make a complex study of the social cost-effectiveness.

The influence of an investment to the economy is defined, in broadest sense, as a relation between profit and costs, and in this way investment project and its borders are clearly defined. At the beginning of the analysis of an investment project it is necessary to clearly and precisely define the project itself, because profit and costs may have, and very often do have, different appearances and at the same time they may be and do not have to be part of market exchange, so they can easily slip analyst attention. Cost-effectiveness study (profitability study) of an investment project is quite complex and hard work, demanding high precision and gradual work, which consists of three main steps: 1) identification of benefit and costs, 2) evaluation of benefits and costs, 3) application of adequate investment criteria and methods of evaluation.

Generally speaking, each comprehensive economic-financial study of an investment project should comprise evaluation of the profitability from three aspects: profitability of the very investment, which has to give an answer of the economic sense of the very investment; then profitability of the investment from the investor's point of view, and finally profitability of the investment from the social point of view, where the broadest influences of the project are being observed and evaluated.

The purpose of this research is to point out the importance and necessity of conducting detailed, professional and fair cost-effectiveness study of an investment project, as a basis of a quality and long-term sustainable regional development.

The aim of this research is to contribute achieving of universal awareness of the importance of making profitability studies as an indispensable part of each investment project.

In order to obtain the aim and purpose of this research, we set out starting hypothesis that can be expressed as follows: evaluation of the social profitability of an investment project is indispensable part of each investment elaborate on profitability and is an essential condition of a long-term, well-balanced and sustainable development.

2. DIVERGENCE OF PRIVATE AND SOCIAL COSTS

Main reason for special cost-efficiency study of an investment is necessary from the social point of view, lays in differentiation of private and social costs which sometimes completely contradict each other. The importance of this statement can be supported by following statement: *divergence of private and social costs is one of the most important reasons for intervention in free market economy*¹ (Lipsey, p. 433).

This brings us to the logical question: how to establish intensity, measure and modalities of the intervention in 'free market' and why Smith's 'invisible hand' should be guided? In order to give at least partly satisfactory answer, we have to define basic terms in this part of research: 'private costs' – 'social costs' inspired by considerations from the above mentioned book (Lipsey, 1975).

Private costs measure opportunity expenses of resources that are used by certain firm, which are based on alternatives it has on its disposal. If there is no alternative to these resources from the firm's point of view, the value of private cost equals zero. Calculation of the private cost is based on market value of the production factors obtained in certain period of time and on the price that could be obtained for selling these factors owned by the firm on the market.

Social costs are measured as opportunity cost of the whole society of these resources that are used by the firm in its business and development. Opportunity cost is defined and determined with the availability of the alternative resource. In case when a firm is using (spending) resource(s) for which, from the social-interest point of view, there is an alternative use, than social cost equals the value of the resources in its best alternative use.

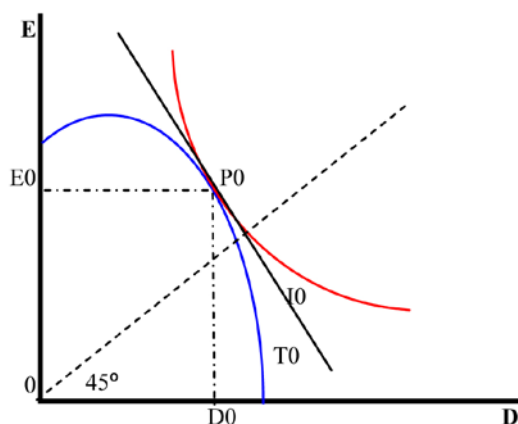
Basic problem is how to make peace between the two i.e. cut down or at least significantly lessen divergence between social and private costs, i.e. social and private interests. Smith's thesis on harmonizing these two interest on a market where maximizing of private interest would automatically and to the best contribute to general social interests did not survive the test of global capitalism on one side and growing awareness of the importance of social interest on the other. In case when divergence of social and private costs can be clearly

determined and measured it is possible to conciliate or cut down divergence by introducing taxes, contributions, supports or compensations. In case when social cost is higher than the private, disproportion can be removed by introducing additional or higher taxes or contributions, while in opposite case same role of conciliation is granting supports or compensations. From the previous definition, i.e. explanation we came to already mentioned necessity of intervention in so called free market. On the other hand, practically unsolvable case appears when it is impossible to establish divergence of the costs, thus not being possible to measure it quantitatively. In such cases it is impossible to conciliate (cut down) possible divergence between costs by simply introducing taxes or granting supports and incentives, since the size, value and direction of the divergence are not known. There is an additional problem, since often social costs generate private benefit, or in other words: private benefit spends social resources without adequate or any compensation whatsoever, thus generating large social costs. From the above mentioned it is obvious that intervention in market does not mean only state intervention (taken in broadest sense of the matter) in favor of social and against private interest, but also vice versa, depending on the direction of the divergence. After all, taken from the long-term point of view, cutting down the divergence between social and private costs is interesting to the firm's prosperity and realization of its goals, as well as interesting to the society as whole, since existence of constant and strong contradiction between social and private interest brings no good to anyone. Eliminating the divergence between private and social costs means conciliation of social and private interest, which is necessary condition for long-term and steady economic development to everyone's benefit.²

3. DEFINING OF THE SOCIAL PROFITABILITY OF AN INVESTMENT PROJECT

In this part of the research we would try to expose basic methodology for studying social profitability of investment projects, with necessary theoretical explication.

Basic definition observes efficiency as a contribution of a separate element to the goal function and by accepting this general definition we can say that social profitability of a given investment project could be defined as a level of contribution of an investment to development goals. Off course, development goals are multiple and different and they could be complementary, neutral or even contradictory to each other. For the purpose of this research we shall disregard the fact that in long-term all the goals are closely connected and we shall observe this problem on the short-term basis, so that an arbitrary division in social and economic goals can be done. Accordingly, definition of social efficiency (profitability)³ is optimal contribution of the investment to social and economic development goals. Such a wanted optimum between social and economic goals is illustrated by the following graph (Graph 1)



Graph 1: Optimal combination of choice between different goals

Source: *Problems of Economic Development and Economic System of Yugoslavia – Economic Institute – Zagreb, Informator Zagreb, 1982 (p. 120).*

Marks on the Graph have following meanings: E economic goals, D social goals, I0 social indifference curve, T0 social possibilities curve, P0 intersection of the curves I0 and T0, where condition of balance between marginal rate of substitution and marginal rate of transformation is reached, so there is a tangent on both curves. Tangent inclination on curves I0 and T0 in the point P0 is marginal rate of substitution and marginal rate of transformation, which means that in this point an optimum solution is reached, i.e. social optimum⁴. (Problems of Economic Development and Economic System of Yugoslavia, p.121)⁵

For clearer and easier distinction of market and social efficiency, it is necessary to define elements of the efficiency (profitability) evaluation of an investment project, so this is done in the following table (Table 1).

Table 1

Elements of the Market and Social Efficiency Evaluation

No.	Assessment Elements	Market Efficiency	Social Efficiency
1.	Efficiency Assessment Criterion	Effects of the Project to Firm's Profitability	Effect of the Project to Economic Development
2.	Scope of the Effects	Direct Effects of the Project	Direct and Indirect Effects of the Project
3.	Prices for Assessments Of the Effects	Market Prices of Inputs and Outputs Of the Project	Amended Prices of Project Inputs And Outputs
4.	Investor's Time Preferences	Individual Preferences	Social Preferences

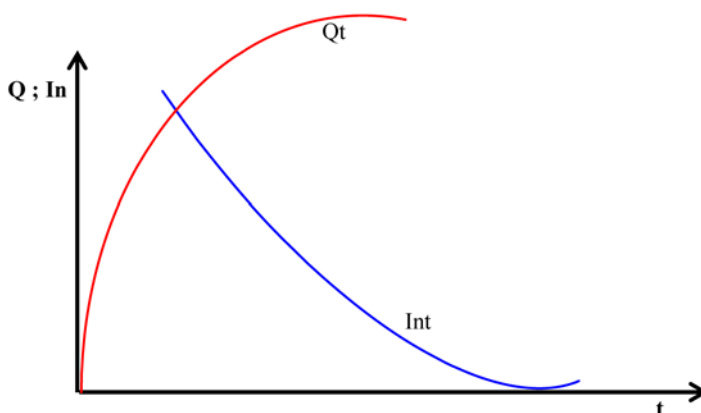
Source: According to: *Manual for Planning of Investment Projects - Bank Association of Yugoslavia, Economic Institute – Zagreb, Economic Press – Beograd, 1981 (p. 481)*

Based on distinctive criteria presented as above, we can create models for definition of basic elements for assessment of social efficiency of an investment project and its influence on development of a city, region or the whole society.

3.1. Investment Accelerator

The Principle of the Accelerator is long known, from the works of A. Aftalion, R. Hawtrey and especially J. M. Clark, who came to the conclusion that acquisition of train pool varies more in dependence of changes than of the level of train traffic activity, based on fluctuation of the train traffic in correlation to acquisition of trains.(Clark J.M.1917). J.M. Clark defined a simple principle of acceleration by relating capital funds (Kt) and production level (Qt) in a certain period of time, i.e.:

$$v = Kt/Qt \quad (1)$$



Graph 2: Simple Principle of the Accelerator

Source: Petrašinović P; Niketić R. – *Economic Models of Investment-BIGZ, Beograd, 1980 (p.71.)*

Mathematic definition of the Accelerator Principle (v) and its graphical explication (Graph 2) clearly shows that investments are proportional to changes in production, i.e. if there is a fall of production level or it is constant, significant fall in new investments occurs. Naturally, such a simple principle of acceleration could be strongly criticized⁶, but still it shows great importance of new investments for growth and development. Moreover, it shows that accelerator is inoperative at higher level of unused capacities that should definitively be considered when planning new investments in accommodation capacities in Dubrovnik-Neretva County.

3.2. Basic Criterion of the Study

Evaluation of the very investment from the social point of view - the same methods are used to evaluate social efficiency of an investment project like when evaluating efficiency of the project itself:

1. Method of Net Present Value (NPV)
2. Method of Internal Rate of Return (IRR)

Important difference between the two is that data for evaluation are extracted from previously composed, so called social-economic flow of the investment project⁷ which is an approximation of the effects of the project to creation of the social wealth⁸.

a) Net Present Value (social) of an investment project can be determined by following formula:

$$DNSV = \sum_{n=0}^t NPDT_n^d \frac{1}{(1+rd)^n} \quad (2)$$

Whereas: $NPDT_n^d$ = net incomes of social-economic flow

rd = social discount rate

n = years (periods) of duration of the investment project

b) Internal Rate of Return (social) or economic rate of the income of an investment project is determined by following formula:

$$0 = \sum_{n=0}^t NPDT_n^d \frac{1}{(1+rd)^n} \quad (3)$$

Whereas: $NPDT_n^d$ = net incomes of social-economic flow

rd = social discount rate

n = years (periods) of duration of the investment project

c) Social Discount Rate which represents discount rate in so called economic study of a project is a result of time preference of a society considering a choice between social benefits and costs in future periods and in present time. One of the important roles of this rate is in optimal allocation of production elements from the society's point of view. Since in every investment project a certain grade of risk exists, we should consider it when determining social discount rate. Although there are various approaches to determine social discount rate, one of the most commonly used is taking pondered average interest rate on long-term loans, which could be determined by following formula:

$$rd = \alpha k^P \quad (4)$$

Whereas: k^P = average interest rate to long-term loans

α = risk premium

If there are different interest rates on loans, then k^P

$$k^P = \frac{\sum_{i=0}^n K_j^s}{\sum_{i=0}^n K_j^s} k_j^s \quad (5)$$

Whereas: K_j^s = amount of a loan

k_j^s = applicable interest rate

j = a loan

3.3. Influence of an Investment Project to the Regional Development

In previous studies of social efficiency, consideration was directed to influence of an investment to the whole society, i.e. the influence was considered on a national level. Of course, distribution of the influence should not have to be equally distributed and some investments does not have to have primary national influence, which leads to influence of and investment project on a regional level, because it reflects new development opportunities for a certain region. In such context, location and size of an investment project plays a very important role.

When studying social efficiency of an investment project, it is very important to establish if it is a project of a national or a regional character project. In first case, we should consider so called spillover effect of the project, and in second case, when estimating social efficiency, the whole study should be observed just like it is a project of a national importance, but with limited, regional reach. Generally taken, regardless of the above distinctions, each project, regardless of its size and importance, has certain influences on its narrower and broader environment, so that each investment project is at the same time national and regional.

4. AN EXAMPLE OF SOCIAL ECONOMIC-FINANCIAL EFFICIENCY STUDY - PROJECT OF BUILDING OF CENTRE FOR SELECTIVE FORMS OF TURIZM IN NERETVA VALLEY

Step one: What do we want of the project

Selective touristic forms as a subject of theoretical and scientific research appeared in works of Zadar humanistic school in 1990-years of last century and they were also studied in Dubrovnik University up to 2006 (Lukovic, 2006). It appeared as a result of need for turning from mass tourism of extremely seasonal character with an aim of contributing to Croatian tourism in times of its opening to foreign markets and getting acquainted with fresh touristic motives.

Thus, selective forms of tourism are counter-balance to mass tourism, representing a different development concept, where a tourist is recognized as an individual. Individual tourist is in the centre of a research, which is basis for offering tourist attractions and creating a tourist offer that can satisfy new and dominant forms of tourist demand in the best way.

In 2012 Dubrovnik-Neretva County created Tourism Development Strategy for the period of 2012-2020. Preliminary analysis of the situation established following:

1. The town of Dubrovnik has a dominant economic role in the County, comprising 58% of tourist traffic and 70% of total income from tourism; unfortunately, other parts of the County, apart from very close surroundings, do not get tourism synergy from the force of the Dubrovnik as a centre.
2. The whole area of the County is attractive, but geographically fragmented and without adequate connection to the centre.
3. This is a part of Mediterranean with exceptional attraction potential, with various subregions of different history and partially different cultural features

Strategy defines six consistent touristic clusters, where Dubrovnik, Korčula and Pelješac stand out as more developed. In Neretva Valley, where the role of tourism is not very important, for the first time is to be evaluated in touristic sense.

Step two: Development of project options.

Building of the centre for selective tourism forms in Neretva Valley, as a possible project for development of tourism in Neretva Valley, was considered regarding:

1. Location
2. Type and size of the object.

Cities of Metković, Ploče and Opuzen were chosen as possible locations. Smaller units of local administration (Zažablje, Kula Norinska, Slivno and Pojezerje) were not considered because of the lack of the basic social infrastructure, and dislocation from the main urban development direction, being Ploče port area – agricultural Opuzen – borderline and commercial centre of Metković.

Next part of the evaluation considered choice of the type and size of the object. This choice was done on basis of one main and two auxiliary criteria:

a) Basic criterion for choosing the object for investment was possibility for obtaining of alternative funding sources. Namely, as it is very complex investment, which is partly social and partly economic infrastructure, where social efficiency is subject to evaluation, it was rationally to prepare a project for co-funding from EU Programmes. Since project was prepared before Croatia was admitted to EU, it was prepared in accordance with terms, priorities and measures of the Adriatic Cross-Border Cooperation which was financed from 2. Component of IPA.⁹ This criterion, at the same time, comprised focusing on an existing object for reconstruction, instead building of a new object. Maximization of the value, i.e. positive economic and social effect for given funds, should always be in the centre of public politics. In times when public funds are specially restricted and fiscal environment challenging, advantage should be given to possibility of reconstruction of existing usable objects instead of building new ones.

b) Auxiliary criteria for choice of the object are:

1) microlocation (good connection with local social infrastructure; good infrastructural connection, comprising all types of connections and means of transportation).

2) possibility of upbringing of facilities and connecting of basic activity of the centre to rendering supporting services that would make work and projects of the centre visible: promotions, exhibitions, manifestations, congresses....

Analysis of project options considering used criteria resulted in final choice of Community Culture House in Ploče.

3) Checking of options by using risk analysis

When choosing a project option it is necessary to identify and analyze potential risks, which can be connected to the project, and to define ways of avoiding or diminishing of such risks.

Risk identification comprises evaluation of events or circumstances on when, where, why and how realization of positive effects of the project could be prevented, diminished or postponed. Risks most commonly connected to investment projects are the ones connected to design and execution of the project, characteristics of the micro location, operative risks, market risks, force majeure, and risks connected with project (sub) contractors. Depending on the size and type of the project, evaluations of the probability of an unwanted event are done, and risk matrix is set up.

Step three: analysis of social effects of the chosen project option.

Aim of the project

In accordance to Strategy of Regional Development of Dubrovnik Neretva County and Strategy of Tourism Development of Dubrovnik Neretva County, the aim is to set up supporting institution for development of tourist entrepreneurship and related activities in tourist cluster of Neretva.

The project is expected to have positive influence on development of tourist offer in the Neretva Valley, by developing web platform, active presentations and campaigns on tourist potentials of the cluster, establishing of cross-border cooperation (Italy, BiH), education, work-shops and cooperation in realization of key development initiatives defined in the project.

Identification of the Project

Establishing of the centre for selective forms of tourism in Neretva Valley is project of public department – local and regional government. The project should be funded by II. Component of IPA Cross-Border Cooperation 70%, while remaining 30% would be national obligation of funding as per IPA regulations.

Preliminary evaluation showed as feasible investment solution comprising following:

- a) Reconstruction of presentation centre and hall
- b) Furnishing of centre for multimedia activity
- c) Furnishing of two office spaces

Project and ways of involving of partners were in accordance with actual Operative program for regional competitiveness, strategic priorities of Adriatic Cross-Border Cooperation, together with selected priority thematic areas of EU for the period 2014-2020.

Feasibility Study

Analysis of feasibility was done based on data from Strategy of Regional Development of Dubrovnik Neretva County, Strategy of Tourism Development of Dubrovnik Neretva County and local development strategy of Local Action Group Neretva.

Following tables (Tables No.2,3 and 4) comprise final calculations of financial feasibility of the investment project, analysis of evaluated economic benefits and costs with calculated social discount rate (according to equation No.4) and, finally, calculation of net economic (social) present value (according to equation No.2) and internal rate of social (economic) return (according to equation No.3), which amounts:

- Social Discount Rate	6,70%
- Net Economic (social) Present Value.....	4,35 mil.Kn
- Internal Rate of Economic (social) Return.....	11%

Evaluation of the Financial Viability of the Project Table 2

Evaluation of Economic (measurable social) Benefits and Costs of the Project Table 3

5. SUMMARY

Divergence of social and private costs, i.e. collision of general and individual interests is by all means one of disregarded problems, which should be once more returned into the focus of interest. Individual investments may be profitable by themselves, they may bring significant profit to investors and financiers, but it does not automatically mean that they are socially effective and that they have positive influence on the whole society. Resulting from the above mentioned, aim and purpose of this research is to point out the importance of conducting general analysis of social efficiency of an investment project and that such evaluation must be an essential part of each investment project. Besides theoretical evaluation of the above mentioned problems, this research also shows reduced process of analysis of social economic-financial efficiency at an example of project of making Regional centre for selective forms of tourism. From this research all of the positive effects of this investment to the regional development are clearly visible, regardless of its specific character.

In analytics of economic-financial efficiency social discount rate of 6,7% was applied, whereas net social economic present value of the project was 4,3 mil. kunas, meaning that such idea of an investment project should in ten year period accumulate this amount expressed in present value.

Internal rate of return (social), i.e. economic rate of return of investment project amounts 11%, meaning that social investment should bring a year's interest at this exact average rate. At the example of investment in Centre for selective forms of tourism we showed that such a specific and non typical investment could have very positive economic, financial and social effects on long term sustainable development, thus confirming introductory hypothesis of the research.

Only one of the possible approaches of the investment valuation has been put in focus in this paper, and the basic elements of investment profitability of specific investment have been calculated from the social point of view. Of course, it is quite possible that this investment, with respect to the private investor, might not be profitable what primarily depends on investor's preferences and financial objectives. Accordingly, it again points out the fact that, when talk about "investment profitability" or investment effectiveness it is inevitable to point out to whom is that investment is worthwhile, ie., from which point of view.

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NOTES

¹ Translation by I. Šperanda.

² Often used expressions such as: creating of 'anti-entreprenur climate', or removing of all of the 'administrative obstacles' as symbols of slowing of economic development, i.e. supporting investments are an expression of pamphleteering approach to the problem and at the same time not understanding its essence.

³Hereby the term efficiency is understand as efficient, efficacious and accordingly, profitable

⁴Marginal rate of substitution (MRS) = dE/dD , on curve I_0

⁵There is no room to possible scruples because of the title and contents of the mentioned 'Zbornik..' where mentioned research was published in. Simply, at that time the subject and problems of social development were much more often and more seriously taken, than recently.

⁶For more details see: Kuznets S. 'Relation Between Capital Goods and Finished Products in the Business Cycle'-Economic Essays in Honor of W. Mitchell, pp. 209-269. NY, 1945..

⁷Details on contents, concept and ways on composing social-economic flow see in 'Planning of Investment Projects' – (book III; part IV), edition Economic Institute – Zagreb, 1993.(pp. 53-113), also see in 'Planning of Investment Projects Manual' – Economic Institute – Zagreb – Yugoslav Bank Association, Beograd 1981 (pp. 527-587).

⁸Mentioned relations were adjusted and derived according to: 'Planning of Investment Projects' – (book III, part IV), edited by Economic Institute – Zagreb, 1993 (pp. 112-133).

⁹Projects of building of social and economic infrastructure could have been more generously and simple financed from III. Component of IPA – Regional Development, but Dubrovnik-Neretva County was not among acceptable areas of financing. From this component projects planned in ten counties with lowest development index could have been financed, but DN County was not among them. Further development of the project could be co-financed either through European Regional Development Fund (Infrastructure) or through European Social Fund (activities such as strengthening of the capacities, organizing work-shops, educations and the like). Details on contents, concepts and ways of composing of social-economic flow see in 'Planning of Investment Projects' – (book III, part 4) by Economic Institute – Zagreb, 1993 (pp 53-113), also see 'Planning of Investment Projects Manual' – Beograd 1981 (pp. 527 -587)

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THE ACCESSION OF THE REPUBLIC OF CROATIA TO THE EU THE PAST, THE PRESENT, THE FUTURE

JEL classification: F02

Abstract

The contemporary European integration processes are accompanied by numerous theories and activities, confrontations or approvals that can conditionally be divided into two groups, depending on the starting point of examination of each aspect of integration. The principal differences are reflected in the approach to examination of the very phenomenon, regardless of whether it is analysed from an economic or political viewpoint and the extent of the obligatorily transferred part of national sovereignty to EU authorities. In the latest development of integration processes in the European Union and other European integrations, political, economic, social and cultural significance of the particularities of individual European countries has largely been taken into account; however, the activities were directed to transferring a part of economic and political sovereignty to joint EU bodies in order to function more effectively. It is important for future economic and social development of the Republic of Croatia to form economic and political connections with European and other world integrations, especially economic ones. Until the democratically oriented government of the Republic of Croatia came into power, many mistakes had been made by the earlier political system, which had been fully insulated from the European integration processes. On its way to Europe, Croatia did not receive adequate assistance and support of more developed Western countries until January 3rd, 2000, and

this especially relates to the EU integrations that had jointly defined the guidelines Croatia needed to follow in order to access the social and economic system of the Western world and accept its values. The subject of this paper are the effects of EU accession and the consequences reflected on the economic situation in the country, as well as the good and bad sides of integration processes.

Key words: European integrations, the European Union, pre-accession funds, structural and cohesion funds, economic and political conditionality

1. INTRODUCTION

During the development of European integrations, the biggest problems emerged around the issue of national i.e. state sovereignty. Relatively quickly, it was learned that further development of integrations, i.e. individual integration and development processes and objectives, cannot be achieved without sacrificing part of their own sovereignty and its transfer to bodies of the integrated community. Disputes were revolving around this particular issue. Representatives of some Member States, especially of conservative or right-wing political parties, had difficulties coming to terms with these requirements. The issue which was the hardest to accept was that of reduced legal sovereignty of individual states and the conditions of the conclusions of the Community, i.e. its obligatoriness for the Member States, without which functioning of the integration is impossible. In fact, without strong legal integration background, there is no economic power.

International economic integrations have occurred recently and are a result of the doctrine of liberal world market. The main hypothesis: The origin of first economic integrations coincides with the time period when leading countries of the world rapidly implemented and developed their relations on the doctrine of liberal world market. PH1: Activities of the first international economic integrations were based on the attitudes and views which encouraged joint economy and appearance on the third markets. PH2: Integration activities were based on three dominant views: first – requirement for safe and free navigation on the rivers and the sea, free use of the existing waterways; second – the need for everyone to use and deliver news and information under the same conditions; third – simpler legal protection of copyright and protection of industrial creativity and property.

The objective of this paper is to analyse the default processes for integration into the European integrations, especially into the European Union, that promote comprehensive changes to the adjustment of current institutional framework, various policies, and primarily the legal system of the country. The benefits of accepting the new system should primarily be reflected on political

and security level. The scientific contribution is reflected in the development of scientific thought about the needs of joining the European Union, which brings a number of advantages in co-operation with various international institutions and organisations, especially at the global level. Stronger groups present themselves more successfully than individual countries. The contribution of this paper is reflected in the presentation of the most important facts for Croatia concerning the accession to European integrations and more free access to markets of member countries of such integrations, especially the EU market. According to recent experience of countries that went on the same path, transition changes will result in certain expenses and, at first, even a decline in the national income, but further development will undoubtedly encourage stronger overall national development. Croatia started moving into this direction, and is today part of the EU (Samardija, 2000).

Scientific methods used in this paper are methods of systematic analysis, dialectical and logical method, mostly in the combination inductive-deductive, and vice versa, deductive-inductive. Also used were quantitative and qualitative methods with methods of comparison of temporal and spatial characteristics.

2. INTERNATIONAL INTEGRATIONS AND THEIR LEGAL ORGANISATION

Contemporary international law reflects on the creation, operation and development of new types of international integrations. At the time the first integrations and economic or political organisations were created, such creations were regarded with suspicion and were denied the status of an international entity. However, as time passed, their number and power grew, which confirmed the importance and reasons for their existence. Further development of the legal doctrine and direct active practice of international law strongly influenced the direction of recognising the status of international associations and international integrations, and various other organisations, which resulted in a heavy influence of international integrations in solving global political and economic issues. It is evident that the interest of some world countries to participate in their work has been increasing, especially for membership in their economic structures (Hurwith and Lequesne, 1991).

The historical origins of economic and political connections of various countries date back to a century ago, while rapid expansion and efficient operation of international integrations in the modern sense only appeared around the 1950s. Such rapid economic development was fueled, among other things, by two world wars in the same century and people's desire not to repeat such calamities. World peace was seriously threatened throughout the century, and this was the main impetus to the leading countries of the winning alliance to closely connect and forget their petty disputes, and prevent a start of a new war by the operations of international integrations. In addition to providing a framework for

the development of world peace, it is the task of integrations to, within the framework they operate in, solve economic, political, and other issues crossing the borders of individual countries by their very existence. Today, there are only a few countries that are non-members of world integrations. By becoming integration members, countries connect economically and politically and cooperate with other countries on the basis of the same or similar interests. They are working together in some of the integration bodies that carry out the objectives set up by the founding acts of the integration (Andrassy, 1990).

The instruments of action of international integrations such as: powers of integration, number of bodies, relationships between the members, relationships with non-member countries, and relations with other integrations vary from integration to integration. However, they share the activity of integration of various fields of activity.

3. THE STABILISATION AND ASSOCIATION AGREEMENT

Since its independence, the Republic of Croatia has recognised the need to get economically and politically closer to European integrations, in particular the European Union as the most important European integration. The course of development of the negotiations of the Croatian government with the European Union formally started quite late, in 1995, after the establishment of the Croatian state sovereignty. This is when the first meetings of professional bodies of Croatia and the European Union were held. Technical negotiations in the framework of the Trade and Cooperation Agreement covered three sets of issues, in three important agreements: the Trade and Cooperation Agreement which should be associated with the financial protocol, followed by the Transport Agreement, and the Coal and Steel Agreement. After numerous delays, on 6/11/1996, Croatia was admitted to the Council of Europe, which should have opened the possibility of further negotiations with the European Union and the conclusion of the Cooperation Agreement.

Although it is not an integration, the procedure of joining the Council of Europe is the first step that every European country must fulfil to access the European political and economic life, and only then is the possibility of joining the European Union considered. The Council of Europe is a regional inter-governmental organisation of political character founded in order to achieve a greater unity between its members by preserving the ideals and principles of their common heritage, in order to harmonise their economic and social interests (the first paragraph of the first Statute of the Council of Europe). The cooperation and realisation of these interests is achieved by signing the conventions and joint actions in the economic, social, cultural, scientific, legal and administrative field and in the field of protection of fundamental rights, freedom and democracy. The Council of Europe is one of the few international organisations accessed by an

invitation sent to a potential member state. In addition to general obligations, such as prohibition of abuse of the right to vote and to respect the decisions of the bodies of the Council of Europe, each country is obliged to align its activities with the objectives of the organisation and participate in the financing of the organisation in the amount determined according to the population size, while associate members provide the amount determined by the Committee of Ministers (the first paragraph of the first Statute of the Council of Europe). The Republic of Croatia was admitted to the Council of Europe on 6/11/1996 and committed itself to the following: .

1. Upon admission to the Council of Europe (CoE), to sign the European Convention on Human Rights;
2. Within one year after the admission to the CoE, to ratify the European Convention on Human Rights and Protocols No. 1, 2, 4, and 7;
3. From the day Protocol No. 11 enters into force, to recognise the right of individuals to call the European Commission of Human Rights, and the compulsory jurisdiction of the European Court of Human Rights (Articles 25 and 46 of the Convention);
4. To sign within a year and ratify within three years Protocol No. 6 of the European Convention on Human Rights, i.e. to abolish the death penalty in peacetime;
5. To sign and ratify within a year the European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment;
6. To sign and ratify within a year the European Framework Convention for the Protection of National Minorities, the European Charter of Local Self-Government, and the Charter for Regional or Minority Languages, to conduct the policy towards minorities on the principles set forth in the Recommendation of the Assembly No. 1201 from 1993, and include these principles into the legal and administrative system and practice in the country;
7. To implement the recommendations resulting from the opinion of the European Commission for Democracy through law (the so-called Venice Commission), on constitutional law, human rights and freedoms, the rights of national and ethnic communities and minorities, as well as mechanisms for the protection of human rights.
8. To take all necessary measures, including adequate police protection, which will guarantee the safety and human rights of the Serbian population in Croatia, particularly in the former areas under UN protection, to facilitate the return of people who left these areas with the help of specific legal procedures, and to effectively implement their rights to receive their property or compensation;

9. For the purpose of ratification, to study the European Social Charter of the Council of Europe and in the meantime implement the policy in accordance with the principles contained therein;

10. To sign, ratify and in the meantime apply the basic principles of other conventions of the Council of Europe, notably those on extradition, mutual assistance in preventing crime, on the transfer of convicts, money laundering, searching for criminals, robbers and confiscation of illegal gains;

11. To resolve international and internal conflicts peacefully;

12. To strictly keep to its obligations assumed by the Basic Agreement on the Region of Eastern Slavonia, Baranja and Western Sirmium, and to co-operate with the UNTAES in this area;

13. To fully and effectively co-operate in the implementation of the Dayton and Paris Peace Agreement in Bosnia and Herzegovina;

14. To co-operate and assist the Prosecutor of the International Criminal Tribunal for the former Yugoslavia in bringing before the tribunal without delay persons indicted for war crimes, crimes against humanity and genocide;

15. To address the issues of international borders in accordance with the principles of international law;

16. To implement the recommendations of experts of the Council of Europe on the laws pertaining to media, such as Public Information Law, Telecommunications Law, and the Law on the Protection of Market Competition;

17. To continue the procedure of electing the Mayor of Zagreb in accordance with the Constitution and the laws of the Republic of Croatia taking into account the recommendations of the Council of Europe;

18. To continue with the reforms in order for all legislation and its implementation to be in line with the principles and standards of the Council of Europe;

19. To accept the recommendation of the observers of the Council of Europe and other international organisations, before the next elections at the latest, in particular in connection with the special voting block for the diaspora, minority representatives, lists of voters, secrecy of the vote, as well as the need to increase the independence of national radio and television, and to conduct a population census as soon as possible;

20. To sign and ratify the General Agreement on Privileges and Immunities and its additional protocols within one year of the admission to the CoE;

21. To co-operate in the implementation of the Parliament's Order No. 508 (1995) on the honouring of obligations of member states of the Council of Europe, as well as the monitoring process established by the Declaration of the Council of Ministers of November 10, 1994 (the 95th session).

The new Croatian government started democratic processes in the country, and the European Commission proposed to the Council of the EU to open negotiations with Croatia on the Stabilisation and Association Agreement (SAA). This was a new form of contractual relations that the EU should develop in the future with the countries of South Eastern Europe. The agreement should include economic and political stabilisation of the region and develop long-term good relationships of countries in the region as well as between them and the European Union in the field of politics, economy and trade. Every country in the region can join the agreement provided that it meets certain political and economic conditions. Croatia was the first country in the region to start fulfilling the set conditions and it was considered that it could start negotiations. The EU Commission drew up a list of directives that had to be agreed on by the negotiating teams of both sides, and they were also used as an official framework for negotiations. Within the framework of the Agreement, provisions were considered on political dialogue, mutual co-operation, harmonisation of legislation, technical assistance, and the creation of the necessary institutional structures to guarantee the implementation of the Agreement. The Agreement should speed up co-operation between the EU and Croatia in various fields and enable its faster integration into EU structures. The Agreement should promote economic and trade co-operation with the opening of free trade zones. In this way, the zones established after the transition period would give rise to faster movement of goods and services, depending on the degree of Croatian preparedness for such activities. The Agreement would also arrange the movement of the labour force, business co-operation, services, methods of mutual payments and capital movements. Croatia needs to align its legislation with the legal system of the EU with particular attention devoted to the internal market. Road and transit traffic should be fully liberalised, as well as the necessary transport infrastructure. Special attention is devoted to mutual co-operation in justice and internal affairs. The EU is obliged to provide Croatia financial and technical assistance for the implementation of the agreed provisions (EUROSCOPE 1996.)

Such form of the agreements was accepted and signed by all the current Member States, but also transition countries of Central and Eastern Europe which have declared their intention to access the EU. Each of the acceding countries had its particularities and the Agreement was adapted to each new accession country, but also represented the interests of the European Union as a whole. Thus, for instance, agreements signed with the transition countries, East Germany, Czechoslovakia, Bulgaria, and Romania were largely characterised by commerce and encouraged liberalisation of industrial products, because at the time, in 1988 and 1989, these countries were largely dependent on the Eastern Bloc and were not interested in the development of democracy and development of a market economic system of the Western type. The concluded agreements on cooperation between the European Union and Hungary and Poland included forms of assistance that should have been provided by the European Union, in order to develop political and economic reforms in these transition countries. This method

of cooperation favoured the entry of these transition countries to the EU market, and both parties to the agreement achieved the status of the most favoured nation in their economic markets. Agreements regulate gradual abolition of various restrictions standing in the way of better mutual co-operation, and, in particular, imports of various products to the European Union. The Agreement encouraged the abolition of the limit for GATT member countries until 1994, while restrictions for other countries were lifted by 1995, with a focus on the elimination of all forms of discrimination and encouraging reciprocal exchange (Hurwitz and Lequesne 1991, 303-312). After successful admission to the Council of Europe, the next step of the Croatian Government was to join the World Trade Organisation - WTO. After several attempts, and with full support of the US government and other friendly countries in the West, this was achieved at the conference in Geneva on 17/07/2000. Thus, Croatia became the 139th member state of this important world organisation.

Croatia's joining the WTO will boost more rapid adjustment of the national legal system to West European legal norms and standards, and thus open possibilities for faster accession to the European Union and other European integrations. That would be the most important step on this path. Along with the procedure of joining the WTO, Croatia should also access the V Protocol of the General Agreement on Trade in Services, which is important for the regulation of financial services (Radočević 1998). For now, the Protocol is not compulsory for the Member States, but is set as binding for new accession countries among which is also Croatia. The acceptance of the Protocol should not be a problem for Croatia, because the high level of liberalisation of the financial sector corresponds to the Croatian economic system. By consistent application of the liberalisation of financial activities, Croatia has become integrated into the global financial market, which has led to long-term economic development of the national economy. The Croatian Parliament ratified the Protocol on the Accession to the WTO on 5/10/2000, and 30 days later, Croatia became a member, i.e. on 5/11/2000. For Croatia, accession to the WTO means getting out of the ten years of isolation from the world, with strengthening of economic growth and increase in the standard of living and general development.

EU assistance to interested transition countries through the Agreement is reflected through the assistance in the development of statistical services, agriculture, energy, environment, and transport of the respective countries. Development loans from the European Investment Bank and European Bank for Reconstruction and Development should be pointed out; they plan to invest more financial resources into the development of transition countries. The Agreement between Croatia and the European Union should establish better mutual cooperation on economic, technical, technological and financial basis, industrial cooperation, development of science and technology, agriculture, fisheries, transport, tourism, protection of the environment and improvement of living conditions, encourage the development of human resources, general and vocational education and training, mutual co-operation through statistics,

telecommunications, harmonisation of standards and financial cooperation through the use of financial resources of the European Investment Bank and other financial institutions of the European Union (Weizsäcker et al.,1999).

A very important issue for the Croatian economy is that of export and import quotas and tariff barriers towards the European Union, which have been developed for years, since the time of former Yugoslavia, and after this community had fallen apart, the European Union set up a special quota treatment for Croatia, Bosnia and Herzegovina and Macedonia, and in 1995 for Slovenia. The quota treatment is extremely unfavourable for the Croatian export structure (*Europska unija - gospodarsko i političko okruženje Hrvatske*, 1994). The new agreement should regulate access of Croatian products to the EU market, provided that Croatia opens its market for products of the EU Member States with the application of the right of the most favoured nation, while the European Union agrees to reduce their protective tariffs on Croatian products and services. The road to full membership is relatively long, requiring many adjustments and contains the four steps that Croatia, as well as all other full Member States must pass. The first step is the signing of bilateral free trade agreements, followed by access to the common market, and the adaptation of all legal and economic regulations of the acceding countries to the common market, and finally, the country's accession to the monetary union as the peak of cooperation between the EU and accession countries. In a relatively short time, Croatia concluded the Cooperation Agreement with the European Union, which was ratified by the Croatian and EU bodies, and on July 1, 2013, the Republic of Croatia became the 28th member of the European Union.

Countries that adopt the Associate Membership Agreement are granted the status of an associate member of the European Union and begin preparing for the second phase, full membership in the European Union. The objective can be divided into several levels, of which the most important are the following (Džamić 1994):

- establishing the basics and creating the appropriate structure for further political cooperation;
- fostering a stronger expansion of commercial exchange and further alignment of mutual economic bonds between the acceding countries and the European Union with the intention of encouraging further economic development of new accession countries;
- opening new opportunities for financial, technical, and other assistance to the new accession country;
- opening new possibilities for more thorough economic cooperation with all EU Member States and final integration of new countries into all EU structures, provided that the new country meets all the necessary requirements;
- particular attention should be devoted to cultural co-operation of the new country with permanent EU Member States.

The importance of European agreements for new countries is reflected in further liberalisation of the commercial exchange with the European Union and the reduction or complete abolition of customs and other restrictions to the given time period of ten years. In this period, the new acceding country rapidly makes many changes in its legislation, standards, financial activities, and other important segments of social and economic activities, with the aim of better adjustment to the EU. The effects of the conclusion of the Agreement with Croatia have reflected on many parts of the political and economic structure, especially on the effects of foreign trade after the elimination of tariffs and other non-tariff restrictions on further growth or decline of Croatian imports and exports.

4. INCENTIVES FROM PRE-ACCESSION FUNDS

Croatia cannot in the near future dispose of a sufficient amount of equity capital that would cover its developmental economic needs, or its economic investments. For this reason, it will be forced to receive various kinds of foreign capital into its economic system, and one of such forms are incentives through EU funds. In fifteen years, Croatia received from the EU about 1,6 billion EUR to fund various projects as a beneficiary of the IPA instrument for pre-accession assistance 2007-2013. IPA is an assistance programme for candidate countries and potential candidates in order for them to align their national legislation with the *acquis communautaire* of the EU and to strengthen their capacities for the implementation of new laws and regulations. The amount of 93,5 million EUR was allocated for the IPA programme in 2013, and the programme consists of the following components: Transition assistance and building of institutions, cross-border co-operation, regional development, human resources development, and rural development (IPARD). IPA was replaced by the following programmes: CARDS Community Assistance for Reconstruction, Development and Stabilisation, PHARE represents a pre-accession instrument intended for candidate countries located in Central and Eastern Europe as the programme of assistance in preparing for EU membership; ISPA is the EU assistance programme funded by the European Commission in order to assist the candidate countries in their preparations for EU membership, and is related to projects from the field of environmental protection and transport; the SAPARD programme is intended for improvement of the farms and processing of agricultural products; LIFE is a financial instrument supporting environmental and nature conservation (retrieved from: <http://www.entereurope.hr>).

After the Reonstruction Programme 1996-2000, which was related to reconstruction projects in the areas devastated by the war, followed the CARDS Programme from 2001-2004, which was intended for strengthening the administrative capacity, the available funds amounted to 262,00 million EUR given through 113 projects. In 2004, when Croatia became a candidate country for EU membership, the first-generation programmes became available to Croatia: PHARE, ISPA and SAPARD, through which Croatia received the

amount of 252,00 million EUR for the period from 2005 to 2006. The PHARE programme focused on capacity-strengthening projects for EU membership. In 2005, through 23 project proposals, Croatia received the amount of 71,5 million EUR of grant. In the framework of the programme, in the period 2005-2006, 43 projects worth 167 million EUR were approved. The ISPA programme funded infrastructure projects in transport and environmental protection. In 2005-2006, 60 million EUR were approved for the implementation of two infrastructure projects in the field of environmental protection, one infrastructure project in the field of transport, and three technical assistance projects. All these programmes have a very high rate of implementation of the agreed programmes, which is on average more than 90%. From the IPARD programme (rural development), the Agency for Payments in Agriculture, Fisheries and Rural Development was paid under Measure 202 „Preparation and Implementation of Local Rural Development Strategies“ for the co-financing of 42 Local Action Groups (LAGs) in the amount of 37,8 million HRK in 2014 (downloaded from: <http://www.eu-projekti.info>).

Additionally, Croatia was also involved in various assistance programmes such as CARDS, TEMPUS, the Fifth Framework Programme for Research and Development, and LIFE (Resolution of the COST Senior Officials Committee concerning the enlargement of COST to the Republic of Croatia and Slovenia in 2000).

5. CROATIA IN THE EU

Croatia became a full member of the European Union with full access to various development funds. From July 1, 2013, the available funds from pre-accession programmes have been considered an integral part of the structural funds. In total, Croatia now has at its disposal from the 2007-2013 Cohesion Policy programme 815 million EUR, of which more than a half, 449,4 million EUR, refer to the period after the accession. Access to EU structural and cohesion funds with more than 1,5 billion EUR per year opens better access to the market of 500 million people. In support of the cohesion policy, there are also the European Regional Development Fund, the European Social Fund and the Cohesion Fund. The European Commission concluded the Partnership Agreement with Croatia on structural and European investments, from which during the period from 2014 to 2020 Croatia has at its disposal from structural and financial EU funds the amount of 10,423 billion EUR. Of these, 8,397 is allocated for investments in growth and work places. Allocation for rural development and agriculture in this multi-annual period amounts to 2,026 billion EUR. For maritime and fisheries, there are additional 280 million EUR available, for youth employment initiatives in 2014 and 2015 66,177 million EUR. From the funds allocated for connecting Europe, there are 456,147 million EUR available. The level of utilisation of funds for the operational programmes for the environment, transport and regional competitiveness is only 20%. From that, for

underdeveloped 5,837,500 EUR, Cohesion Fund 2,559,500 EUR, for European Territorial Cooperation (cross-border cooperation) 127,800,000 EUR. In 2014, Croatia was allocated 900 million EUR from the Cohesion Fund, European Social Fund and Regional Development Fund. In addition, there are another available 300 million EUR for agriculture and fisheries, which amounts to about 1,2 billion EUR which must be used within three years. On September 5, 2014, only 70 per cent of the resources from the period 2007-2013 was agreed, and paid only 22 per cent. Payments into the EU budget in 2013 amounted to 1,8 billion HRK (0,6 percent of GDP), of which 0,4 per cent of GDP make payments based on gross national income, and 0,1 per cent based on VAT, according to the analysis. The annual EU membership fee amounts to 3,6 billion HRK, which could in 2014 amount to 1,1 per cent of GDP and it is expected to remain at that level in the next two years. However, so far, Croatia used only a small amount of financial resources from various structural funds at its disposal as an EU Member State. In the first four months of 2014, Croatia paid 222 million EUR to the EU budget and drew 341 million EUR, while the difference appeared due to the advance payment of 150 million EUR for projects in the stage of implementation, but also because of the direct payments for strengthening budget liquidity. In drawing EU funds, the N+3 rule applies, i.e. the money can be used within three years from the default, following year. By 2023, we will not be able to draw the line and determine how much money we have used from the amount at our disposal from 2014 to 2020. The fact is that, due to poor application and withdrawals of funds, the potential amount is getting lost and, due to poor response, the amount of money in the funds decreases. The plan in the Croatian budget for 2015 is to use 7 billion HRK from EU funds, which is not an ambitious plan considering that we have available 20 billion HRK. Croatia will in 2016 surely lose 300 million EUR possibly obtained from the EU funds (retrieved from <http://www.mrrfeu.hr>).

While Poland employs about 11000 people in the implementation of EU funds, in Croatia, this process has been unfolding very slowly in terms of education and employment of personnel who should work on drawing money from the funds. English language skills are no longer necessary, because all applications are in the Croatian language. Preparation of projects and the level of contracting should be doubled and include own financing which varies from 25 to 50, sometimes even more per cent, i.e. about 2,4 billion EUR, which in 2014 amounts to 20 billion HRK. The fund multiplier is 1:9, which means that on the paid 1 EUR, 9 EUR can be drawn.

Table 1

The Percentage of Absorption of Funds 2011-2014 in Croatia

Year	2011	2012	2013	2014.
%	2,9%	7,3%	16,3%	28,2%

Source: *Jutarnji list* 20/11/2014

According to recent reports of the European Commission on the use of structural funds for the above-mentioned period, Croatia is at the last place among the members. The average utilisation at the EU level is three times higher than in Croatia, i.e. more than 67 per cent. (Table 2.). Romania, which is one of the most underdeveloped EU Member States, used two times greater percentage than the mentioned financial resources available to the Member States. This poor utilisation of financial resources from EU funds clearly demonstrates that Croatia, despite constant advice of the European institutions, is still not prepared for the successful use of European structural funds.

Table 2

Absorption from the Funds from 2007 to 2013 in the EU

Estonia	Portugal	Greece	Latvia	Finland	Belgium	Germany
84,49%	83,53%	79,32%	78.84%	76,42%	74,56%	73,94%
Denmark	Ireland	Sweden	The Netherlands	Poland	Austria	Cyprus
73,81%	73,68%	73,33%	71,07%	70,82%	70,07%	69,93%
Luxembourg	Lithuania	Great Britain	Spain	France	Slovenia	Hungary
69,80%	68,68%	67,64%	67,28%	65,31%	63,83%	61,82%
The Czech Republic	Italy	Slovakia	Malta	Bulgaria	Romania	Croatia
56,71%	54,33%	52,81%	52,41%	52,18%	45,18%	21,72%

Source: *Jutarnji list*, 30/4/2014

Accession to the EU has in a short time created a noticeable pressure on the general government budget, and this pressure can additionally increase by 2016. The overall effects of accession to the EU on the Croatian budget are currently in the red, and this will continue in 2015. The budget minus 2014 due to accession to the EU, according to the data by the Croatian National Bank, amounted to 1 per cent of the GDP, while in this year, 1,2 per cent of GDP, and in 2016, it could reach 1,3 per cent of GDP (Table 3). All this is happening at a time when Croatia has to reduce the budget deficit and stop the growth of external debt, which is its primary obligation from the excessive deficit procedure (EDP), which narrows the room for maneuver in fiscal consolidation. These are new expenses that must be settled by saving on other budget items (retrieved from <http://www.mfin.hr>).

Table 3

Budget Minus in GDP Due to Payments in the EU Budget (%)

Year	2013	2014	2015	2016
% of total GDP paid in the EU budget	-1,0	-1,2	-1,2	-1,3

Source: CNB

In other countries that joined the EU, the initial effect of the membership on public finance was negative, but positive for the rest of the economy, and ranged from 0,5 to 1 per cent of GDP. In Croatia, there was almost no positive effect on the economy, and the reason for that, except for domestic circumstances, also lies in the general state of the EU. The main reason for low use of European structural funds by Croatia is the delay in obtaining various accreditations related to management systems and controls that were obtained recently. Without these accreditations, making payments or obtaining financial resources from European funds allocated for the second half of 2013 was impossible, and it should be noted that the amount of this funding is the largest. Croatia will in 2016 lose a minimum of 300 million EUR, and 500 million EUR in 2017. The funds applied for in 2014 should be used, which are much higher than that of 2013 and amounted to 900 million EUR (*Jutarnji list*, 1.2.2015). While we minister Grcic says the *Jutarnji list* that by 2020. we will withdraw 10.7 billion euro stimulus what will be reflected in an increase in GDP to 25 percent, which is impossible to take seriously because we already greatly missed by applying projects (*Jutarnji list*, 20.6.2015). Also, efforts should be made to ensure constant education and promotion of funds, as well as presentation of the results of the used incentives; working groups should be formed for assistance in project writing, independent institutions should carry out systematic control of the use of the obtained funds.

6. CONCLUSION

After the change of government in Croatia and the victory of a democratic party in the elections, activities on co-operation with all European integrations were intensified, in particular to enhance the development of institutional relationships with the European Union. Negotiations with the European Union on the Stabilisation and Association Agreement were carried out without obstacles. As a contribution to Croatia, the European Union adopted asymmetric economic liberalisation measures towards Croatia. Today, when Croatia is an EU Member State, negative trends in the economy persist, and Croatia has been in recession for six years. This is the first year in which it is projected that Croatia will get out of the crisis by a slight increase in the industrial production. In the Republic of Croatia, unemployment is primarily structural and

does not fit into the classical theoretical division into seasonal, technological, or cyclical kind. Its rapid increase in the past twenty years is the result of radical social and political changes which, along with the consequences of war, marked the recent period as a period of crisis. When examining the reports on WEF global competitiveness in the period since 2002, when Croatia was for the first time included in the GCR, it is evident that Croatia's competitive position has been continuously declining, which also reduces its importance as a Member State of the WTO and the EU. This especially reflects on declining investment climate, which is a fundamental lever of economic recovery. It is hard to find a development strategy in such a deep crisis as the one in Croatia, and not to start, as a first step out of the crisis, new investments and creating jobs. Thus, it can be concluded that the general bad state of the economy influences desirability of the country for commercial or any other cooperation. Joining the integrations should encourage the improvement of living conditions of all nations, especially developing countries, among which is also Croatia. It includes raising the level of social factors with the use of a wide range of different policies directed towards participation of all economic and social factors.

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PUBLIC FINANCE

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PUBLIC DEBT IN THE CEECS: IS THE SOVEREIGN DEBT CRISIS OVER?

JEL classification: H63

Abstract

The paper investigates how the global financial and the ensuing European sovereign crisis affected the public debt dynamics of the EU member countries of Central and Eastern Europe, which countries are generally facing difficulties in keeping fiscal discipline as a negative consequence of global and regional financial turbulences. It reveals how economic factors (real GDP growth, interest rates, primary deficit) affected the trend of public debt in the period after 2008 among new EU members on the basis of Eurostat and European Economy statistics. After the briefing of some relevant government debt theories (among others Marcet and Scott, 2003, Díaz-Giménez and Giovanetti, 2007, Garcia et al., 2011, Broner et al., 2014), the paper provides a descriptive analysis of the debt structure of eight Central and Eastern European countries in recent years. It compares the currency composition of the governments' liabilities, discusses the role the domestic public sector plays in financing public debt, and whether there is evidence of domestic financing crowding out private investment in these countries. In the light of CDS premia and reference yields financing costs are contrasted and the way debt management strategies are formulated and government debt instruments are chosen in order to mitigate the financial burden caused by government indebtedness are compared. Finally, the paper summarises the lessons of the Hungarian self-financing programme launched in April 2014 by the Magyar Nemzeti Bank (Central Bank of Hungary).

Key words: public debt structure and dynamics, CDS premia

INTRODUCTION

The 2008 global financial crisis shook all countries of Europe independent of geographical situation or economic development and transformed to the crisis of sovereigns. The sovereign debt problem of Europe became more pronounced with the announcement of the true level of budgetary deficit in Greece in November 2009. A series of negotiations started how to protect Greece from default on debt, how European institutions can take part in the financing of public debt in the PIIGS and what measures should be taken to prevent financial instability caused by budgetary imbalances of member states in the future. The sovereign debt crisis of Europe spread over to the Eastern periphery: at the end of 2011 Hungary was downgraded again then followed Slovakia, Slovenia, Croatia and Slovakia¹. The process seems not to be over as Greece is still fighting with everyday payment problems arising from debt, Slovenia launched new bailout package for banks and Hungary uses a series of unconventional economic policy measures to tackle the debt problem. The paper investigates the dynamics of public debt in the CEECs after 2007, the structure of debt and addresses some policy implications.

CAUSES AND CONSEQUENCES OF PUBLIC DEBT

A simple macroeconomic framework cited by among other Oblath-Valentinyi (1983) describes the dynamics of public debt accumulation by deriving the equation below:

$$\dot{b} = d - \mu m + (r + \frac{\delta}{\epsilon} - \gamma_y) b \quad (1)$$

This equation illustrates the real economic factors which affect the dynamics of public debt in time: the primary balance as a percentage of GDP (d), the real increase of the quantity of money in the given period (μm), and the initial level of the debt-to-GDP ratio (b), where the latter contributes to the increase in the stock of liability to the extent at which the real interest rate (r) (plus real depreciation in the case of foreign currency denominated liabilities: $\frac{\delta}{\epsilon}$) exceeds the real growth of GDP (γ_y). The causes of the accumulation of public debt are well summed up in the above equation: apart from government overspending, whose effect is obviously debt generating, the slowing down of the economic performance of the economy and the interest expectations, as well as currency depreciation are important determinants as well.

Especially since the onset of the global financial crisis the scope of public debt theory has oriented to explain the consequences of government indebtedness. The seminal study of Reinhart and Rogoff (2010) confirmed that a debt-to-GDP level exceeding 90% can be a strong impediment to growth whereas

¹ Croatia's and Hungary's credit rating is still below the investment grade.

it is difficult to detect any reliable relation between growth and public debt below this level. A lot of criticism was raised against this finding, Herndon-Ash-Pollin (2013) attacked the methods and called the attention of the importance of the time period and country, Égert (2013) also emphasised that the impact of public debt on real GDP growth is rather dependent on the data series and modelling choices.

In any case governments in the EU countries have to face a serious constraint to stimulating the economy and at the same time intending to comply with the Maastricht fiscal policy rule if interest rates are high and interest expenditures leave no room for manoeuvre for fiscal policy. Garcia et al. (2011) call the attention to the problem of procyclical fiscal policy and ensuing macroeconomic volatility as a possible consequence of applying fiscal rules especially in emerging economies. Marcet and Scott (2003) compare complete and incomplete bond markets for investigating the impact of macroeconomic shocks on public debt. They are dubious about the application of fiscal rules as these rules do not differentiate between those governments which have to suffer great fluctuations in the debt-to-GDP ratio because of their incomplete security markets and those which simply conduct an insolvent economic policy. The formation of a complete market is therefore more advantageous as the volatility of taxes can be directly mitigated and the sustainability of debt better tested. In the opposite case higher interest rates today mean higher taxes in the future.

Many studies address the question of inflating public debt (Díaz-Giménez and Giovanetti, 2007, Martin, 2009). It is again not a real alternative for EU member countries but some authors suggest that in certain economic circumstances active and discretionary monetary policy can be a remedy for the problem of indebtedness instead of strict rules (for instance Araujo and Leon, 2004 on public debt in a currency union).

Finally, Miller and Foster (2012) call our attention to the relationship between public debt and economic freedom² by stating the governments favouring economic freedom are likely to strengthen a country's growth potential and "create an environment that reduces the risk of debt". Notwithstanding, Miller and Kim (2012) acknowledge that debt can contribute to increased productivity if it is used to reduce the tax burden and finance productive investment. If the increase in public debt is a permanent phenomenon it might reflect poor policy choices and the lack of economic freedom as well.

PUBLIC DEBT IN THE CEECS BEFORE THE CRISIS

It is interesting to see on what economic path Central and Eastern European countries were progressing in terms of public finances before the

² According to Miller and Kim (2012, p. 14): „three fundamental principles of economic freedom – empowerment of the individual, non-discrimination, and open competition – underpin every measurement and policy idea” related to the term.

financial crisis. Among the many explanations of debt accumulation as regards economic freedom Treidler (2015) pointed out that the Czech Republic has an outstanding score in economic freedom (covering freedom of fiscal policy decisions as well), whereas Slovenia is appraised to be below the regional average. At the same time Németh (2015) examined whether election budgeting was present in the region and came to the conclusion that increased government spending can be detected in the Visegrad countries (including the Czech Republic, Hungary Poland and Slovakia): in election years governments tended to spend more in order to obtain voter's trust and the consequence was a deficit path following political cycles. In the case of Hungary this cyclicity of the budget meant an unequivocal contribution to today's above average debt level, mostly in the years of 2002 and 2006. Another explanation why fiscal policy decision-makers were interested in raising debt-to-GDP levels is offered by the public debt as strategic variable approach (Alesina-Tabellini, 1990). According to this interpretation current policy-makers pile up massive government liabilities to make it difficult for new incoming parties. In the years preceding the crisis again the Visegrad countries can be suspected of this political gimmick whereas Slovenia and Bulgaria did not use debt as strategic variable. EU accession could be also used strategically to create confidence in the economy and make austerity measures more acceptable, as was observable in the case of the Czech Republic, Slovakia and Romania, this in contrast contributed to the stabilisation of the budget (Takács-Benczes, 2015). Hungary, on the contrary, had to apply procyclical fiscal policy by breaching the Maastricht deficit rule between 2002 and 2008 and had to undergo the excessive deficit procedure due to a distorted structure (the still dominant social transfer payments like during socialist times) of the general government, budgetary overspending and stop-and-go economic policy (Constantinovits, 2014, Benczes, 2015). Slovakia did not need to build trust by increasing social payments, it instead reformed the budget as early as in 1997 and then could maintain the results of this reform (Györffy, 2015). Poland has also been strongly committed to the 60% debt-to-GDP rule which is even stipulated in the Polish constitution. (Kozenkow, 2015) Finally, Croatia followed an atypical model of economic policy (Sieger, 2015). Facing the double challenge of an armed conflict and transformation at a time, the debt ratio could only be kept moderate until privatisation revenues could counterbalance budgetary overspending. Between 2002 and 2008 Croatia could then achieve a declining public debt ratio but due to the growing economy and not major fiscal policy reforms (Sieger, 2015). It did not really take advantage of EU accession as strategic tool as there was a lot of scepticism around this policy step.

In the course of the financial crisis mostly external factors dominated the forming of government debt and most governments simply reacted by budgetary loosening (except Hungary). The picture since then concerning figures is probably more diverse than the strategies leading to the current post-crisis situation.

THE DYNAMICS OF PUBLIC DEBT AND ECONOMIC PERFORMANCE

In the course of the European sovereign crisis it became a striking question whether the excessive indebtedness prevailing in Western European countries would also reach the block of new member states. As regards Hungary, the debt-to-GDP ratio was not much lagging behind the eurozone average already in 2007 before the global financial crisis also hit Europe.

The severity of the debt problem by now is manifested by the data of last year when three countries of the Central European region recorded over 60% public debt, the threshold defined by the Maastricht Treaty, according to the new statistical methodology ESA 2010. In the V4 countries (the Czech Republic, Hungary, Poland and Slovakia) the upward tendency seems to have come to a halt but Slovenia and Croatia are facing a menacing debt accumulation process and getting closer to the eurozone average (Figure 1).

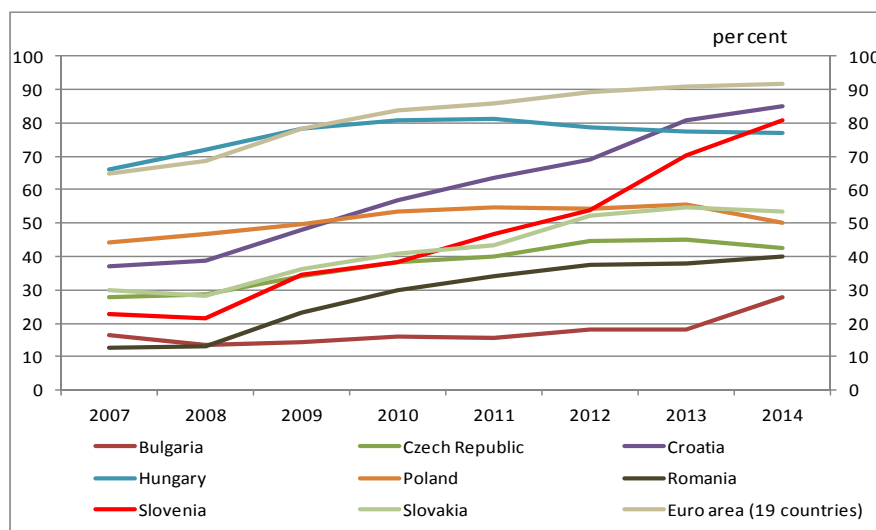


Figure 1: Debt-to-GDP in the CEECs and the eurozone between 2007-2014,
Source: Eurostat, 2015

Among the factors driving public debt levels high (see Appendix 1) it is apparent that primary deficit was much responsible to the accumulation of public liabilities. As most EU countries used Keynesian fiscal stimulus to spark economic growth, primary deficit was above 2% on average in the majority of the countries under examination after 2008. Hungary is a striking exception as due to its highest debt-to-GDP in the region reaching 80% in 2009 it had to maintain budgetary discipline through procyclical fiscal policy to exit the excessive deficit procedure. The interest expenditure of the government itself accounts for more than 3% of GDP every year, therefore the compliance with the deficit criterion

requires the positive balance of the primary budget. The other reason why it had to hold the budget tight was that the interest-growth differential was evolving in an unfavourable way, a tendency of growing out of debt only commenced in 2014. This resulted in a policy targeting primary surpluses between 2008 and 2014 in order to offset debt increasing real economic factors (real interest spending minus real GDP growth, see formula 1). The interest burden is the highest here, not only due to higher GDP proportional levels in the period average but also due to the highest risk premium in the region until 2014. Having a paralysed budget, the Central Bank of Hungary (MNB) had to introduce a credit easing programme in order to facilitate the recovery from recession. The Czech Republic was the other country characterised by moderate budgetary spending due to its mostly negative real GDP growth in the last couple of years. Poland was investing much in the economy and could maintain a growing GDP throughout the period. With the help of these three different strategies the Czech Republic, Poland and Hungary could almost return to the pre-crisis ratio of public debt by the end of 2014. The fourth Visegrad country, Slovakia, was performing somewhat less successfully due to the large economic stimulus packages but its continuously positive real economic growth prevented it from surpassing the 60% threshold.

Bulgaria and Romania had to cope with a sharp increase in debt as a consequence of high CDS premia together with a moderate growth. Romania could start cutting back spending before reaching any threatening level of and Bulgaria could totally avoid a significant increase in the debt-to-GDP ration due to their low initial levels. The evident losers of the crisis are Croatia and Slovenia. In the lack of reliable data it is difficult to gauge the role of the government in the sharp increase in debt in Croatia, but the real economic factors (interest and GDP growth) meant a strong contribution. Between 2012 and 2013 there must have been a strong stock-flow adjustment due to change in methodology that triggered government debt as there is no explanation for the extreme growth in the underlying data. The situation in Slovenia has become similarly severe in Slovenia, beside the fairly negative real economic conditions the government spent more than 10% of GDP in 2012 than its revenues mainly as a consequence of the bank bailout programme.

Despite the growing debt in the region between 2008 and 2014, it is difficult to find any relation between the public debt level of a country and GDP growth. Comparing the average of the eight years preceding the crisis with that of the crisis and post-crisis period we can ascertain that the economic performance of Central and Eastern European countries has become extremely diverse. Among the best performing are those having a debt-to-GDP ratio around 40-60% on average but there are outliers both in the low, middle and high debt ratio countries as well. As concerns the real GDP growth data in recent years the crisis does not seem to be over and there are signs of the threat of a renewed South Central European sovereign debt crisis (encompassing Serbia and Slovenia and other post Yugoslavian countries).

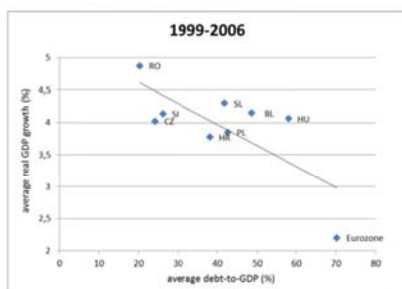


Figure 2 Public debt and GDP growth between 1999-2006, Source: Eurostat, 2015 (own figure)

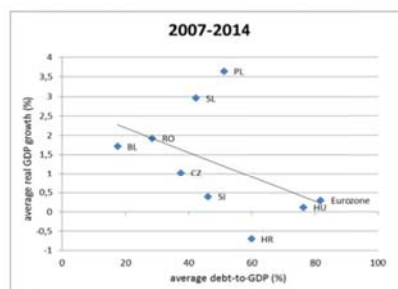


Figure 3 Public debt and GDP growth between 2007-2014, Source: Eurostat, 2015 (own figure)

THE STRUCTURE OF PUBLIC DEBT

On the basis of 2012 and 2013 data, reliance on foreign savings is most characteristic of the Hungarian public debt in the group of the Central European new members of the EU (Figure 4). The unfavourable structure is not simply a consequence of domestic investors' investment preferences but it is also a result of the above regional average of Hungarian public debt which might not be possible to cover from domestic savings. (In 2012 and 2013 the gross nominal public debt amounted to more than a quarter of the gross /non-consolidated/ stock of financial assets of the domestic financial corporations and households and some 70% of the financial assets of credit institutions therein.) It is a promising phenomenon, however, that households play a greater role as investors in the government securities market in Hungary than in the neighbouring countries. Among the countries under examination the financial sector of Croatia³ a country also having more than 60% debt-to-GDP enjoys more dominance in public debt financing (its share exceeds 60%) than in Hungary where this value is the lowest (hardly more than 30%). We can conclude that domestic financing has to have room for manoeuvre in Hungary and above all the participation of the financial sector can be extended.

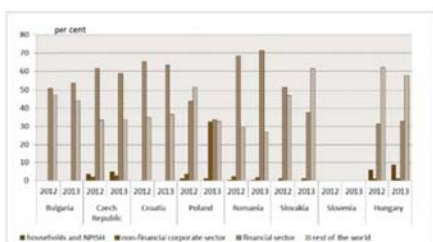


Figure 4 The ownership structure of public debt, Source: Eurostat, 2015 (own figure)

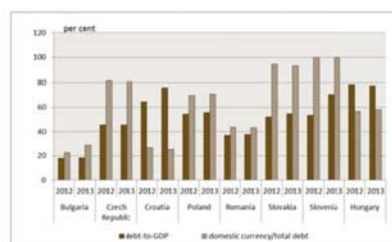


Figure 5 Domestic currency in financing public debt, Source: Eurostat, 2015 (own figure)

³ There are no sectoral data available for Slovenia in Eurostat and on the website of the Slovenian Ministry of Finance

Examining the currency denomination of public debt (Figure 5) it can be established that the share of domestic currency in total public debt is the greatest in Slovakia and Slovenia (above 90%) which is not surprising as the two countries have already joined the eurozone (Slovenia in 2007 and Slovakia in 2009.) The Slovenian Ministry of Finance does not use any benchmark in its yearly financing programme of the central government, it describes the set of securities used for financing and defines the debt management guidelines respecting the Public Finance Act (PFA). However, it also uses swap transactions in USD denominated bonds and this way contributes to the almost 100% euro dominated financing structure. Slovakia does not use any declared portfolio benchmarks. The two countries are very active in the international sovereign bond markets with the issuance of government securities (eurobond issues are dominant).

Among the countries outside the eurozone Croatia, Bulgaria and Romania have a significant part of their debt in foreign denominations (close to 60-80%). The economy can be characterised by strong dollarisation and euroisation in Southern Slavic countries and Bulgaria which can be well traced in the liabilities structure of banks (in 2012 the stock of foreign currency denominated deposits in total liabilities accounted for more than 40% of all liabilities and 70% of the total deposit stock in Croatia /Živko-Kandžija, 2013/). Whereas Croatia earlier aimed at reducing the share of foreign denominated public debt to around 40%, in 2011-2013 the financing plan does not include any benchmark for currency structure. (Bajo-Primorac, 2011). In its two-year government debt management strategy the Bulgarian Ministry of Finance puts emphasis on the importance of a diversified debt portfolio but does not use numeric policy targets. Romania sets target intervals for currency denomination, maturity and interest composition of public debt in its two-year debt management strategy.

Among the Visegrad four Hungary evidently occupies the last place as concerns financing public debt from domestic currency in 2012 and 2013 (with an approximately 55 per cent rate). According to the strategic benchmarks of the State Debt Management Agency a maximum of 45% in 2014 and 40% in 2015 can be the share of foreign currency denominated assets in total debt and the purpose is to gradually reduce this share further (ÁKK, 2014). The issuance of a growing share of domestic household securities is also an important feature of the debt financing strategy together with maturity and interest rate targets. The Czech Ministry of Finance publishes its yearly financing strategy, defines maturity, fixed and variable rate securities ratio and foreign currency denomination benchmarks (in the last years below 15% foreign currency exposure ratio) and offers saving bonds available for private persons in its diverse government securities portfolio.

The domestic financing of public debt has a lot of advantages as interest income does not leave the country, the surplus liquidity of financial institutions can be sterilised without monetary policy interventions and the decreased share of

foreign currency and external financing can mitigate the external vulnerability of the economy. At the same time domestic financing might lead to inflation and enhance the crowding-out effect. Growing government debt often goes together with raising interest rates. Broner et al., 2014 warn of the crowding out effect of unproductive investment (and corrupt spending) leading to increased CDS premia, slowing economic performance leading to default on debt if debt is dominantly financed from domestic resources. Since 2009 the declining (though volatile) interest rates in Europe, however, made it easier for governments of the CEECs to fulfil debt service obligations which somewhat contradicts theory.

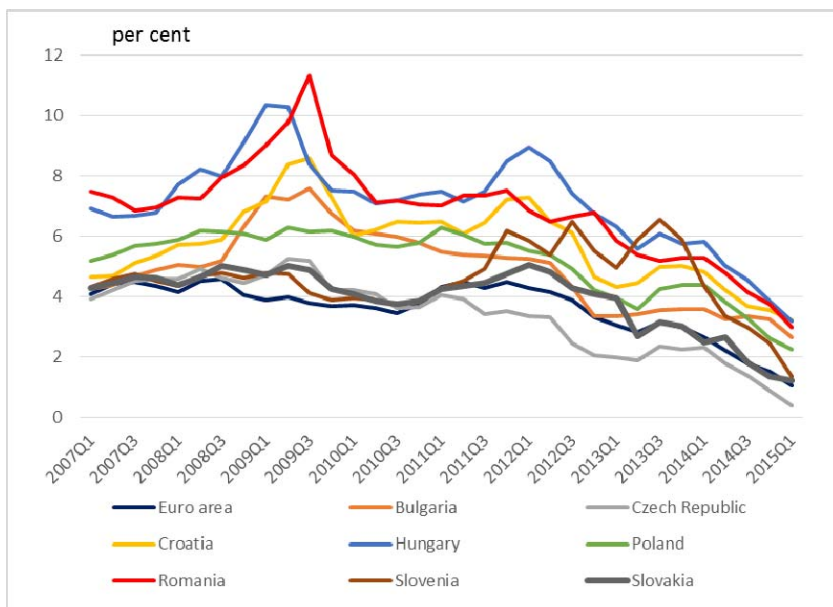


Figure 6 EU convergence criterion bond yields in the CEECs and the eurozone 2007Q1:2015 Q1, Source: Eurostat, 2015 (own figure)

In addition to the international interest rate tendencies, the loose monetary policy conducting continuous interest rate cuts, the reduction in external vulnerability and positive outlook on the future solvency of the country mitigates the risk premia. In the Central European region a stark decrease in the risk premia started in mid 2012 which was further fostered by the Council of the European Union adopting a regulation on short selling and certain aspects of credit default swaps.⁴ Since mid 2013 the Hungarian CDS premium seceded from the Croatian and decreased below the Bulgarian by the end of 2014 and came very close to the the Romanian probably due to favourable fiscal data and the

⁴ According to Horváth et al. (2013) thanks to the regulation Central and Eastern European premia shifted 50 basis points lower as compared to their projected path without regulation between October and November 2012. The regulation affected CDS transactions concluded before 25th March 2012 (the entering into effect of the regulation).

commitment of the government to reduce external debt. (In the 2012 and 2014 period the Hungarian debt-to-GDP ratio transcended by 40 the Bulgarian and 5-10 percentage points the Croatian.) Finally, at the end of 2014 the country risk of the emerging countries of the European region went the opposite direction to the regional average covered by the CEEMEA⁵ index.

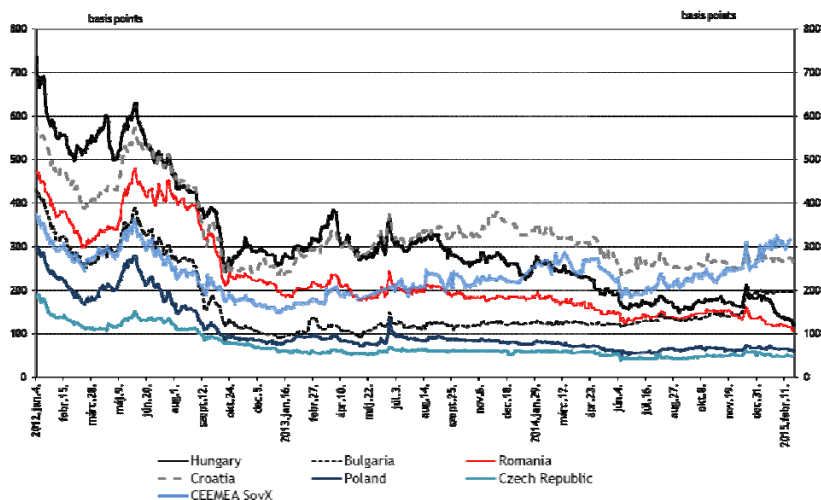


Figure 7 5-year CDS premia in emerging economies (2012. 01-2015.02.)

Source: MNB, 2015

The growing share of the domestic sector in the government securities markets, however, implies serious threats for the performance of the private economy. However, the negative impact of the stronger and stronger penetration of the public sector in the capital market can be verified by the way the increased public debt goes together with a declining gross fixed capital formation of the economy. The negative correlations have no statistical explanatory power though, they can serve as an indication or warning that crowding out is a natural consequence of government overspending.

Table 1
Correlation between public debt-to-GDP and gross fixed capital formation to GDP in the CEECs between 2005 and 2014

Bulgaria	Croatia	Czech Republic	Hungary	Poland	Romania	Slovakia	Slovenia
-0,34	-0,95	-0,93	-0,82	-0,5	-0,6	-0,85	-0,84

Source: Eurostat, 2015 (own calculation)

⁵ A Markit iTraxx SovX CEEMEA composite index groups countries in the following categories: European Union: Bulgaria, Poland, Lithuania, Hungary, Romania, Croatia, emerging Europe: Casahstan, Russia, Turkey, emerging Africa: Abu-Dhabi, South Africa, middle East: Dubai, Israel, Qatar.

THE HUNGARIAN SELF-FINANCING PROGRAMME

The Central Bank of Hungary (MNB) after a series of credit easing monetary policy measures launched the so called self-financing programme in April 2014 to promote commercial banks' purchases of government and other eligible securities. The aim of the programme is to decrease the external exposure of the country both concerning total external debt and public debt. The programme rests on realistic footing drawing on the example of neighbouring countries and also if we look back to the financing structure of the Hungarian public debt from the beginning of the years 2000 when both households and actors of the domestic financial sector represented a greater weight among the investors of government securities. The self-financing programme could not have been realised without the cooperation of the State Debt Management Agency, which reduced foreign currency issues to support domestic financing from the supply side.

The MNB aimed at increasing the government securities portfolio of banks with government securities and therewith decrease external exposure and also the surplus liquidity of banks piled up in central bank sterilisation instruments. The Hungarian banking sector is in the middle range among CEECs as regards governments securities to balance sheet total of monetary financial institutions, with a growing share.

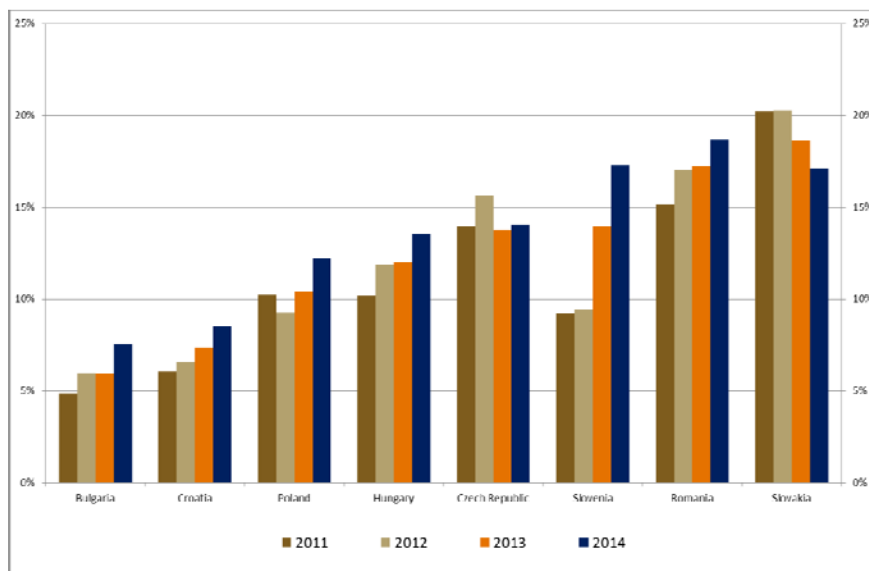


Figure 8 Government bonds to balance sheet total in the CEECs 2011-2014 (own figure) Source: ECB, 2015

The Hungarian self-financing programme included the introduction of the IRS tender, which is a variable to fixed conditional interest swap for covering

interest risk of credit institutions. Counterparties participating in the tender undertake to increase their eligible securities holdings by the amount of the IRS transaction. As a great portion of eligible securities selected by the MNB are government securities, the IRS tender contributes to the increase in the government securities holdings of banks. The success of the self-financing programme is – and therewith the positive impact of the IRS facility – can be underpinned by the change in the ownership structure in the forint government securities (especially bond) market. Between 2012 and 2014 the correlation between the time series of the daily forint government bond stock of monetary financial institutions and the foreign investors exceeded $-0,9$, which confirms that the banking sector and foreign investors were replacing each other in the government securities markets: the growing portfolio of the one was accompanied by the declining portfolio of the other. (MNB, 2015)

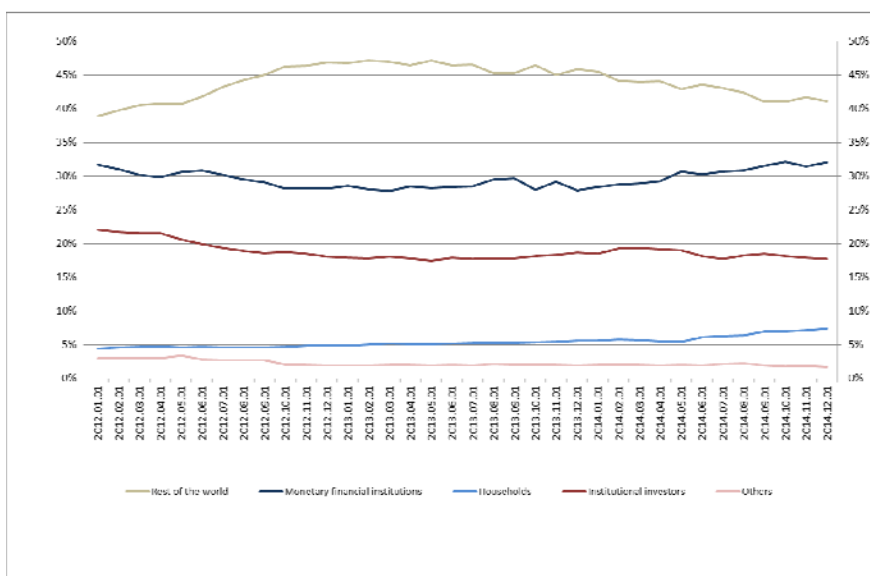


Figure 9 The ownership structure of Hungarian forint denominated government bonds 2012-2014. (percentage of total, own figure) Source: ÁKK, 2015

SUMMARY

After having pursued different public finance strategies after the system change, the CEECs came up against the necessity of applying fiscal stimulus during the years of the global financial crisis. The growing budgetary expenditures hit those countries especially badly which had accumulated high levels of public debt preceding the crisis. The loose fiscal policy measures contributed to a fast growing debt-to-GDP ratio in countries with low real GDP growth compared to interest rate levels. Despite the continuous policy rate cuts

and the ameliorating international environment there are signs of crowding out effect as a result of growing debt levels as a result of the anticyclical policies. Most of the CEEC countries offer a wide range of government securities which helps make debt financing more sustainable together with the fiscal rules required by the EU. The dynamics of the debt-to-GDP ratio in the Southern countries is still alarming, which intimates that the sovereign debt crisis might upsurge in the Eastern periphery of Europe again.

As Hungary could not stimulate the economy with fiscal policy measures due to its close to eurozone debt level and the excessive deficit procedure, the only way to strengthen economic performance was to deploy procyclical fiscal and expansionary monetary policy measures. Monetary policy in Hungary is also active in employing measures aimed at alleviating the debt burden on the government. As monetary financing is strictly prohibited in the EU, the MNB had to use unconventional measures to improve the structure of public debt which is the least favourable among the CEEC as regards the share of the domestic sector in the government securities market. If public debt financed by the domestic sector, however, is absorbed in unproductive investment and raises risk premia it can lead to crowding out and deteriorating economic performance as suggested by public debt theories.

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APPENDIX									
COUNTRY	Component/determinant of public debt	2007	2008	2009	2010	2011	2012	2013	2014
Bulgaria	Public debt to GDP	16,61	13,30	14,16	15,93	15,67	17,98	18,35	27,62
Bulgaria	Primary deficit	-2,26	-2,48	3,44	2,51	1,29	-0,17	0,10	2,12
Bulgaria	Interest to GDP	1,14	0,86	0,75	0,72	0,74	0,82	0,76	0,73
Bulgaria	Implicit interest rate	6,34	5,89	5,60	5,21	5,08	5,36	4,26	4,05
Bulgaria	Impact of the nominal GDP increase	-3,38	-2,08	0,14	-0,26	-1,33	-0,32	-0,05	-0,42
Bulgaria	Real GDP growth	6,90	5,80	-5,00	0,70	2,00	0,50	1,10	1,70
Bulgaria	Snow ball effect	-2,24	-1,22	0,89	0,46	-0,58	0,51	0,71	0,31
Czech Republic	Public debt to GDP	27,81	28,66	34,06	38,16	39,88	44,56	45,02	42,57
Czech Republic	Primary deficit	-0,38	1,11	4,27	3,08	1,39	2,47	-0,19	0,66
Czech Republic	Interest to GDP	1,07	1,00	1,24	1,33	1,32	1,43	1,35	1,32
Czech Republic	Implicit interest rate	4,21	3,78	4,24	3,94	3,51	3,60	3,05	3,06
Czech Republic	Impact of the nominal GDP increase	-2,37	-1,27	0,68	-0,27	-0,65	-0,25	-0,42	-1,90
Czech Republic	Real GDP growth	5,50	2,70	-4,80	2,30	2,00	-0,80	-0,70	2,00
Czech Republic	Snow ball effect	-1,29	-0,27	1,93	1,06	0,66	1,18	0,92	-0,58
Croatia	Public debt to GDP	37,06	38,87	48,02	56,98	63,71	69,23	80,61	84,99
Croatia	Primary deficit	NA	NA	NA	NA	4,48	1,91	1,87	2,24
Croatia	Interest to GDP	NA	NA	NA	NA	3,05	3,39	3,48	3,49
Croatia	Implicit interest rate	NA	NA	NA	NA	5,43	5,29	5,03	4,31
Croatia	Impact of the nominal GDP increase	-3,31	-2,70	1,96	0,43	-0,78	0,41	0,07	0,30
Croatia	Real GDP growth	5,20	2,10	-7,40	-1,70	-0,30	-2,20	-0,90	-0,40
Croatia	Snow ball effect	NA	NA	NA	NA	2,27	3,80	3,55	3,79
Hungary	Public debt to GDP	65,85	71,88	78,21	80,90	81,04	78,51	77,35	76,90
Hungary	Primary deficit	1,01	-0,43	0,08	0,40	1,30	-2,29	-2,11	-1,54
Hungary	Interest to GDP	4,07	4,08	4,53	4,14	4,18	4,60	4,57	4,11
Hungary	Implicit interest rate	6,63	6,57	6,12	5,45	5,38	5,79	6,08	5,67
Hungary	Impact of the nominal GDP increase	-3,60	-3,67	2,13	-2,24	-3,14	-1,46	-3,41	-4,96
Hungary	Real GDP growth	0,50	0,90	-6,60	0,80	1,80	-1,50	1,50	3,60
Hungary	Snow ball effect	0,46	0,41	6,66	1,90	1,04	3,15	1,16	-0,85
Poland	Public debt to GDP	44,18	46,61	49,81	53,60	54,80	54,36	55,70	50,13
Poland	Primary deficit	-0,33	1,50	4,85	5,13	2,36	1,07	1,53	1,24
Poland	Interest to GDP	2,18	2,13	2,47	2,50	2,55	2,67	2,49	1,96
Poland	Implicit interest rate	5,15	5,18	5,65	5,30	5,14	5,07	4,71	3,65
Poland	Impact of the nominal GDP increase	-4,83	-3,13	-2,89	-2,62	-4,01	-2,11	-1,53	-2,13
Poland	Real GDP growth	7,20	3,90	2,60	3,70	4,80	1,80	1,70	3,40
Poland	Snow ball effect	-2,65	-1,00	-0,42	-0,11	-1,46	0,56	0,96	-0,17
Romania	Public debt to GDP	12,73	13,16	23,21	29,90	34,19	37,34	37,99	39,81
Romania	Primary deficit	2,19	4,88	7,36	5,15	3,74	1,18	0,43	-0,13
Romania	Interest to GDP	0,71	0,70	1,50	1,50	1,61	1,75	1,75	1,61
Romania	Implicit interest rate	6,96	6,88	11,11	6,76	5,69	5,39	5,00	4,44
Romania	Impact of the nominal GDP increase	-2,09	-2,58	0,36	-1,02	-1,65	-1,81	-2,40	-1,66
Romania	Real GDP growth	6,90	8,50	-7,10	-0,80	1,10	0,60	3,40	2,80
Romania	Snow ball effect	-1,38	-1,88	1,86	0,48	-0,04	-0,06	-0,65	-0,04
COUNTRY	Component/determinant of public debt	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	Public debt to GDP	22,66	21,65	34,48	38,21	46,47	53,70	70,35	80,90
Slovenia	Primary deficit	-1,17	0,73	4,82	4,01	4,75	1,99	12,35	1,63
Slovenia	Interest to GDP	1,24	1,10	1,31	1,63	1,90	2,02	2,54	3,25
Slovenia	Implicit interest rate	5,33	5,22	5,77	4,74	5,06	4,24	4,74	4,77
Slovenia	Impact of the nominal GDP increase	-2,66	-1,67	1,07	-0,05	-0,67	1,11	-0,21	-2,08
Slovenia	Real GDP growth	6,90	3,30	-7,80	1,20	0,60	-2,60	-1,00	2,60
Slovenia	Snow ball effect	-1,42	-0,57	2,38	1,58	1,23	3,13	2,33	1,17
Slovakia	Public debt to GDP	29,84	28,20	35,98	40,93	43,44	52,11	54,59	53,58
Slovakia	Primary deficit	0,56	1,11	6,50	6,18	2,57	2,42	0,69	0,94
Slovakia	Interest to GDP	1,36	1,25	1,43	1,31	1,54	1,78	1,89	1,92
Slovakia	Implicit interest rate	4,97	4,53	4,73	3,83	3,93	4,22	3,70	3,60
Slovakia	Impact of the nominal GDP increase	-3,27	-2,32	1,93	-1,82	-1,72	-1,22	-1,00	-1,18
Slovakia	Real GDP growth	10,70	5,40	-5,30	4,80	2,70	1,60	1,40	2,40
Slovakia	Snow ball effect	-1,91	-1,08	3,35	-0,52	-0,18	0,56	0,90	0,75

Source: European Economy, 2015 (own table)

TOURISM

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DESTINATION DEVELOPMENT FOR CRUISING TOURISM

JEL classification: Z39

Abstract

Cruising tourism is the largest growing tourism sub-system. The importance of cruising tourism should be viewed in a far wider context than tourism itself. Namely, cruising tourism is maintained by numerous shareholders whose interests need to be reassured for the purpose of sustainable destination development. Tourism's sub-system, cruise ships, in comparison to the sub-system of coastal tourism, has its own specifics which may easily prove contradictory in itself and thus compromise sustainability. Due to the specificity of cruising tourism, it is necessary to identify factors relating to potential cruising controversy among the local population; namely, to destination development. Thus, this paper will show and analyse the system of shareholder relations which may yield good results, but also poor and so compromise destination development. The goal is to valorise these factors in relation to the shareholders who maintain this system efficient and/or inefficient. The basic hypothesis of this study indicates the system of relations among the shareholders which should be governed through management represented by all major shareholders. Namely, without sustainable management destination programs, large cruiser ports and, of course, cruise companies would encounter sustainability significantly compromised. Given we live in times

of constantly growing cruising tourism, on the one hand, and also the interest of elite destinations to achieve favourable results; this phenomenon should be explored in terms of creating effective partnership managements. Numerous questions arise to which this study shall present relevant answers.

Key words: cruising tourism, destination management, sustainability, partnership management, shareholders

1. INTRODUCTION TO CRUISING TOURISM AND DEVELOPMENT TRENDS

Cruising tourism, or so-called cruising, is a subgroup of nautical tourism rapidly progressing over the last 30 years, 11% in annual average. (TOMAS, 2006) Cruising represents a combination of sea transport, travel, tourism and vacation, (Lekakou,2004)and is defined as a sea vacation activity for passengers who pay for an itinerary (and other ship services) for minimum stay of one night on board a ship of at least 100 passengers. The Croatian Bureau of Statics define cruising as: “cruising is a tourist journey of several days according to a specific cruise itinerary (detailed travel plan)”. (DZS, 2013)

In global relations, cruising is divided into the following periods: (Duval, 2007)

- Initial return voyage offer from England to the Mediterranean with P&O vessels in 1844;
- The first cruising yacht was initiated in 1881 by ship-owner Oceanic Yachting Company in response to an article issued by the British Medical Journal which suggested sea voyages contribute to significant health wellbeing;
- The first purpose cruising ship, luxurious and adorned, was launched in 1900 for German ship-owner Hamburg-America;
- The popular “booze cruise” (also called: “cruise to nowhere” or “party cruise”) during the ’30-ties prohibition era in the United States;
- The conversion of migrant ships to cruise ships in response to cruising demand after World War II;
- The reduction of many liner cruise companies during the ’50-ties and ’60-ties when air travel became more convenient and accessible although this gave rise to very popular tourist packages “fly and sail”.

In review issued in 2011, CLIA, among else, indicates the following features of the cruise industry:

- *The cruise industry has the most significant increase on the overall tourist market. Since 1980, the average annual passenger growth in the cruise industry was 7,6%.*

- *The cruise industry is still young.* From 1980 to 2010, over 191 million passengers booked cruise journeys (two or more days). Of this number, an overall passenger index generated 67% in the last 10, while 39% only in the last five years.

- *The potential cruise market is quite strong.* In the next three years (from 2010, op AA), over 50 million North Americans have shown an interest in cruise voyages. To date, approximately 24% of the population of the United States of America has taken a cruise voyage.

- *The product of cruising is incredibly diversified with, practically, a vacation for everyone on board a cruise voyage.* In the last 10 years (prior to 2010, op AA), the industry responded to the extensive market and consumer demand which lead to additional new destinations, new ship concepts, new activities on board and ashore, new themes and longer voyages to satisfy the demanding changes of vacationers on the present market.

- expectations in the wide spectra of significant vacation features. Compared to other vacation categories, cruising consistently receives top ratings. The constant challenge of cruising is converting the imagined to new cruising possibilities.

- *Cruising is an important promoter for exploring destinations for the returning passenger.* 82% of cruise passengers agree a cruise vacation is a good way of sampling destinations they may wish to visit as tourists. Nearly 40% cruise passengers return for a vacation to a destination they first encountered on a cruise voyage. Tourists are no exclusively cruise passengers; rather they are often frequent tourists who use cruising as a resort mix.

Large cruiser cruising is organised through four corporations who intently process the global demand market and thus customise their supply.

Table 1

World Cruise Fleets

Description	Number of Ships	GT	Crew	Passenger Capacity
Total	298	17.319.825	187.054	461.275
• Carnival Corporation & PLC	102	8.075.165	85.838	215.791
• Royal Caribbean Cruises Ltd	41	3.996.286	39.585	98.769
• Mediterranean Cruise Line	12	1.153.977	12.465	31.209
• Norwegian Cruise Line	12	1.171.333	12.500	26.698
<i>Total World Fleet Percentage</i>	<i>56%</i>	<i>83%</i>	<i>80%</i>	<i>81%</i>
• Other	131	2.923.063	36.665	85.807
<i>Percentage Total</i>	<i>44%</i>	<i>17%</i>	<i>20%</i>	<i>19%</i>

Source: Seatrade Cruise Review, September 2012, 95-104

The cruising demand market is oligopolistic whereby four corporations hold 56% of the cruiser market and a total of 80% of the world's cruiser passenger capacities comprising 83% of total gross tonnage. The two most prominent corporations, Carnival Corporation & PLC and Royal Caribbean Cruises Ltd, manage a variety of cruiser brands on the market within their corporations while the remaining two, Mediterranean Shipping Company (MSC) and Norwegian Cruise Line (NCL), manage a singular cruiser brand for their entire company; whereby their markets are segmented according to cruising regions such as NCL or according to ship size and venues on board like MSC.

When considering cruising trend development, it is estimated that in 2013 there were 21,3 million passengers; whereas, in 2014, the expected figures are anticipated at 21,7 million passengers. (CLIA, 2014) The most developed markets are in Central and North America which have gradually reached saturation level and are now creating new rapidly growing markets. (Luković, Asić, Kiziliewicz, 2015). On the European market, especially in the Mediterranean, quality and attention catching destinations are on the rise.

Table 2

Global market capacity 2003 – 2013 (available days/beds in millions)

Region	2003	2008	2009	2010	2011	2012	2013	Increase w/i a 10 year period (%)
Caribbean	35,1	36,9	39,1	46,2	45,5	48,0	48,1	37,0
Rest of North America	14,4	20,0	17,7	16,5	16,6	16,0	15,0	-4,4
North America	49,5	56,9	56,8	62,7	62,1	64,0	63,1	27,4
North Europe	4,5	8,0	10,2	9,7	11,4	13,2	13,9	209,0
Mediterranean	13,7	27,8	29,4	31,7	38,1	35,5	35,7	160,6
Europe	18,2	35,8	39,6	41,4	49,5	48,7	49,6	172,5
N. America + Europe	67,7	92,7	96,4	104,1	111,6	112,7	112,7	66,5
Rest of the World	5,3	11,3	13,2	13,8	15,1	20,7	21,8	296,4
Total	73,0	104,0	109,6	117,9	126,7	133,4	134,5	84,2

Source: CLIA and G.P. Wild (International Ltd, stated in CLIA) 2014

The total increase of available days/beds on global level during the period of 2003 to 2013 was 84,2% with a significant increase of 296,4% in the rest of the world; while the most significant absolute increase was noted in the Mediterranean. Such a consequential increase in the rest of the world can be attributed to the region of the Far East including China as a strong tourist generating region as well as Australia as a region where vacation cruising is developing as a culture.

2. CRUISING IN CROATIA

The beginnings of cruising in the Republic of Croatia go as far back as 10th August 1844 when the steamship “Barone Stuermer” arrived in Dubrovnik from Trieste with 153 passengers on a “voyage of pleasure”. (Jerković, 2009) Large cruisers arrive at 22 ports/cities in Croatia of which Dubrovnik and Split are the most frequented.

Table 3

International cruise ships ports of call in the Republic of Croatia 2008 – 2012

Port of Call		2008	2009	2010	2011	2012
Dubrovnik	arrival	700	628	705	681	654
	passengers.000	851	846	916	985	951
	passenger/arrivals	1.216	1.347	1.299	1.446	1.454
Korčula	arrival	219	182	212	215	223
	passengers.000	34	56	73	75	79
	passenger/arrivals	155	308	344	349	354
Split	arrival	256	232	257	252	269
	passengers.000	121	132	172	182	245
	passenger/arrivals	473	569	669	722	911
Šibenik	arrival	45	90	62	95	92
	passengers.000	7	10	9	11	11
	passenger/arrivals	156	111	145	116	120
Zadar	arrival	97	72	80	98	57
	passengers.000	24	12	17	29	21
	passenger/arrivals	247	167	213	296	368
Rovinj	arrival	n/a	n/a	n/a	34	44
	passengers.000	n/a	n/a	n/a	7	6
	passenger/arrivals				206	136
Pula	arrival	75	17	20	13	28
	passengers.000	10	2	3	4	5
	passenger/arrivals	133	118	150	308	179
Croatia total ⁹	arrival	820	769	855	830	802
	passengers.000	936	1.018	1.094	1.141	1.155
	passenger/arrivals	1.141	1.324	1.280	1.375	1.440

Sources: http://www.port-authority-zadar.hr/i_hr.html; 21.08.2013:
<http://www.portdubrovnik.hr/>; 21.08.2013: <http://portsplit.com/> 21.08.2013:
<http://www.dzs.hr/> 02.10.2013: data Port Authority Šibenik

According to ports of call, data on arrivals and number of passengers on cruise ships show variable trends except for the ports of Dubrovnik and Split where the upward trend is consistent. These two ports have already been profiled as cruiser ports of call and listed in annual itineraries of companies with regular arrivals of their ships. The number of arriving passengers in the Republic of Croatia, in the period 2009 – 2012, has increased by 9% thus indicating increased ship capacities.

Subsequently, the increase of arrivals and number of passengers visiting Croatian destinations reflects an increase on cruising income.

Table 4

Cruiser income in major Croatian Port Authorities in 2014

Port Authority	N ^o . of Passengers	Cruiser Income	HRK/passenger
Dubrovnik	942.909	24.157.000,00	25,62
Dubrovnik County Port Authority	144.016	4.000.000,00	27,78
Split	189.107	4.052.338,40	21,43
Šibenik	-	556.974,00	-
Zadar	53.000	1.300.000,00	24,53
Total	1.329.032	34.066.312,40	25,63

Source: Survey conducted by Antun Asić, PhD in 2015

In 2014, five major cruiser ports had an income turnover of approximately 4,5 million Euros whereby the Port of Dubrovnik alone participated with approximately 83%. It should be noted that Dubrovnik has two ports, national and county.

3. CRUISING AND DESTINATION

Destinations and its attractions is a primary motive for tourists taking cruises. Between the cruiser and the destination lies the port with the sole objective of ensuring safe reception of cruisers and passengers and also destination presentation for the tourist's first time at given port.

As regards to receptive conditions of a port, for passengers and ships, cruise operators perceive this as a close co-relation in respect to a harbour's superstructure and infrastructure guaranteeing a safe and longer stay in port. Harbour development plans can extend port limits and further improve access during winter. Parallel with port development, the authors recommend simultaneous development of hinterland tourist attractions, especially in bordering regions of the European Union (EU) as a means of prolonging the season. More shore activities during winter means reduction of navigation time and increasing cruising amenities. (Lekakou, 2004)

Croatian cities – ports with their historical, cultural and natural tourist attractions have, since the beginning of the cruise industry, been recognised as a destination and port of call. Among them, Dubrovnik is mentioned as being the first cruiser port of call by steamship “Barone Stuermer”, on 10th October 1844, carrying 153 passengers.¹¹ (Moravec,1953) Development of cruising tourism, especially during the '70-ties, extended to the development of ports for such ships, not only in infrastructure but also in facilities servicing ships and passengers. A rapid development ensued at the beginning of the century after the political situation calmed down in the region.

Mediterranean cruise passengers are motivated primarily by historical landmarks, culture, lifestyle, art, shopping and gastronomy; whereas the Caribbean, on the other hand, for their favourable and mild climate during winter season, beaches and activities. The Croatian coastline and islands offer numerous *tourist attractions* which can be characterised as follows:-

- historical landmarks
- natural resources
- art and culture
- gastronomy
- beaches and activities

The Croatian coast, with remnants from the Greek and Roman culture period in the Middle Ages and more present history, is abundant with preserved monuments, locations and cities. Among the many, we can mention six cultural monuments under the protection of UNESCO: the Old Town of Dubrovnik and Trogir, the early Byzantine Episcopal complex of the Euphrasian Basilica in Poreč, the Cathedral of St. James in Šibenik, Diocletian Palace and mediaeval Split and the Stari Grad Plain in Hvar. Apart from the mentioned locations, there are many other historical landmarks from prehistoric times such as the *Vela Spila* in Vela Luka, island of Korčula, or the mediaeval Church of St. Donat in Zadar and the church of St. Euphemia in Rovinj of more recent times.

Of the eight national parks (NP) in the Republic of Croatia, seven of them are situated in coastal counties. National Park Brijuni is located near the port of Pula while NP Kornati, NP Paklenica and NP Krka are located near the ports of Šibenik and Zadar. NP North Velebit is located in the vicinity of the ports of Rijeka and Zadar while NP Plitvice Lakes falls under catchment region of Zadar. Our most southern NP Mljet is situated in the vicinity of the ports of Dubrovnik and Korčula. Apart from the above mentioned national parks, one may find other nature parks and landscapes which, together with cultural and adventure tourism, form numerous breathtaking tourist locations.

A variety of historical events, landscapes and influences in Croatia and its coastline have, in addition to construction of significant monuments and towns, resulted in cultural and artistic diversity in these regions. The most well-known form of cultural diversity is the diversity of folklore customs and music along the coastline as well as numerous cultural and artistic manifestations which, in most cases, are held in the open. Compared to intangible natural and historical heritage, the presentation of cultural and artistic attractions is not limited to the coastline itself as it can be presented in all regions of Croatia.

Although the Croatian coastline is not abound in Caribbean style beaches, individual ports like Dubrovnik offer cruise tourists swimming excursions. Adventure tourism, as one of the fast growing tourism forms, is rapidly developing along the entire coastline and some Croatian coastline features, such as the Canyon Paklenica and/or Cetina River rafting, are unique

experiences. These adventures are usually combined with gastronomic and oenological offers of traditional delicacies, specialities and finest wine.

Communication elements of Croatian ports are categorised differently depending on the port. This differs depending on the location of ports. This communication category includes the element of mutual distance between Croatian ports (Table 5), and distance from ports of call and/or departures to other countries. Similarly, their communication element with the hinterland differs from port to port.

Table 5

Distance between Croatian cruise ports in nautical miles

Port	Dubrovnik	Korčula	Split	Šibenik	Zadar	Rab	Pula	Rijeka/Opatija	Rovinj
Dubrovnik		49	105	129	159	208	238	244	256
Korčula	49		56	80	110	159	189	195	207
Split	105	56		39	71	117	133	139	151
Šibenik	129	80	39		40	86	121	127	139
Zadar	159	110	71	40		47	81	87	99
Rab	208	159	117	86	47		69	44	87
Pula	238	189	133	121	81	69		52	18
Rijeka/Opatija	244	195	139	127	87	44	52		70
Rovinj	256	207	151	139	99	87	18	70	

Source: Croatian Association of Port Authorities, ed. M.Thomas, Croatian Cruise Ports

Croatian cities – cruise ports in respect to mutual distances and distances between the main ports of call and/or departure ports are quite favourable, but not equally beneficial for all market niches. A relatively short distance between ports is suitable for coastal cruising with smaller ships (about 200 passengers) or for adventure cruise /barefoot cruise. Apart from the size of the vessel, this niche is a characteristic for leisure sailing, shorter navigating time and longer stay in port and, mainly, higher priced cruising services. Due to shorter navigating time and limited events on board ship, these passengers are more oriented towards port amenities. These categories of ports highlight island ports which, due to their receptive possibilities, can accommodate less capacitated ships.

4. PARTNERSHIP MANAGEMENT AND DESTINATION SUCCESS

The port is the first and most prominent contact cruise passengers have with their destination. Its role is handling cruisers on arrival as well as passengers and also routing them to their destination. In this capacity, several important participants are involved who create port services in a unique and comprehensive

port offer. Therefore, it is evident the port realises its role through a system of participants whereby the destination is not included.



Picture 1 Port and reception handling of cruiser tourists

Source: Papathanassis A., Lukovic T., Voge -I M., Cruise Tourism and Society- Springer Verlag, Berlin, 2012.p.29.

This chart shows organisational steps to be taken in order to satisfy the ultimate goal of tourists/ cruiser passengers, destination; thus it is evident that the role of the port is complex and represents a support for destination management. Insofar as the destination, its beauty and cultural heritage is the tourist's ultimate goal; we are obliged to accommodate such demands. Former practice, which is slowly changing, indicates organised services for tourists in sea cruising where the destination was not a participating factor. Consequently, it is safe to say, the basic cruise tourist's request was neglected. Their interest was not fulfilled to quality implementation. There are many reasons for this situation, from destination management's mediocrity to lack of communication and disparity with cruiser venues and major cruise companies. Particularly during the season, a targeted destination is inaccessible for the tourist and the real pleasure soon subsides. All this undermined the basic factor for cruise travel and "value for money" motto. In 2009, stagnation was recorded in the number of passengers. This situation modified cruise companies perspective and responded with a port joint development offer; and also closer co-operation with destination

management officials. This problem is especially prominent in the ports of Dubrovnik and Venice.

Can this be considered a new form of mutual development?

Surveys held in the more developed markets of Middle and Central America indicate that these regions initiated mutual investment projects between ports and cruise companies ten years ago. (Ross, 2006). Not only was co-operation between ports and cruise companies on Middle and Central America markets directed towards taking over struggling ports operating at favourable destinations, but also towards mutual investment plans to ensure success of ports and destinations. In this manner, this capitally powerful sea cruising industry grew and expanded by inter-connecting with each individual destination. This situation in Middle and Central America arose in the Mediterranean region as well. Yet, successful ports which are elite destinations such as Dubrovnik and Venice announce new forms of co-operation and mutual development. The main reason for this were conducted surveys showing a significant decrease in consumption (TOMAS,2006) as well as disgruntled tourists at destination. This is why all destinations should participate in the organisational system *cruiser/cruise company>port>destination* thus developing as a partnership factor within partnership management whose main goal, through contentment of tourists, is attaining higher profit at destinations. At the same time, one should not forget there are two destination groups; tourists arriving by cruiser and spending 4 to 5 hours at destination, and those non-cruiser tourists remaining several days for enjoyment and relaxation. Elite destinations, much like Venice and Dubrovnik, for the sake of concentration of tourists leave both groups dissatisfied and, subsequently, with next to none expenditure daily. Partnership management, together with destination participation, can solve this problem.

5. CONCLUSION

Situation specificity, referring to rare high quality tourist destinations along coastlines, indicates considerable stagnation in tourist consumption. The reason for this is over-capacitated destinations by both tourist groups; namely, perpetual hotel guests and temporary cruiser tourists. Over-capacitated destinations cause two negative effects: (1) daily decrease of tourist consumption, both for hotel guests and cruiser passengers; and (2) tourist dissatisfaction at destination. Surveys which are constantly being conducted show an upward trend of these negative effects.

A destination is the tourist's focal point, whether hotel or cruiser guest; however, to arrive at ones destination three unassociated managements are involved (1) management of cruise companies and ships (2) managements of ports for handling cruisers and (3) destination management, if it exists. All three shareholders are eager to increase income; however, each participates in their own manner. Management of cruise companies and/or ships is not interested in

tourist consumption at destination, but is for passengers' contentment. Management of ports for handling cruisers, as well as their owners, in most cases the country, is interested in accommodating as many cruisers as possible and, subsequently, cruiser passengers. Destination management aims to achieve substantial proceeds, primarily for filling the local city budget, thus focusing on overall financial results rather than the tourist. This is where the problem lies, in dissatisfaction and low daily consumption per tourist. Hence, interests differ, but should ultimately be reconciled. This inevitably points to the necessity of mutual linear management from arrival of tourists at destination. Namely, by constantly shaping partnership management in solving this problem in which the tourist is the focal point.

Dubrovnik and Venice are examples which illustrate the depth of this problem and the necessity of organising partnership management. One must be aware there is no unified model of action and/or organisation of partnership management as every destination is specific in itself. Venice is already notably working on this problem and Dubrovnik should join it in this endeavour.

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WELLNESS TOURISM – COMPETITIVE BASIS OF EUROPEAN HEALTH TOURISM DESTINATION

JEL classification: L83, I00

Abstract

Wellness tourism, as global phenomenon of the 21st century, has become an imperative for the successful development of health tourism destinations. Millions of tourists travel to destinations all over the world every day, with one goal - to preserve and improve their mental and physical health. Tourism market is characterised by intensive changes, so the task of the health tourism destinations' management is to follow those changes vigilantly, in order to be able to adjust their offer to the current trends. In that way, the creation of integral health tourism product is achieved, which will meet the needs of the contemporary customers, who are becoming more demanding and sophisticated. The aim of this paper is to present the importance of wellness tourism in the contemporary offer of health tourism destinations.

Key words: wellness tourism, health tourism destinations, Europe

1. INTRODUCTION

Spa tourism has for years represented the border area of medicine and tourism in spas with the basic aim of prevention, rehabilitation and treatment with a professional and controlled application of natural healing factors: climate, thermal mineral water, peloids, sea water, etc. However, changes and trends in the tourism market influenced the spa tourism out of the traditional framework of

healing tourism and prominent hospitalized service philosophy and increasingly encompass also preventive medicine forms or elements of wellness, which have even become the most important part of the offer. A large number of spas reoriented from classic spa contents to tourist, recreation and wellness contents (Milićević, Milovanović, Podovac, 2012).

Spas today are not just health resorts, rehabilitation centers, but modern health tourism destinations, visited also by healthy people with the motive of preventive health care, those wanting to use the wellness services and those who want to relax, detox (detoxification), recreate, lose weight, stop smoking, engage in sports activities, enjoy socializing, cultural environments and events, discover culinary specialties, etc. (Vesenjak, 2010). For spas to survive in a highly competitive and turbulent tourism market such a reorientation was necessary.

Today's spa tourism has taken over the image of the original and classic "thermalism", along with a wide range of different services, where water due to its natural relationship with the essence of the human being, it remains one of the basic elements, although it is used in different ways, with different objectives and with the new techniques (Gustavo, 2010).

2. WELLNESS CONCEPT

Wellness is a modern word with ancient roots. As a modern concept, the concept of wellness and wellness philosophy for the first time in scientific literature was mentioned by Dr. Halbert Dunn, back in 1959 in scientific articles "What high-level wellness means" and "High-level wellness for man and society", when he first wrote of a special health condition involving a sense of well-being where one is seen as unity of body, soul and mind. Dunn termed this state of personal satisfaction "high-level wellness." In that way he fused the concepts of well-being (being well, feeling well) and fit-ness (to be fit, being fit). Wellness means feeling good, not only being healthy but being happy and healthy. Already in 1961, Dunn wrote his first book on the subject of "High-level wellness." Thereafter, the term "wellness" started to be mentioned in the publications of numerous authors: Ardell (1977); Travis (1984); Benson, Stuart (1992); Greenberg, Dintiman (1997); Myers, Sweeney, Witmer (2005); Smith, Kelly (2006), etc.

The principles of wellness, however, are much older; they have their origin in the ancient medical practice and medical traditions dating thousands of years back. Ancient cultures of China, India, Greece and Rome had a very wise approach of maintaining health; they sought to emphasize the "whole person" or "harmonious" approach in order to feel and be well. Today, the concept of wellness reaches its full maximum, with modern application of ancient practices such as ayurveda, acupuncture, yoga, meditation, etc.

Myers, Sweeney and Witmer (2005) define wellness as a lifestyle oriented towards optimal health and good feeling (well-being) in which the body, mind and soul are united for the sake of a more complete life of man in his social and natural environment. It is an active lifestyle, which guarantees health, happiness and self-realization. It consists of four basic elements - physical activity, spiritual activity, healthy and natural nutrition and personal relaxation, i.e. relaxation. With these four elements, in recent years, as the fifth element appears also the beauty program, or facial and body care.

In general, the term "spa" is often cited as a synonym for wellness. Wellness is certainly a more comprehensive, broader and more complex concept than "spa". While the "spa" can be based only on one of the four elements of wellness (physical activity, spiritual activity, personal relaxation and a healthy and natural diet), wellness cannot function if missing even one of these elements.

The concept of wellness differs from country to country and opinions about what constitutes wellness strongly disagree. In most countries of Central and Eastern Europe wellness is viewed through the healing thermal mineral water and spa. In Southern Europe the emphasis is on the sea wellness, where the sun, sea air and wavetherapy and the Mediterranean diet contribute to the general welfare of man. In Scandinavia, the greatest importance is given to external activities such as Nordic walking, skiing, swimming in the lake even in winter. In Finland, for example, almost all people have saunas in their homes, which are part of their everyday wellness (Smith, Puczkò, 2009). On the other hand, extremely popular in Germany and Austria are Kneipp's treatments (named after a German priest, Sebastian Kneipp (1821-1897), based on five principles: water, herbs, healthy diet, exercise and discipline-balance (www.kneipp.com/kneipp_philosophy.html). In Asia, wellness is increasingly seen through spiritual activities such as yoga, meditation and various types of massage, through which energy is carried to a man enabling him to feel better. In contrast, the USA, Canada, England and Australia, wellness focuses on "daily spas" or "beauty and health farms", which offer cosmetic treatments and care, leisure activity and relaxation (Smith, Puczko, 2009).

Wellness today represents the lifestyle of the world. Wellness is a philosophy, as opposed to negative and reactive approach to life, emphasizes the positive and proactive approach to life that will increase and enhance all dimensions of human existence (The Global Wellness Tourism Economy, 2013). The main role of wellness is health care that is, maintaining a healthy body and spirit through the condition trainings, physical and mental relaxation and preservation of inner peace. For this reason, and due to a stressful lifestyle, the need for programs that creatively and effectively implement the sense of wellness has increased all over the world, including the importance of such programs in offers of health tourism destination.

3. WELLNESS TOURISM

Some authors consider wellness tourism as a subcategory of medical tourism. According to Mueller and Kaufmann (2001), wellness tourism is „the sum of all the relationships and phenomena resulting from a journey and residence by people whose main motive is to preserve or promote their health. They stay in a specialized hotel which provides the appropriate professional knowhow and individual care. They require a comprehensive service package comprising physical fitness/beauty care, healthy nutrition/diet, relaxation/meditation and mental activity/education.” Wellness tourism is a journey whose main goal is the achievement of balance and harmony of mental, emotional, physical and spiritual values of man (Spasojević, Šušić, 2011).

Wellness tourists are exclusively "healthy people" and the primary purpose of their trip is to preserve the health, i.e. the prevention. Smith and Kelly (2006) consider the wellness tourists usually "active health seekers" who are highly motivated and determined to play an active role in their own health. They often choose alternative from classical medicine and are not afraid to experiment. Most wellness tourists are already active at home in one of the types of activities (yoga, meditation, massage, healthy food, etc). Those who are not active at home often want to be more engaged in wellness activities on vacation. The main clients of wellness tourism are women aged between 36 and 55 years (most of them are around 47 years of age) and couples who come without the children (Tourism Development Strategy of Serbia, 2005). These consumers are highly educated and have a good financial state, i.e. are of greater of payment ability. Wellness tourists spent on average 130% more than the average tourists (Ellis, 2013). However, in recent years there is a clear trend indicating that the wellness travels are more and more attractive to younger population as well. Tourists from 20 to 25 years are the group increasingly interested in this kind of travel. Age group of tourists of 50 - 65 years still has the greatest potential. They seek common medical methods for health care, stay longer at the destination and their treatments generally last longer (Pupavac, Čeran, Škrbić, 2010).

Most wellness tourists are from the USA, Germany, Japan, France and Austria. These five countries account for 63% of the wellness market. Europe, with 203 million of wellness travels, is a leader among the regions in this industry, while considering the consumption in wellness tourism (158.4 billion USD); it is the second region in the world (Ellis, 2013).

Top 5 world's largest consumers in wellness tourism in 2013.

	Expenditures (\$ Billions)
United States	167,1
Germany	42,2
Japan	28,6
France	24,1
Austria	14,0

Source: Ellis, 2013

Wellness tourism is a true megatrend on the tourist market (The Global Wellness Tourism Economy, 2013):

Wellness tourism represents about 6% (524.4 million) of all domestic and international trips

Wellness tourism accounts for about 14% (\$438.6 billion) of all domestic and

international tourism expenditures

Wellness tourism is projected to grow by more than 9% per year through 2017, nearly 50% faster than overall global tourism

Wellness tourism generates 11.7 million direct jobs all over the world, etc.

What is important for wellness tourism is that it is not seasonal and can therefore be used at any time of year. Also, one of the characteristics is that wellness offer is used not only by tourists but also by locals.

4. SPECIFICS OF HEALTH TOURISM DESTINATIONS

Natural healing factor, as the basic attractiveness of the health tourism destination is a decisive motivator for visiting the destination and use of its products. Climatic, balneological, thermal and mineral water or other natural healing factors, along with other tangible and intangible products, make the health tourism destination. The preponderance should consist of partial products based on the resources of health tourism. Thus, the health tourism destination is the one that is offering such an integral tourism product in which there are mostly partial products that will be motivating for tourists wanting to come for health reasons, no matter whether for prevention, cure or rehabilitation (Hrabovski Tomić, 2006).

Health tourism destination bases its existence on the existence of natural healing factors, necessary facilities, technical equipment and quality personnel trained to treat and provide specific medical treatments to visitors and other services, but also on the existence of an efficient system that includes a complete offer related to tourist hospitality, reception, accommodation and entertainment, so that in that way, the stay and travel experience in the area are as pleasant as possible and provide the greatest possible pleasure to visitors (Marseu, 2011).

For a spa to be competitive and to achieve a higher demand than that motivated by previous need for the spa treatment, it must evolve into a health tourism destination. The offer has to be enriched by contents for providing various spa&wellness services in order to promote, stabilize and restore the physical, mental and social well-being with the help of natural healing and other environmental factors, as well as sports and recreational and cultural contents.

Aesthetic arrangement of tourist area: parks, walking trails, places for "relaxed" leisure, etc., are also necessary (Milićević, Milovanović, 2012).

Health tourism destination management needs to develop and optimally combine at all levels all the elements of the tourist offer, that is to manage the destination as a competitive unit, which should be strategically guided to secure and maintain the competitive advantage. The problem in modernizing the management of health tourism destinations is partly because the former spa tourism was developed as a form of tourism for which it was enough to offer healing thermal mineral springs, healing mud or air, some souvenirs and a modest accommodation, as users of services in spas were primarily visitors-patients (Hrabovski Tomić, 2006).

Health tourism product in every European spa center is defined as a set of traditional balneotherapeutic, wavetherapeutic and/or climatetherapeutic methods combined with modern medical procedures providing treatment, rehabilitation and prevention of medical conditions that arise on the basis of sedentary lifestyle and work, poor dietary habits and lives in a stressful and environmentally endangered, working and living environment (Franović, 1995).

Given that in spas equally stand: medicine and therapy, nature and culture, movement and relaxation, as well as communication and experience, it is their clear advantage in tracing new paths of development of wellness tourism compared to other destinations. Spas of Europe, as well as competent centers of comprehensive offers, recognized the importance of wellness and increasingly adapt to this new trend on the demand side (Hrabovski Tomić, 2006).

5. THE IMPORTANCE OF EUROPEAN WELLNESS TOURISM

From the moment when the essence of spa structure was a "doctor" and "bathroom" there has come to the structuring activity of modern spas in accordance with the criteria and greater flexibility and with various other professional profiles to be organized and managed. Spas have become the industry for products and services dedicated to the health and overall physical and psychological well-being of people, with a product line structured according to the type of clientele (Scopel, 2011):

- In addition to traditional therapies wellness activities, rehabilitation, cosmetic and spa treatments psychological and physical relaxation have been developed and even prevailed;
- Parallely a new culture of accommodation has been developed with an impact on the concept of the spa facility and spa environment, as well as the organization of network services according to the clients' needs;
- Expertise profile of spa and wellness personnel and appropriate education of managers are an essential condition for the quality of the offer.

Spa sector is a complex and structured phenomenon that has over the years changed its own position in the context of tourist activities; tourists are not only tied to the spa treatments, but also to sports and recreational, cultural and leisure contents, making the unipolar tourism to become multi-polar (Jovičić, 2008). During this long process of evolution the field of possible activities expanded within the wellness, which has also led to engagement of Eastern therapies and thus reaching a holistic concept that includes all possible options, taking into account the various aspects of life of the individual, from the treatment to psychophysical and relational aspect. In short, over the years, there has been a transition from curative to preventive and therefore to health promotion (Scopel, 2011).

Integrating traditional spa tourism with other forms of tourism is used by most European spa resorts (Jovičić, 2008). Spas that have adopted such a tendency and spread its own offer with numerous additional services, have progressively advanced in the tourism market, which is primarily related to the traditional competitive countries such as France, Hungary, the Czech Republic, Slovenia, Germany, Austria, Italy (Milićević, Milovanović, Podovac, 2012).

Further in the paper examples will be presented of famous health tourism destinations in Europe, attracting a large number of guests by the integrated health tourism product.

Slovenia has 15 natural health resorts and spas. All spas are included in the public health network of Slovenia (Development Strategy of the tourism product "Wellness" in Slovenia - "Tourism Well-being", 2004). In the spa offer not only present are balneotherapy and physiotherapy services but also the most modern offers in the field of well-being products, as well as new programs for maintaining health and preventing disease. Wellness centres in spas offer fitness, Turkish and Finnish baths, whirlpools and various baths and massages. Some wellness centres offer massages and other services that are based on the knowledge of the ancient East (shiatsu, reiki, ayurveda, sawadee, watsu, tui-na, scen tao, hot stone massages). Wellness services are provided only by trained professionals with certificates. Services of wellness hotels are divided in several categories (<http://en.slovenia-terme.si/offer/wellness/>):

- Spirit & mind – social and cultural events, sightseeing, workshops, lectures, etc.,
- Health – wellness services associated with traditional medicine and beauty clinics,
- Vital cuisine – a selection of various vegetarian and macrobiotic diets,
- Beauty and cosmetics – services provided in beauty centres, cosmetic massages, pedicure, manicure and hairdressing salons,
- Relaxation, comfort – various massages and baths, yoga practice, pilates and tai chi.

Among the most famous spas of Slovenia is Terme Olimia, including the wellness center "Orhidelia" - the best wellness center in Slovenia in the last 5 years, as well as the World of saunas "Termalia" - the largest in Slovenia (at 1,550 m²). Thermal spa Zreče offer wellness & spa resort Idyll: Sawadee Idyll Orient (Thai massages, Japanese rituals Hanakasumi, ayurveda), Nature Idyll (various programs of the best of nature) and Mountain Wellness on Rogla. Thermal spa Ptuj includes Valens Augusta wellness center, which consists of three parts: "Imperium" with the offer of a good feeling, thermal baths and saunas "Flavia" and the pool part "Vespasian" (ISSUU: Slovenia - Thermal Spas, Well-being, Healthy Living).

Due to the wide range, in 2012 the Slovenian spa resorts have recorded 786,700 visitors and 3,090,900 overnight stays (in 2000, there were 430,500 visitors and 2,117,900 overnight stays). Foreign guests account for 43% of tourist turnover. Most foreign visitors come from Italy, Austria and Germany (Statistical Office of the Republic of Slovenia, Statistical Yearbook 2013).

Hungary is a country with an abundance of thermal waters; healing thermal waters of high abundance can be found at more than 80% of the territory of Hungary. Apart from Japan, Iceland, France and Italy, supplies of thermal waters are the largest in Hungary. It has 1,300 thermal springs (Guljaš, 2010). Across the country, there are 350 "public baths" (Milojević, 2007). Services that are offered are the spa and wellness; they provide every kind of wellness&spa and physical therapy. Throughout history, bathing and spa tourism has always played an important role in Hungary. Today, a few hours spent in the "public baths" are part of the daily routine for lots of Hungarians. Wellness tourism in spas is represented through the following facilities, services and packages (Guljaš, 2011):

- Turkish or Roman baths;
- Treatment in a natural way;
- Dietary Center: treatment of the digestive tract (mineral water + bio foods);
- Thermal water + beauty treatments;
- Thermal water + eco-tourism;
- Thermal water + rural tourism;
- Thermal water and sport;
- Manager - treatments (vascular problems, digestive problems and cancer screening, wellness);
- Conferences and wellness;
- Family vacation, aqua-parks.

Among the most famous spas of Hungary is Gyula located in the park of the former castle Almasi. It has 19 pools some of which some are dark like oil because healing water of 72 ° C in them reaches from 2005 m depth. Then there is Miskolctapolca, a wonder of nature and the unique spa of Europe, known for its thermal baths that are situated in karst cave (Cave Bath). Huge cave system is filled with thermal water of temperature of 29°C, separated into 5 separate units, each for a particular mood. Spa Bükfürdo offers 32 pools with healing water. Lillafüred is another natural treasure, which rather resembles a fairy-tale village in the middle of the forest, and is a significant wellness center in the country (<http://spa.gotohungary.com/health-tourism>).

Hungarian spas in 2013 recorded 2,535,569 tourists (567,569 domestic and foreign 1,880,000) and 10,743,240 overnight stays (2,657,240 overnight stays of domestic and 8.086 million overnight stays by foreign guests). Most foreign visitors come from Austria, Germany and Russia (Hungarian Central Statistical Office, Tourism 2014). Foreign visitors visit more complex public baths in historic buildings (Turkish baths and bathing in the baroque style). From the accommodation facilities they prefer wellness and spa hotels (Global Spa Summit 2011, Wellness Tourism and Medical Tourism: Where Do Spas Fit?).

With thermal tradition dating back thousands of years, Italy is a country that can boast for about 2,300 mineral springs, located at 930 locations (Carella, Sommaruga, 2000). The connection between the spa and wellness center, which occurred at the beginning of the 90's led to the emergence of a new sector - spa wellness center, which is characterized by the use of spa products and services. In relation to tourism activities, progressively reduction of the number of treatments in spas has been replaced by the birth of a new kind of tourism and the composition of tourist flows has been changed with a shift from curative to prevention. Today, the spa sector is characterized by different activities, from bottled water to traditional spa services, to wellness, fitness and beauty services. Italy spas have become a modern destination for health tourism, with a line of products dedicated to health and overall physical and psychological well-being of people. In addition to traditional therapies, spas have developed a range of wellness, rehabilitation, beauty treatments and psychophysical relaxation (Scopel, 2011).

Abano thermal spa is among the most important spa complexes in the world. It is the largest spa in Europe specialized in mud treatment. It has 78 hotels and each hotel has its own thermal center (120 thermal pools). Thermal spa Merano is the most beautiful and most famous thermal spa on the "sunny side of the Alps." It contains 25 swimming pools. Montecatini thermal spa, the largest spa in Italy, offers a comprehensive offer of spa and wellness treatments in the thermal facilities, spa hotels and wellness centers. It has 190 hotels.

Spa tourism in Italy is the second in Europe in the number of visitors, just behind Germany, which registers about 8 million spa visitors per year (Carella, 2003). In 2013, spas of Italy were visited by 3,522,368 tourists

(1,980,326 domestic and 1,542,042 foreign tourists) who realized 12,764,902 overnight stays (7,171,862 overnight stays of domestic and foreign tourists 5,593,040). Most foreign visitors come from Austria, Switzerland, France and Germany (I.Stat - Italian National Institute of Statistics).

6. CONCLUSION

Exceptional growth rate of wellness market in recent years, both in America and in Europe, initiated the increasing and diverse offer in this segment. Modern spas / health tourism destinations have become the industry for products and services aimed at the health and general psycho-physical well-being of people. In addition to traditional therapies wellness activities, rehabilitation, cosmetic and spa treatments psychological and physical relaxation have been developed and have even prevailed. Expertise profile of spa and wellness personnel and appropriate education of managers are certainly an essential condition for the quality of the offer.

In order to meet the demands of modern tourists and be competitive on the international tourist market, destinations of health tourism in Europe today offer integrated health tourism product of extremely dynamic growth, which includes a diverse selection of wellness, combined with quality accommodation, gastronomic offer, sports, entertainment and cultural activities that complement the tourist stays.

Thus, modern health tourism destination should include: health institution applying alternative medicine with the professional staff, various wellness treatments with healing water, mud, or other natural healing factor, adequate facilities for this purpose, in-door and out-door swimming pools, high-level hospitality, architecture in accordance with the model of the spa center, natural environment with landscaped areas, in a quiet environment without traffic, noise and pollution, rich sports and recreational and cultural entertainment for leisure time of guests so that the stay and tourist experience in the area are made as pleasant as possible.

The concept of strictly specialized spa resorts is mostly obsolete. Arrival at spas (several shorter stays per year) to improve health, is increasingly replacing the traditional long health treatments. The important feature of modern health tourism refers to the integration of traditional spa tourism with other forms of tourism (wellness, sports and recreation and cultural entertainment, congress tourism, etc). Spas that have adopted such a reorientation and extended the offer by extra services have progressively improved in the international tourism market.

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THE HUMAN LIBRARY INITIATIVE AS AN EXPERIENCE-BASED TOURISM PRODUCT

JEL classification: Z39

Make the world talk and it is only the beginning of journey!

Abstract

The desire to get to know new cultures and their way of living has always inspired people to travel. Human library initiative provides precisely that - an opportunity to get to know different people from first-hand. It is a one of a kind of library where instead of borrowing books, one “rents” people who tell their stories. This initiative is easily applicable in tourism: both in promotion of destinations and as experience-based products, which are increasing in demand. The goal of this paper is to introduce human library as a new experience based tourism amenity that will disclose interesting stories about the destination and its residents in different languages. The development of the initiative for tourism purposes and the comparison of living books and other in-destination information provision services are provided.

Key words: human library, living books, experience tourism

1. INTRODUCTION

In the phase of soft tourism people are seeking a more close relationship with the destination they visit and communities they meet. The human library in tourism would provide on demand the interaction already going on between tourists and residents and make it more thematic focused according to the particular interests of guests. Although it lacks the spontaneity of occasional encounters with locals, it however represents an innovative way of discovering local community's lifestyle.

The role of living books in tourism can be dual: in-destination they can act as local community's lifestyle guides (experience tourism products) while outside the destination they can act as promoters / tourism ambassadors. This paper will deal further with their product function.

A peer to peer initiative worth mentioning that also provides interest based (i.e. gastronomy) interaction of locals and tourists is <http://bookalokal.com/>. This website allows tourists to book a meal from locals that is consumed with hosts in their homes. However here, the primary object of exchange is a typical local meal in a specific context.

This paper is composed of six parts. The theoretical review disclosed the human library initiative in detail - its history, the origin of the idea and current practices. It further deals with experience tourism and the importance of community involvement. A framework of application of the concept adapted to tourism is given in part three. A comparison of this and similar, already existing information provision services are developed in part four, followed by the implications and conclusion.

2. THEORETICAL REVIEW

2.1. The human library initiative

The Human Library is a non-profit international equalities movement that challenges prejudice and discrimination through social contact. It uses the language and mechanism of a library to make respectful conversations that can positively change people's attitudes, thought, perceptions and behaviours towards people who are different.

The concept of human library is simple, instead of checking out and judging a book by its cover, you "borrow" a person who has stories to tell gathered from a unique life experience. You can sit down for free with someone whom has incredible stories to share, they're able to answer your questions and tailor the storytelling experience to you.

In practice, the Human Library, explaining the diversity and positive difference, raises awareness and takes positive action to address some of the issues that can lead to bullying, abuse and hate crime.

The aim of the ‘human books’ is to be lent out to curious readers who will ask them questions to challenge our stereotypes and prejudices in a positive framework, where difficult questions are accepted, expected and appreciated. Books typically have titles that aim to represent a stigmatized or stereotyped group of people in the community. This could be a religious minority or sexual minority or other members of the community who are exposed to general misconceptions, stigma, stereotyping and or prejudice. The goal is to learn more about each other, to explore and move beyond stereotypes, and to develop a greater understanding of each other’s unique story.

2.1.1. The history of Human Library

In 1993, Copenhagen, five youngsters decide to found non-governmental movement called Stop the Violence to raise awareness and education to mobile Danish youngsters against violence after their mutual friend was brutally attacked and stabbed in the nightlife and survived. Few years later the organization counted 30.000 members all over the country. In 2000, Leif Skov director of Stop the Violence festival encouraged and organized events for Roskilde Festival to put focus on anti-violence (Humanlibrary.org, 2000). That is how Human Library was born and began to encourage dialogue and build relations among the festival visitors.

Human Library has always been a non-profit movement as they provide services that are free to their public. Organizing it is not very expensive and budget depending with the only resources needed being time and willingness to do the tasks; this allows for a wide range of events in different countries staged with very little funding. It is also preferable to organize the libraries in crowded areas like supermarkets, stations or even in the street. Readers and books are engaged in one-on-one conversations that last for about 30 minutes.

While some libraries are ditching their books in favour of laptops, e-readers, and mp3 players, there’s one library that believes stories are much better shared when they come from the source. People get a special feeling in the air when they realize that a policeman is sitting and speaking with a graffiti writer or a football fan is in deep chat with a feminist. Helena Warburg (2012) head of the Science Library at Williams, participated as a book titled, “Child of Holocaust Survivors.” Warburg reported that she wanted to participate because as a librarian she loved the message she would get from a book and the opportunity to be a human book instead of a written book was intriguing for her. To be able to share something personal about her was extremely intense and exciting. Warburg was surprised to learn the extent to which stereotypes persist. She added that each reader was varied and not once did someone ask the same question.

Today Human Library is developed and currently active in more than 60 countries and is still growing. The Human Library is associated with a lot of positive experience. In Australia, first country with a permanent Human Library,

it won the award for the social project of the year and award for the Grand Marketing Event of the Year. In Denmark, a Human Library bus tour was given The Little Brother Award. The Council of Europe became the biggest supporter of the development and promotion of Human Library programs and has become a crucial partner in the developing of a global promotion.

2.2. Experience economy and local community

Global tourist trends impose new perceptions of tourism and the emergence of "new" tourists. People who get involved in tourist trends are today becoming increasingly experienced. They are expressing an increased number of needs, not only within the destination, but also during their journey to the destination. Attractive destination elements must be complemented by additional activities and the destination excellence measured by expectations and experiences, i.e. realised experience. It is this very diversification of needs and motives for which people choose visits to and stays in a particular tourist destination which leads to a qualitative shift from the standard tourist offer. The accent, therefore, is on tourist product quality, by which a qualitative differential factor in competitive tourist destination positioning is achieved.

A modern tourist product, which is adjusted to the needs of new tourists no longer, includes a tourist partnership role, but individualisation and personalisation of the experience itself. Should such a base be accepted, it is to be concluded that traditional positioning of destination tourist offers on both macro and micro levels is no longer sufficient, i.e. positioning based on comparative advantages. By traditional positioning, it is not possible to differentiate the tourist offer from the competitors' tourist offer, which ultimately implies a request for competitive tourist offer positioning, enriched by new requirements and needs. Such an approach negates the conventional attitude that the existence and availability of comparative advantages is, in itself, sufficient in order to generate tourist demand and creation of competitive experience economy.

If tourism is interpreted as a social phenomenon, it is necessary to consider it not only at economic sciences level, but that consideration needs to be extended also to history, political sciences, sociology, geography and cultural anthropology (Cohen, 1995). Such a wider perception implies a lack of a one-sided perception of tourism where, as an observation base, the category of growth and not of development is taken. From that aspect, the space which represents a tourist base should not, at any time, have an exclusively tourist purpose, although it is the bearer of the tourist function. Therefore, no method of evaluation which is used to assess spaces with dominant tourist function is applicable, but rather the method of equilibrium between protection and tourist demand, which later also facilitates tourist offer market differentiation and positioning.

Taking into account the main, dominant motive for travel as a need to acquire an unrepeatably, unique, experience in parallel with increase in travel, we

come across an expansion of an increased number of tourist products based on the experience economy. Following socio-economic trends, i.e. interpreting recorded changes in the form of a demographic societal picture, a better education and a higher standard of living, a change in the structure of demand for products and services also can be noticed. A transition from service economy to experience economy occurs and increasingly the purchase of objects and services is exchanged for the purchase of experiences. Such purchases represent specific exchange of values for money, which is characteristic for traditional understanding of the experience economy. The development of tourist products established on experience as the key exchange value requires an interdisciplinary approach, which, together with the applied marketing activities and competitive positioning through identity affirmation, leads to the tourist offer positioning from the point of view of the experience economy.

The development of tourist products based on experience as the key exchange value requires an interdisciplinary approach. By means of further analysis, distinction imposes between perception of experience as a separate product and the aggregate set of experience economy. The absence of experience economy factors in the creation of a modern tourist product achieves extremely negative results. Historically speaking, the category of national economy competitiveness has suppressed the once dominant category of comparative advantage. The same situation can be noticed in observation of tourism, where added value progressively increases when competitiveness is based on experience economy.

De-regularised tourist offer growth irreversibly decreases the exchange value of the resource base and, accordingly, also the income from tourism. Setting out tourist offer concepts on the principles of experience economy represents also a regulatory phenomenon, which not only protects the resource base, but also, by means of the decrease in negative external factors, affects the quality of life of the domestic population. At the global level, the concept of experience economy has still been theoretically insufficiently researched and implemented. The complexity of defining the impacts emanates from the approach, i.e. perception of an individual and the intensity of his/her involvement at all levels. The base for creation of experience economy is the experience as a complex category. The experience and its nature, as well as its impact on a person, i.e. tourist is, therefore, explained first, before any further considerations. The experience which a person, i.e. tourist had in a tourist environment is individual and subjective for each of them. The realisation of an experience and its qualification depend on motivation, perception, value, significance, satisfaction and life style. Experience represents a psychological category, thus being the subject of psychological studies. Comprehension of experience is linked to the explanation of perception.

It is possible to link experience as a psychological process to the process of perception of stimuli. Perception is, therefore, an active process of organising, integrating and interpreting of sensorial information, which facilitates

familiarisation with and recognition of the meanings of objects, phenomena and occurrences in the environment. Persons do not have clear senses, they have precepts – as senses are only elements of which a complete experience is made up of (lat. *percipere* = adopt). Perception is not only a sum of elements, it is also the structure of those elements, active processing of all received and already existing information, their interpretation based on previous knowledge, memory, expectations, attitudes, motives, emotions and personal characteristics (Petz, 2010).

A tourist product within the tourist system represents a complex concept, which includes services, people, organisations and ideas with the aim to realise travel, stays and tourist activity outside of their familiar surroundings (Smith, 1994). Tourist product consumption affects experience realisation. Experience, therefore, depends on the type of tourist product.

Tourism and expenditure during the course of tourist activity, perceives tourism as a form of expenditure. Tourism can, therefore, be observed as a specific form of expenditure in which a change in the structure of expenditure occurs (Laws, 1995). During the course of tourist activity, perception of authenticity, i.e. the authenticity of content (of purchased products and services) affects expenditure. Tourists, therefore, expect authenticity in the destination (MacCannell, 1992) as opposed to pseudo-events (Boorstin, 1964). The search for authenticity in a tourist destination can also have negative impacts and bring pressure on sustainability and local community life. Tourist expenditure pertinent to authenticity is, therefore, observed in relation to modern and post-modern perspective. In modern perspective, tourists are always in search of authenticity which is perceived through authenticity of the presented content, while tourists in the phase of post-modern perspective are directed to activities, entertainment and enjoyment and do not care about the content authenticity (MacCannell, 1976., Urry, 1990., Cohen, 1995). Consequently, it can be presumed that tourists consume tourist products in relation to previous knowledge, experiences and expectations which, later, in a tourist destination, leads to expenditure driven by emotions and expenditure in the heat of the moment, looking for experiences and entertainment (MacCannell, 1976., Urry, 1990., Cohen, 1995).

Tourists expect a temporary escape from their everyday lives through something unrepeatable, spectacular and unique. It can be concluded that activities for the channelling of tourist expenditure structure within a tourist destination should be directed towards tourist expectations and realisation of their desired experiences.

Experience economy represents creation of a new value (economic and social), where experience is an integral part and starting point of a product or service and not only their expansion or added benefit. Systematic impacts of the elements of offer, therefore, must enable creation of memory, which then becomes experience, i.e., in fact, becomes a product or a service. Such perceptions emanate from research on the behaviour of consumers themselves or

service and product users. Initial papers define purchase for the purposes of a meaningful and realistic observation and thinking process (Holbrook, O'Shaughnessy, Bell, 1990). With the emergence of the criticism that cognitive models insufficiently define and explain behaviour, however, (Hoch, 1991; Holbrook and Hirschman, 1982) a change in the study starting point occurs. The emphasis is put on the experience and expenditure. Even Levy (1959) states that people do not purchase a specific product because of what it is intended for, but because of what they think it is, i.e., what it represents for them. Thus Holbrook and Hirschman, in 1982, define that products have two fundamental functions and that their indivisible wholeness is needed. They define usable and hedonistic product functions. Usable functions represent what a product or a service is literally intended for and hedonistic values are those which are described by users as entertaining, fantastic and pleasant for perception. The hedonistic function, therefore, illustrates subjectivity and individualisation of both products and services. Dhar and Wertenbroch in 2000 prove that, by the usable function in the goods consumption itself, people retain a neutral position in experience consumption, while hedonistic aspects represent a method for improvement in the experiential component of the expenditure itself. Despite the quoted efforts, academic literature determines a lack of a systematic approach in observation of a realised experience (Gentle et al., 2007).

By consumption of a tourist service as opposed to the experience, expectations and realised experience, the importance of the intensity of individual perception of the said experience and functions of use are noticed. In conclusion, the experience economy therefore is not a generic creation of the experience itself, but it is based on the individualisation of the personal experience by a person in his/her social surroundings.

All experiences are individual; some occur more or less within a social construct or are cultural. A common link for all categories is that they are markedly prone to emotional influence and that they affect the realisation of, let us say, a new person, discovery of innovations and research of the unexplored. Kelemen (1974) quotes that, apart from the emotional category, excitement creates a link and desire for progress. The main product in a destination, therefore, is experience. The perception of a destination is a combination of factors, comprising a "collection of experiences gained by the traveller" (Gunn, 1997, p. 32).

Increase in tourist travel, fast and expansive growth of the tourist industry, globalisation conditions and innovativeness confront the tourist industry with product differentiation. New tourist demand requirements condition the level of profits from tourism and even question market cost-effectiveness. In the conditions where competitiveness is extremely important, even crucial, a challenge is set for comprehension and a more detailed definition of the tourist experience, i.e. experience (Perdue, 2002). For a more detailed comprehension of the concept of the experience economy, tourism is exactly the best example of application of the concept. The first applications were implemented at the

beginning of the 70's of the 20th century (MacCannell, 1976, Dann, 1977, and Cohen, 1979). It is, therefore, deemed that tourist experience represents a unique, indivisible entity, pronouncedly filled with the emotional factor, containing almost immeasurable personal value. Tourism facilitates realisation of an alternative experience of time i.e. time spent far away from everyday life, usual routines and familiar, usual surroundings (Wang, 2000:216). Tourists wish for and expect a unique, authentic experience (MacCannell, 1976).

Tourist experiences cannot be purchased; they can merely be channelled or adjusted. Nobody apart from the tourist himself/herself has direct control over the power of perception and motives and, ultimately, their own value scale of the experience which they had. Tourists, therefore, independently combine elements such as time and skills in pre-expenditure set for experience creation (Rustichini and Siconolfi, 2004). When a tourist joins a tourist activity, nobody knows in advance either the result of the realised expectation, or the intensity of the experience. Tourist offers, therefore must be directed to the creation of experiences which satisfy momentary tourist needs. Tourist product components, the tourist product itself and the tourist service must be conceived in the manner that they increase the level of the realised experience. In other words, the value of the experience represents a functional orientation of an individual and his/her elementary social and intellectual needs, with the aim to experience excitement in a destination.

The complexity of the concept of experience economy and its elements requires more detailed determination. Innovation can be defined as a complex process in which organisations transform an idea into a new or improved product, service or a process of advancement, competition or successful differentiation in the market (Baregheh et al., 2009). Joseph Schumpeter (1961) focuses on the role of innovations in economic and social development, explaining innovation as a process of development in which an individual approach is contained. Innovation in tourism is generally characterised by distancing from the usual practice of tourist sector business, with the emphasis on quality (Hjalager, 2010).

When we talk about the tourist market, we think of it as a specific market phenomenon. Tourist market, like any other market, functions on the principle of interaction between offer and demand. As opposed to the traditional markets, this interaction is manifested differently.

The tourist markets' differential criterion is the division of tourist offer from tourist demand. The consumer (tourist) must be physically present at the site of the tourist offer creation. Most often, tourist offer communicates with tourist demand via tourist intermediaries, who, most frequently, appear on the demand side.

Destination, as a part of the tourist system, affects the experience creation. The impact of destination on the realisation of the experience is observed through the perception of tourist offer competitiveness and the phase of stay in the destination. The tourist system is, therefore, simply observed as an

interaction between tourists and the tourist destination. Such a perception is based on the production and expenditure of tourist products and services (Gunn, 1994). Tourists represent an element of tourist demand and tourist destinations, an element of tourist offer. Tourists are connected to the destination by means of traffic accessibility, information accessibility and by marketing mix elements¹. Furthermore, tourists are exposed to the influence of destination promotional activities, price-forming strategies and the development of tourist product in the destination. The interaction between tourists and the tourist destination becomes reciprocal and the interaction intensity and content are determined by the willingness of both sides (Formica and Uysal, 2006).

Tourist expenditure products represent products which are predominantly used by tourists, during their stay in the destination (accommodation, transport, food and tourist activity services). General consumption products are those products which are mostly used by the local population, but which can also be used by tourists (hospital, post office, hairdressing services, and lotteries). A tourist destination attractive base represents the totality of attractions and, as a rule, is the main motive for travel, being an equal factor in realisation of experience in a destination (Uysal, 1991), by which tourist destination competitiveness is affected.

Local communities are a basic element of modern tourism development. They are the focal point for the supply of accommodation, catering, information, transport, facilities and services for tourism development (Godfrey & Clarke, 2000). The term community can have a specific geographic meaning with a clearly defined spatial boundary and area and also refers to groups of people with a common interest (Chapman & Kirk, 2001). According to Bradshaw (2008, p. 6) Community as defined has historically shared boundaries one's geography of residence. For the purpose of this study, community is defined as a group of individuals living or working within the same geographic area with some shared cultures or common interests. This geographical definition of community is essential to understand how community development is linked to the ability of a community to improve tourism development. The role of the local community in influencing the tourism development activities are becoming clearer (Hall et al., 2005). McIntyre, et al. (1993, p. 50) states that local communities must organize themselves at all levels to play a more effective role in development, and interact with government and role-players at all levels. They must be able to identify potential tourism resources and attractions within their communities and support responsible tourism and community development. They should be eager participants in tourism decision making with respect to major tourism development for communities. According to Telfer & Shrpely (2008) there is a wide range of perspectives that can be taken on local communities in the context of tourism development. Local communities may be considered as the main

¹ A set of marketing tools by which an attempt is made to satisfy the target market needs, reach goals and support or empower the tourist product position in the target market. The marketing mix tools are: product, price, promotion, place, people, physical evidence and process (Križman-Pavlović, 2008).

attractions to community skill and knowledge while for others the community is simply the setting where tourism occurs. And for others still, a community may, in fact, stand in the way of other potential tourism development. Local communities are increasingly being drawn into tourism not only from the demand side, as tourists actively seek out new destinations and communities to experience, but also from the supply side, as communities are becoming aware of the potential of the products they can offer to tourists and the economic gains that can be made (Telfer & Sharpley, 2008, p. 115). Tourism is increasingly seen as a key community tool, with the recognition of its economic contribution in bolstering stagnating economies and its ability to unify local community residents (Fennell, 2003). At community levels, tourism offered opportunities for direct, indirect, and induced employment and income, spurring regional and local economic development (Aref, 2010; Coccossis, 2004).

A tourist destination, i.e. a competitive tourist destination, represents the destination which provides a higher level of realised experience qualification (Dwyer and Kim, 2003).

In order for destination marketing and management strategies be fully successful, creative opportunities should be sought to encourage the co-creation of positive, unique, and quality tourist experiences that can attract visitors efficiently (Binkhorst & Dekker, 2009; Jennings & Nickerson, 2006; Mossberg, 2007) and contribute to the competitiveness and sustainability of destinations (Ritchie & Crouch, 2000).

The sustainable approach for tourism aims to optimize the use of the local resources and harmonize needs of local stakeholders and community, while simultaneously focusing on the high satisfaction of tourists by ensuring a meaningful, authentic experience (Kastenholz, Carneiro, & Marques, 2012). Considering that tourists seek multiple experiences, destinations should articulate their endeavours in facilitating diversified, quality tourist experiences (Lane, 2009; Agapito et al., 2014).

2.3. The importance of foreign languages

Human Library can be used in tourism to promote destinations and provide tailored information to its visitors. Living books can easily convey interesting stories about destination and its residents in different languages. Significant is the role of tour guides and home residents who participate in storytelling to tourists. To make sure that tourists are getting the right message from the story, languages are important to communicate. The limitations in languages of guides are considered as a barrier to communication (Gordon, 2009; Tange, 2009; Kostić-Bobanović, Bobanović, 2013) and we suppose it is going to be the same for telling story as a living book.

For Croatia, tourism is one of the main branches in economy, especially in the coastal regions. The interest for Croatia's tourism is growing. Since 2005, Croatia was declared as one of the top destinations in the world three times, by National Geographic Adventure, Lonely Planet and Travel Leaders. In order to keep this level of interest it's necessary to present what Croatia has to offer through advertisement in different languages. Foreign languages are used in promotions, invitations and service providing. Nonetheless, foreign languages are important in making a first-impression with tourists (Hanlan, Kelly 2005; Jansen-Verbeke et al. 2005; Kostić-Bobanović, Gržinić, 2011.) As a result of a good first impression, international tourists and visitors will probably come back again visiting the country where they felt comfortable and secure. (Kostić-Bobanović, Bobanović, 2013). The knowledge of foreign languages has evidently the key role in the development of tourism which has a multiple role and is viewed as economic, social and cultural activity (Huges, Allen, 2005; Kostić-Bobanović, Bobanović, 2013). According to Vuković (2006) it is indisputable to state that it represents one of the most important activities of the modern, contemporary society around the world, but especially in Europe where languages have long been a fundamental and accepted part of educational programs. In today's globalized world, the importance of knowing foreign languages is a necessity and multilingualism is viewed as an investment in the future. With the continued expansion of the European Union, European language policies are moving towards the teaching of 'at least two foreign languages from a very early age' and describe the knowledge of foreign languages as a 'basic skill' (Kostić-Bobanović, 2013). However, not all foreign tourists can communicate in a foreign language, whether or not it is English. We suppose that a key to a successful Human Library is the ability to communicate with tourists by using their own language.

3. THE HUMAN LIBRARY INITIATIVE AS AN EXPERIENCE TOURISM PRODUCT

The pilot project development is briefly explained through the 4P marketing model. The responsible holder of the activity is the DMO (Destination Management Company) or tourism organisation. The 4P of a human library for tourism purposes should include:

a) Product:

- definition of desired topics (encouraging suggestions)
- tender launch for periodic job
- selection of candidates (public representatives of a certain group)
- storytelling education of candidates

- advance language courses (advisable)
- b) Price:
 - setting the price for individuals
 - setting the price for small groups (depending on library's capacity)
- c) Place:
 - organisation of work (availability of living books, payouts)
 - possibility of booking
 - post sales support
- d) Promotion:
 - media plan development
 - PR
 - DMO website
 - social media marketing
 - in-destination marketing (posters, brochures, info-kiosks etc.) etc.

It is advisable to arrange free storytelling for groups especially in the launch phase to popularise the product. It is possible to include as living books various associations active in the promotion of cultural values of a particular destination, but also local experts in various fields (e.g. historians, craftsman etc).

Human libraries in tourism could also be organised on voluntary or semi voluntary basis. An idea how to incite locals to apply could be offering them complimentary services such as library subscription or language courses. Donations for destination related causes could also be collected this way.

4. COMPARISON OF LIVING BOOKS vs. SIMILAR IN-DESTINATION INFORMATION PROVISION SERVICES

The most widely known information providers in tourism destinations are tourist guides and their online counterpart are virtual travel guides. These two service providers are the most closely related to living books in tourism, which, for the sake of clarity in their comparison, are located in already existing libraries. The comparison among those three is given in the following table.

Table 1.

Comparison: living books vs. virtual travel guides vs. tourist guides

Characteristics	LIVING BOOKS	VIRTUAL TRAVEL GUIDES	TOURIST GUIDES
Personal contact	Yes	No	Yes
Mobile	No	Yes (if accessed on mobile devices)	Yes
Visual experience of the storytelling	No (it is however possible to use visual tools)	Yes (virtually)	Yes (physical)
Language barriers	Depends	No	No
Diversity of topics (including lifestyle)	Yes	No	Mostly no
Working hours	Fixed, depending on library working hours	24/7	Flexible, depending on arrangement
Professional staff	No, hastily trained	Not applicable	Yes
Communication	Yes	Yes, non-human	Mainly monologue
Exclusivity of service	Yes	Yes	Mainly no
Price	Low to mid	Complementary to low	Mid

Source: authors' contribution

Flexible working hours and professionalism are the main advantages of tourist guides. One to one communication, non stop working hours and price are the advantages of virtual travel guides.

The disadvantages of living books is the lack of visual experience of the story, the static location while its strength are two sense communication with real local people about a variety of destination topics lifestyle subjects of conversation at a small fee. Providing lifestyle storytelling in person could somewhat fill the current gap in the tourism destination marketplace.

By detaching living books in tourism from libraries, this experience product becomes more flexible and customized for today's mobile travellers. Lack of professionalism of living books in this case is not seen a priori as a disadvantage, on the contrary, it could provide a certain charm.

5. IMPLICATIONS

There are different aspects the introduction of human libraries in a tourism destination influences e.g. within the social component it encourages interaction, mutual understanding, helps fighting prejudices etc. There is an

obvious educational component with benefits for both locals (improved language skills, storytelling) and tourists (learn about the destination, its culture and residents). The model represents an entrepreneurial opportunity for locals and an innovative amenity for today's experienced tourists. It contributes to the revival of libraries (in case of use of those spaces) or other vacant buildings, without many modifications to existing places. This initiative is in line with sustainability as contributes to all of its three pillars.

6. CONCLUSION

Today's travellers are eager on making new discovers, thriving for new, capturing stories. The human library concept application could be an excellent response to the markets' need for 3E (Entertainment, Excitement and Education) products. Currently in the market there are not many tourism products offering first hand opportunity to meet the lifestyle of locals.

Unlike other tourism products that imply the supply side, in this case, resident communities are crucial, their stories, their lifestyle - they are the product itself. Getting to know local lifestyle from interactions with locals has thus developed from a "side effect" to a complete product.

Using existing libraries and/or other vacant buildings as indoor venues of the activity or practicing it outdoor makes this concept a low-cost one. As it contributes to improving visitors' experience, preserve destination culture, requires no construction works and generates new, although modest incomes, it is in line with sustainability goals of tourism destinations.

As peer to peer business models are growing in popularity, a possible development direction of such an initiative could be a global player in the industry (such as Airbnb for accommodation) specialized in living books and connecting locals to tourists.

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TRADE

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TRADE PERFORMANCE IN THE AUTOMOTIVE INDUSTRY OF THE EUROPEAN OECD MEMBER COUNTRIES

JEL classification: F10, F14, L62

Abstract

The paper addresses the question of international trade performance of automotive sector of 21 European OECD Member countries within the period from 2000 to 2009. The methodology of this research is based on the implementation of different trade performance indicators like intra-trade balance, industry trade, composition of manufacturing exports import penetration indicator and other important indicators. During year 2014 and 2015, international competitiveness of automotive European OECD industry showed positive signs. An increasing demand for vehicles boosted the supply that leads to better trade performance. The basic aim is to measure international trade performance in the automotive industry of OECD Member countries. The main results of paper indicate international competitiveness detected by measuring, evaluation of the automotive industry particularly on foreign markets, recommendations and proposals in order to reach a higher level of international trade.

Key words: automotive sector, EU countries, OECD member countries

1. INTRODUCTION

Global financial crisis in 2009 significantly affected the biggest automotive manufacturing countries with an unprecedented scale of market crash, rendering the automotive industry the hardest hit along with the powerful banking sector. The fall in vehicle sales in recent years and the possibility of delocalization of multinational companies made it necessary to find new development strategies that could guarantee the survival manufacturers. Furthermore, there was optimistic premise that the automotive industry crash is a temporary problem that can be prevailed through bailing out domestic companies and blocking foreign car brands. Instead, the automotive industry crisis has revealed several long-term and deeply rooted structural problems in industrialized countries.

From the supply perspective, automotive manufacturers have suffered from overproduction since the early 2000s, followed by decreasing relative productivity and lower returns from innovation. From the demand perspective, the declining sales reflect structural market situations such as a high level of car ownership and demography in developed economies compared to that in the emerging economies. The 2008 credit crunch brought these problems to the surface by breaking the model of pumping up sales through easy consumer credit with zero-down payments and zero-interest financing (Oh, 2014).

The recovery in the EU car market was recored in January 2015, as a result of an improvement in consumer confidence, retail incentives and new product launches boosted demand for majority of car brands. In addition, new passenger car registrations in the European Union and European Free Trade Association trading block rose 6.2 percent during the month to 1.03 million vehicles from 968,451 in the same month last year (ACEA, 2015).

Considering the EU automotive industry, it has to be stressed out that vehicle manufacturing is a strategic industry in the EU, where 16.2 million cars, vans, trucks and buses are manufactured. Automobile manufacturers operate some 290 vehicle assembly and production plants in 25 countries across Europe. The turnover generated by the automotive sector represents 6.9% of EU GDP. Furthermore, the automobile industry has ripple effects throughout the economy, supporting a vast supply chain and generating an array of business services. 12.9 million people - or 5.3% of the EU workforce - are employed in the EU automotive sector. The 3 million high-skilled jobs in automotive manufacturing represent 10% of the EU's manufacturing employment (ACEA, 2015).

Within the framework of the defined research problem, the scientific hypothesis of the paper is set up, namely, that it is possible to project state of international trade performance of the automotive sector within 21 OECD and EU Member countries by implementation of various international trade and competitiveness indicators.

In this relation, the basic objective of the research is to measure international competitiveness, objectively estimate international trade of the

automotive industry of 21 OECD and EU Member countries, and to propose measures and activities for their improvement of international trade competitiveness in accordance with the results.

The paper consists of five systematically interrelated parts. After the Introduction, the second part of the paper presents research methodology. The third part includes analytical framework and results of international trade competitiveness based on the analysis of foreign trade activity and international competitiveness of the automotive sector of EU and OECD Member states. The final part comprises proposals, recommendations and conclusions.

2. METHODOLOGY

Analytical approach is based on scientific results of several indicators that measure the level of international trade competitiveness of the automotive industry of the 21 EU and OECD countries. The above-mentioned indicators have been frequently used in contemporary economic research, which evaluate economy's structural strengths and weaknesses *via* the composition of international trade flows (Bezić and Galović, 2013). In another words, these indicators address the question of trade specialization and performance in international markets. The aim of implemented methodology also shows the importance of the foreign market for automotive sector in a country and what degree of domestic demand is satisfied by imports. Moreover, the most commonly used indicators, indices, and ratios that are to assess trade patterns and characteristics, and changes in them. Besides elementary and well-known indicators, this research uses basic indicators that are suggested by OECD Statistical Database (2014) and World Bank (2014). These indicators were used in previous studies (Bezić and Galović, 2013; Kandžija et.al, 2014, Bezić and Galović, 2014) of other European manufacturing sectors which have provided realistic, objective results of international trade performance.

Definitions of competitiveness provided by the Organisation for Economic Cooperation and Development (OECD) and the Department of Trade and Industry (DTI) indicate the importance of technological factors in achieving competitiveness. The Department of Trade and Industry (DTI, 1994) defines a company's competitiveness as an ability to produce certain goods and services, at the right time and price. The definition of the Organisation for Economic Cooperation and Development (OECD, 1992), from the micro aspect, includes competitiveness that refers to the company's ability to compete, maximize the profit and to achieve growth based on costs and prices by using technology, quality improvement and efficiency maximization of its products.

There are many scientists who research the relation between competitiveness and technological abilities. Scientists like Lall (2001) and Wignaraja (2003) and institutions like the Organisation for Economic Cooperation and Development (OECD) have confronted attitudes of other scientists

who are trying to define competitiveness only from the aspect of price factors by emphasising non-price factors, like technology. The discussion has led towards revision of traditional theories in the framework of the problematic of competitiveness.

There are two different aspects that define the term competitiveness more closely. The general macroeconomic aspect shows international competitiveness in frameworks of price factors. The microeconomic aspect, on the other side, is trying to define competitiveness at company level with non-price factors with an emphasis on the research of rivalry between companies.

The macroeconomic aspect is accompanied by internal and external economic balance where a special focus is put on the effects of non-price factors on competition. The microeconomic aspect considers the internal company dynamics which has an impact on the company's strength.

The microeconomic aspect refers to competitiveness at company level. The perspective as such includes rivalry between companies and its strategies. In the last few years the microeconomic aspect has implied influence of technology and innovation as new dimensions. Lall (2001) criticizes the neoclassical theory whose assumptions are based on the thesis that technology is accessible to all companies that have the ability to use technology at a technically "high" level. However, it is a long-term learning process which starts with export of technology and proceeds to innovations.

Some analyses of factors influencing the success or failure of efforts to promote industrialization and growth conclude that a growing level of intraindustry trade (plays an important positive role (World Bank, 2013). Intraindustry exchange produces extra gains from international trade over and above those associated with comparative advantage because it allows a country to take advantage of larger markets.

Intra-industry trade (IITR) represents the value of total trade remaining after subtraction of the absolute value of net exports or imports of automotive sector. For comparison between countries and industries, the measures are expressed as a percentage of each industry's combined exports and imports. According to OECD Statistical Database (2013), intra-industry trade of automotive sector is calculated as follows:

$$IITR_i = \left(1 - \frac{|expo_i - impo_i|}{expo_i + impo_i} \right) \times 100 \quad (1)$$

where in:

$expo_i$ - export activity of sector "i"

$impo_i$ - import activity of sector "i"

This index varies between 0 and 100. If a country exports and imports roughly equal quantities of a certain product, the index value is high. Whereas if trade is mainly one-way (whether exporting or importing), the index value is low.

The "contribution to the trade balance" or „CMTB“ makes it possible to identify an economy's structural strengths and weaknesses *via* the composition of international trade flows (OECD Statistical Database, 2013). It takes into account not only exports, but also imports, and tries to eliminate business cycle variations by comparing an industry's trade balance with the overall trade balance. It can be interpreted as an indicator of "revealed comparative advantage" (Balassa, 1965:93; Balassa, 1978:203) as it indicates whether an industry performs relatively better or worse than the manufacturing total, no matter whether the manufacturing total itself is in deficit or surplus. If there were no comparative advantage or disadvantage for any industry *i*, a country's total trade balance (surplus or deficit) should be distributed across industries according to their share in total trade. The "contribution to the manufacturing trade balance" is the difference between the actual and this theoretical balance:

$$\text{CMTB}_i = \left[\frac{(expo_i - impo_i) - (expo_{manuf} - impo_{manuf}) \frac{expo_i + impo_i}{expo_{manuf} + impo_{manuf}}}{expo_{manuf} + impo_{manuf}} \right] \times 100 \quad (2)$$

where in:

$expo_i$ - export activity of sector "i"

$impo_i$ - import activity of sector "i"

$expo_{manuf}$ - export activity of total manufacturing sectors

$impo_{manuf}$ - import activity of total manufacturing sectors

A positive value for an industry indicates a structural surplus and a negative one a structural deficit. The indicator is additive and individual industries can be grouped together by summing their respective values: by construction, the sum over all industries is zero.

Next indicator called "Export import ratio" shows exports as a percentage of imports. EXIM ratio can be calculated as follows:

$$\text{EXIM}_i = \frac{expo_i}{impo_i} \times 100 \quad (3)$$

where in:

$expo_i$ - export activity of sector "i"

$impo_i$ - import activity of sector "i"

Another simple indicator is used within this paper. Hence, this indicator (TBAL) is calculated in real numbers of national currencies and highlights the trade pattern of each industry. It can be seen in the following formula:

$$TBAL_i = expo_i - impo_i \quad (4)$$

Trade balance is one of the macroeconomic indicators which are used to gauge the competitiveness of a sector at national level. When exports exceed imports, the balance is in surplus, and when imports exceed exports, the balance is in deficit.

Furthermore, composition of manufacturing exports of goods indicator (XSHM) shows the exports in a given manufacturing industry (in this case EU and OECD automotive sector) as a percentage of total manufacturing exports. XSHM indicator is calculated as follows:

$$XSHM_i = \frac{expo_i}{expo_{manuf}} \times 100 \quad (5)$$

where in:

$expo_i$ - export activity of sector "i"

$expo_{manuf}$ - export activity of total manufacturing sectors

Finally, import penetration (MPEN) indicator can be calculated as a ratio of imports to the sector's production adjusted for the foreign trade balance (difference between exports and imports) according to the following formula:

$$MPEN_i = \frac{impo_i}{prod_i - expo_i + impo_i} \times 100 \quad (6)$$

For a given country, a value close to 100 in a certain industry, implies that domestic demand is mainly fulfilled by imports and domestic production tends to be exported (OECD Statistical Database, 2013). A value close to 0 means self-sufficient, i.e. domestic demand is mainly satisfied by domestic production. A value above 100 illustrates measurement problems which may occur when combining production and trade data. It is important to bear in mind that exports can exceed production.

3. RESULTS

In the analysis of the outlined problem, the starting point is identification of international trade performance of the automotive sector of 21 EU member countries and OECD countries in the period between 2004 and 2009. In order to analyze automotive sector, it is important to study ongoing trade within examined countries. Several indicators, which are based on export and import, can be used to measure the performance and competitiveness of a certain sector for each country. In a given year, the values of an indicator can differ between countries, which allow an international comparison. The value of an indicator may also

differ between different years, within a different country. When evaluating at Germany for example, one can examine the evolution of these values over recent history.

Before the initial phase of structural analysis of the implemented indicators, short overview of global vehicle production of passenger cars and commercial vehicle production is provided within Figure 1.

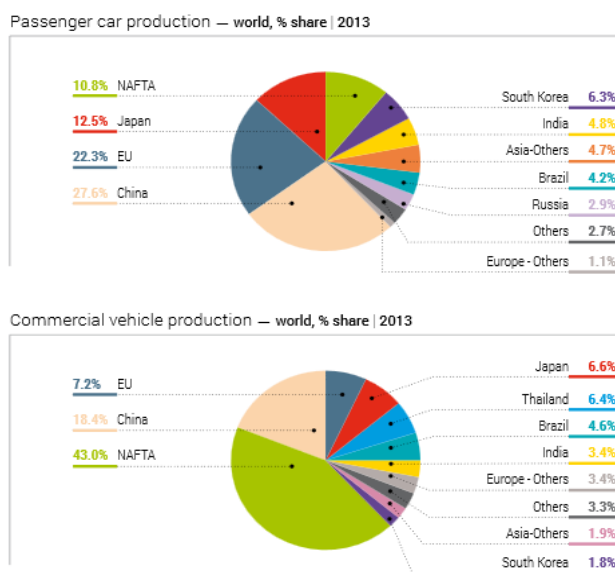


Figure 1 Global vehicle production in 2013

Source: ACEA, 2014

It is obvious that EU has one of the most favorable positions in terms of global car production in 2013. China as a world biggest exporter whose values shows bigger share in global passenger car production. It has to be noted that EU car industry has higher level of international competitiveness than Japan, South Korea and NAFTA. The contrast between the economic woes in NAFTA and EU and the relatively thriving performance in emerging economies reflect two major trends in the automotive sector that have developed over the past decade. Firstly, the past decade witnessed a rapid growth in terms of the global supply chain and overall outsourcing of manufacturing industries. Secondly, selling autos through easy consumer credit has become a widely used business strategy for the past decade. By nature, auto sales are extremely responsive to economic cycles of boom and bust since purchasing a vehicle reflects discretionary spending (Oh, 2014). Regarding commercial vehicle production, EU indicates weaker performance but indicates bigger share than Japan, Brazil and India.

In this particular study, six indicators will be calculated for the 21 EU and OECD member countries: IITR, CMTB, EXIM, TBAL, XSHM and MPEN. The data is extracted from OECD Database. Due to the unavailability of the data, some of the used indicators include shorter observed period.

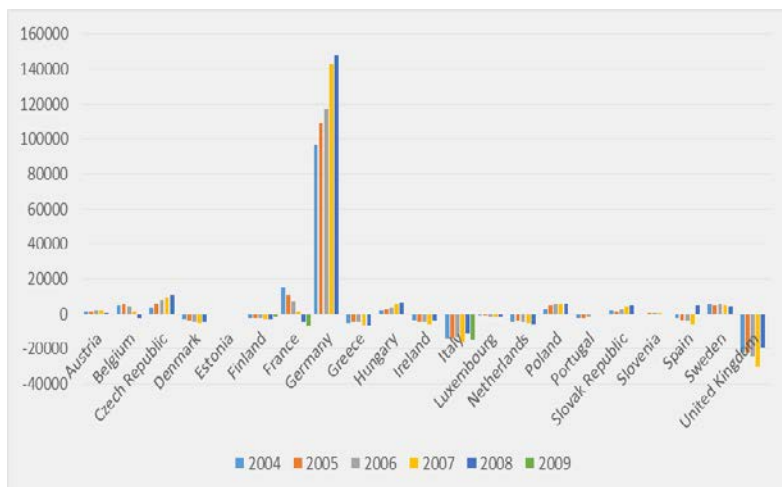


Figure 2: Trade balance (TBAL) indicator from 2004 to 2009

Source: OECD Database, STAN indicators, 2014

The trade balance is the difference between exports and imports in the specified sector. This indicator shows the competitiveness of a certain sector at the national level. It is shown in real number and in national currencies, so when comparing the countries the size of the company is important. From 2001 until 2012 the European Union's trade balance has multiplied because a lot of new Member States joined during this observed period. This integration of new Member States made free international trade possible between EU-countries and exports increased. In 2009, lower export values and import values caused a fall in trade balance due to the global economic crisis, but there was still a surplus in some countries like Germany, France, Czech Republic, Poland and Sweden. Of course, Germany represents a country that has recorded the biggest positive surplus in automotive industry. This country runs regular trade surpluses primarily due to its strong export activity of cars and other vehicles. It can be also concluded that some countries are characterized by high trade deficit which implies a dominant position of import activity with regard to export activity for these countries. One of the reasons could be smaller amount of production than production of bigger and resistant countries. The biggest trade deficit of the United Kingdom, Greece, Spain and also Denmark. Furthermore, the results of the export import ratio are presented in Figure 3.

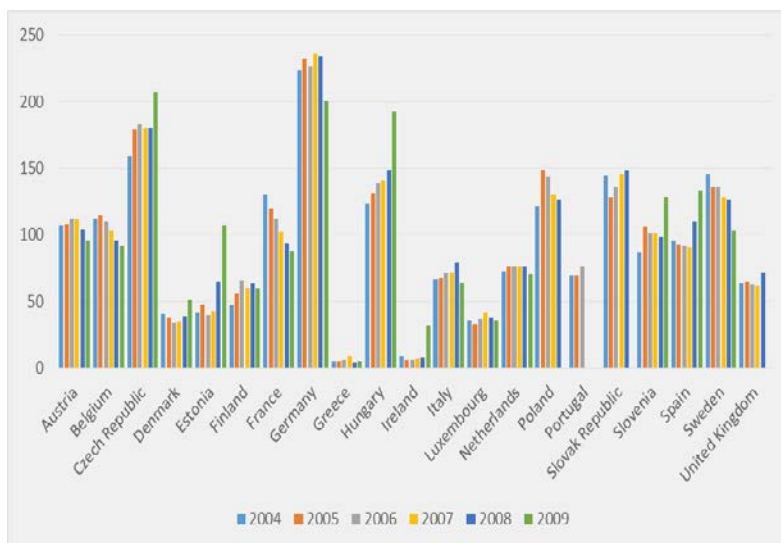


Figure 3: Export import ratio indicator from 2004 to 2009 (EXIM)

Source: OECD Database, STAN indicators, 2014

The export-import ratio identifies the exports as a percentage of imports. A percentage higher than one hundred means that exports are higher than imports and will consequently create a surplus on the national trade balance. As shown in the graph above most countries in the EU have an export-import ratio approximately between 10% and 240%. The EU exports as a share of imports has increased over the past 12 years. The proof can be also found in partially positive trend of increased value of export import ratio. From these calculations, it can be concluded that the export of automotive industry is generally higher than the import in the EU countries.

The exemptions are recorded in the case of Greece and Ireland. The reason for this situation can be found in the fact that Greek economy is still wounded by the consequences of global financial crisis. Another reason lies in the fact that Greece is more characterized as a service sector (for an example tourist sector) than real production sector. Ireland as a country is more orientated towards ICT and pharmaceutical industry. Greece and Ireland have a low intra-industry trade as well. The low ratio implies that these countries have higher import of automotive industry than export. The excessive amount of imports has always been a cause of worry for Greece economy. Even though imports decreased during recession, the volume remained a lot higher than exports. Thus, the economy had to rely on tourism and loans for filling the gap. On the other side, the highest values of EXIM indicator are recorded within the automotive sector of Germany, Hungary Czech Republic, Slovakia and Netherlands.

In addition, Figure 4 presents intra-industry trade of the automotive

sector of 21 EU member countries and OECD countries in the period between 2004 and 2009.

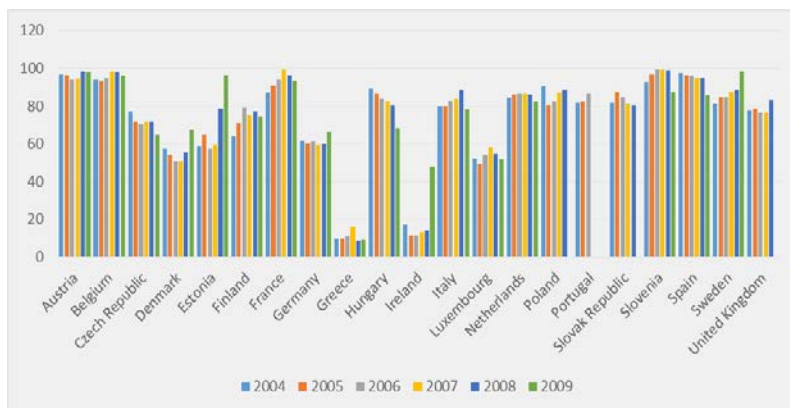


Figure 4: Intra-industry trade indicator (IITR) from 2004 to 2009

Source: OECD Database, STAN indicators, 2014

This indicator represents to what extent the export and import of a certain country are similar to each other. It can be stressed out that most countries in the EU or OECD Member states have a value between 10% and 100%. These high values mean that these countries have no major difference between the volume of export and imports.

In general, an intra-industry trade of the European Union was mostly decreasing during 2001 until 2012. However, there are some exceptions like Estonia, Ireland or Sweden especially in the observed period from 2004 to 2009. Most of the countries have high values of intra-industry trade indicator, this means they export and import roughly equal quantities in products of automotive industry. Interesting is that Greece and Ireland have significantly lower values for the intra-industry indicator. This means that there is more 'one-way traffic' considering the openness of these countries in the automotive industry. It is evident that they import more vehicles and cars than they are exporting, meaning their domestic production is not large enough to be able to export more than they are importing.

In 2008 and 2009, their exports have increased which indicate a positive sign of IITR indicator's growth. It can be noted that Ireland had a low index value in 2000 until 2006 but it started growing fast after this period and in the 2009 is Ireland's value index is four times higher. Belgium, Germany, France, Netherlands, represent a group of a few countries that remain stable at a high level of IITR indicator.

It is more suitable for a country to have a surplus on the trade balance and the preferred direction in this industry would be to export more cars and

vehicles than is imported. This could be easily seen in previous showed trade balance indicator.

Figure 5 represents the composition of manufacturing exports of automotive sector of 21 EU member countries and OECD countries in the period between 2002 and 2007.

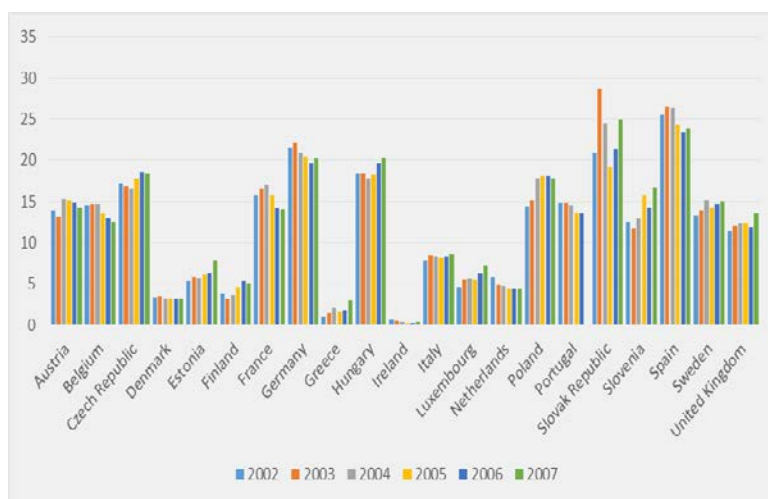


Figure 5: Composition of manufacturing exports of goods indicator (XSHM) from 2002 to 2007

Source: OECD Database, STAN indicators, 2014

This indicator shows the proportion of export for a specific sector compared to the total export of the manufacturing sector. This will thus identify how important this sector is in the outflow of manufactured products to other countries.

A positive trend is visible in case of Czech Republic, Sweden, Luxemburg and Estonia. Rapid growth of manufacturing exports of goods in Slovakian automotive industry can be clearly seen. One of the reasons could lie in establishment of PSA Peugeot Citroën Slovakia in Trnava and Kia Motors Slovakia in Žilina. Czech Republic, Germany, Hungary and Slovakia represent the group of countries with remarkably high exports in 2012. On the other side, production of cars and vehicles in Ireland is very limited and close to non-existent. The bottom of the chart belongs to automotive industries of Denmark and Greece which have recorded low values of implemented XSHM indicator.

Furthermore, the final results of import penetration indicator are presented in Figure 6.

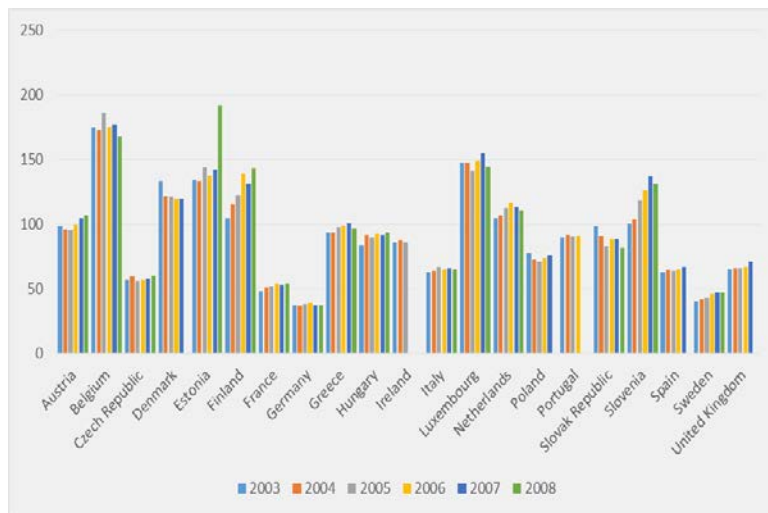


Figure 6: Import penetration of from 2003 to 2008 (MPEN)

Source: OECD Database, STAN indicators, 2014

Import penetration shows how dependant domestic demand in a certain sector is relying on foreign producers rather than on domestic production. It is defined as the ratio between the values of imports as a percentage to domestic demand for this specific sector. Smaller countries usually have higher ratios as they have smaller economies and will rely more heavily on foreign producers. For example, Belgium has an import penetration ratio close to value of 200 as it is a very open economy and exports a lot of domestic production while relying on foreign suppliers to fulfil a large share of its domestic demand.

Germany and Czech Republic, the countries that were important in the previous sections now have a low value of this ratio. This means that they do not rely a lot on foreign supply and that domestic demand is completed mostly by domestic production. Furthermore, high values of MPEN indicator High values of MPEN shows that automotive industry are depended countries like Belgium, Estonia, Luxembourg, Slovenia. Luxembourg is perfect example for import oriented country whose economy lies on the performance of service sector. Thus, Luxembourg is considered as high-income country that definitely shows perspective market for automotive industry as well.

Respective values of import penetration indicators is confirmed undoubtedly with exceptionally high export-import ratios and trade balance figures. As these countries have such high efficiency, in domestic production they create the possibility to have higher exports and lower imports which in turns ameliorate the trade balance. Finally, the results of the contribution to the trade balance are presented within Figure 7.

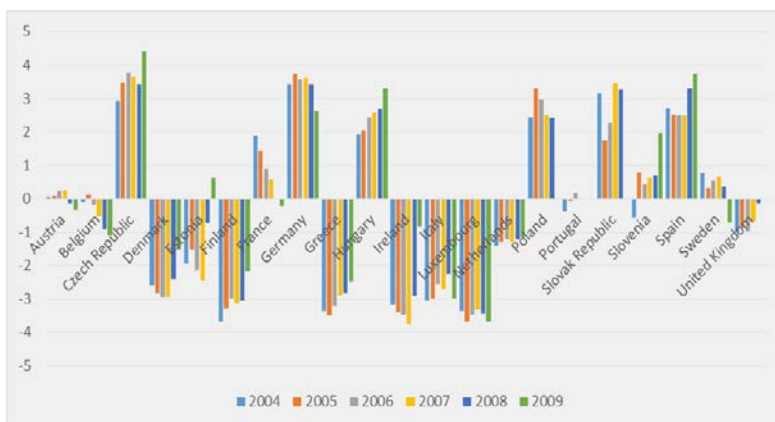


Figure 7: Contribution to the trade balance indicator from 2004 to 2009 (CMTB)

Source: OECD Database, STAN indicators, 2014

The contribution to the trade balance identifies the competitive advantage of a country in the specified sector. As it is compared to total manufacturing in this country, the indicator will then show how important the specific sector is for the country. The higher the value of this indicator the more important this sector is for the manufacturing sector as a whole. Eleven of the countries of the chosen EU countries had a structural surplus in automotive industry during the observed period. The other countries are characterized by structural deficit. Analysing the EU countries it can be concluded that Germany, Hungary, Poland, Spain and Slovakia have a value that is obviously higher than the other countries. This means that these countries actually have some kind of competitive advantage in the automotive sector. Weak performance of automotive industry can be found in case of Luxembourg, Netherlands, Ireland and Greece.

4. CONCLUSION REMARKS

The 2008 global economic crisis significantly influenced the biggest automotive manufacturing countries accompanied with scale of market crash while rendering the automotive sector the most intensive hit along with the banking sector. With the obligation to maintain stable level of employment and enhance industrial capacity, key automotive manufacturing countries intervened in the market through bailouts and subsidies for both producers and consumers at an unprecedented scale.

Germany is positioned as one of the European countries with the best performance of automotive industry. It is characterised by a small intra industry indicator compared to the other countries in the European Union. This means that these countries are relying more on one-way traffic in terms of import and export considering their openness in trade. In the case of Germany, this means they

export more than they are importing. This clearly comes forward in various ratios.

Firstly, the results of CMTB indicator are significantly higher in Germany, Czech Republic and Slovakia in comparison with other EU and OECD countries. These “extreme” values indicate the competitive advantage of these countries in the discussed sector. These countries equally have much higher export-import ratios, which indicates their advantage in international trade in this sector. EXIM indicator is the highest in case of Czech Republic, Germany, Italy, Hungary and Slovakia. Germany is the world's biggest EU and OECD cars and vehicles exporter. The trade balance indicator shows structural deficit or surplus. According to trade balance indicator, Germany stands out as a country that has the biggest positive difference between export and import activity. In addition, Germany runs regular trade surpluses primarily due to its strong export of cars and other vehicles. Its strength comes from its long and unwavering tradition and leading position in world automotive industry.

The XSHM indicator shows the exports in automotive industry sector as a percentage of total manufacturing exports or we can use other words and say that this indicator reflects the importance of this sector for manufacturing but also for whole economy. This indicator is remarkably high in case of Germany, Slovakia and Czech Republic. The import penetration indicator showed the lowest values for German automotive industry, due to its self-sufficiency in this sector. In another words, its production is efficient enough and limits the volume of imports. Smaller economies like Belgium recorded low values of import penetration within group of observed EU and OECD countries.

Last but not the least, it can be added that Germany, Czech Republic, Slovakia and Poland clearly show competitive strength in international trade of cars and vehicles are almost dominating the market in the European Union by having the highest efficiency leading to significantly better trade balances. On the other hand, countries like Italy, Luxembourg, Netherlands, and United Kingdom recorded less significant performance in automotive industry. Those countries seem as import dependable within the automotive industry. Several indicators showed that developed countries like Spain, Finland, and Denmark are also import reliable as well.

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DEVELOPMENT OF LOGISTICS CENTRES BY NETWORK THEORY

JEL classification: L14

Abstract

Logistics centres with huge product-stopping capacity and having the ability to create added value have emerged in recent decades. These centres have become network nodes between the co-operating organizations which accomplish the management of supply chains (networks) by connecting different modalities and networks with their infrastructure and informatics background. The effective operation of logistics centres appearing in business networks are usually managed by logistics supplier businesses (3PL/4PL). Defining the supply net as a complex network, logistics centres may be called hubs, the routes and relationships connecting the centres, or – by borrowing the term used in network theory – may be called edges. Taken into consideration the earlier results of network research, the present paper aims to find the correlations between the principles proved by Barabási and the growth possibilities of the centres (hubs) operated by logistics service providers. The conclusions drawn by Csermely concerning cellular networks provide further opportunities for the application of the results of theoretical network science to logistics systems. Considering the references above and the results of empirical research and experience gained among domestic logistics companies, the best responses to the challenges posed by business networks can be recommended to domestic logistics service providers. Furthermore, the results of network research can be set in parallel with the research conducted by Reszegi - Juhász on performance enhancement involving 4,600 Hungarian businesses. At the end of the

paper, an attempt is made to describe a system of correlation between network phenomena and the activities employed in implementing the strategies of logistics service providers.

Key words: networks, corporate performance, alternatives for supporting growth

1. INTRODUCTION

Each era has particular periods which determine what can be and what is worth for research. Network research can be an area of science which deserves undertaking now. As well as our biological existence, our communication and also our professional and social life depend on networks. Understanding them is not only necessary for scientists and laymen alike, but also indispensable since in one way or another we need to navigate the 21st century. The technologies of the future, our would-be communication and our whole biological existence will depend on networks. Networks are already present in the 21st century and we completely depend on them, are embedded in them in such a way that they have become an issue of such importance that without networks we are not able to “wonder about” the world anymore (Barabási, 2014a, based on interview). Man lives in symbiosis with nature surrounding him, although we tend to continually abuse it (environmental pollution), for which we are getting punished ever more often (natural disasters).

Our personal experience shows that the longer we stay in nature, the more observations we make about the life of animals for example, the more principles we will discover that can be utilised for mankind as well. The same applies to our inland scientists doing research in network theory, who are able to draw conclusions from the movement of pigeons and the relationship of individual specimens of the bird species examined that can be employed in the development of human communities (Vicsek, 2014), as well as solutions supporting the trends of future technological development (e.g. experiments with drones within the frames of Alibaba, Amazon, Google and UPS companies operating in the logistics market). It is interesting to note that Google’s drone testing is not allowed by the administration on the territory of the USA, so they are obliged to conduct them in (Világgazdaság, 2015). In nature the overwhelming majority of animal species live in groups just like we humans live our days in different communities. The conclusion has almost become a commonplace today that a coherent (working) community is able to give stronger and better responses to the new challenges of a changing world than the individual. In the interest of corporate competitiveness it is inevitable to deal with this issue since “the employees also constitute vital foundations of a corporation” (Reszegi - Juhász, 2014, pp 14). However, we Hungarians are not doing very well in our work with our faith in the success of team work and our productivity. According to the results of a recent survey, only 50% of domestic employees

show a higher performance when working in a team than working individually. Furthermore, the variegation of the composition of domestic team workers characteristically differs from the accepted norms in other cultures (Randstad, 2014; Adó Online, 2014).

2. BUSINESS NETWORKS

The quasi structure of the global economy is made up by business networks (Gelei, 2008), which have developed in response to the ever-changing economic environment and as a result of their network building these companies have also gained considerable competitive edge. „A network – and so business networks as well – is a structure in which several nodes are linked to one another through several lines. In business networks these nodes are formed by the individual business units like production companies, buyers, logistics or even financial service providers. The linking lines can be interpreted as the connections between these nodes”. (Gelei, 2008, p 4) The roots of business networks can be traced back to Japan where the keiretsu operate with the support of a major bank and clustered around a large company possessing massive supplier contacts (Fukuyama, 2007).

In view of the international models and knowing the distribution of domestic companies by their size (Central Statistics Office, 2014), we can only hope that the Hungarian small and medium-size enterprises will be successful as part of globalising business networks (Gelei, 2008). „According to the figures of the CSO on corporate added value published for 2013, in Hungary, similarly to international experience, productivity was much higher with companies in foreign ownership. In 2011, companies in Hungarian ownership produced 4,461 thousand forints added value, while the figure for companies in foreign ownership was 11,334 thousand forints. The latter figure is two and a half times bigger”. (Reszegi - Juhász, 2014, p 14) This is one of the reasons why it is so important for domestically owned SMEs to find those success factors (e.g. logistics solutions based on the results of network research or strategic decisions resulting from the integration of business networks), which could significantly narrow the currently existing gap.

Building on the results of network research we can find several domestic (Duma, 2005, 2007) and international (Barabási et al., 1999) publications or even on college students as a target group (Cserjés - Záborszky, 2011). However, in connection with logistics service providers taking part in business networks, we have not seen research results published that - based on a thorough revision of trade literature and built on practical experience – tried to draw parallels between the results of network research and corporate performance as well as the selection of activities supporting the strategies of logistics service providers.

3. LOGISTICS AND THE NETWORKS

Naturally, since the appearance of the logistics approach, not only the relations in production, but the whole economy must be treated as a network (Chikán, 2002 in Egri, 2014). With the emergence of the large product-stopping and added value producing logistics centres, such network nodes came into being within the co-operating organisations that by connecting different transport routes and sub-branch courses with the help of infrastructure and informatics can achieve the management of supply chains (networks). The flow of information within these systems is greatly supported by the Internet, and their efficiency is significantly increased by the application of innovations and technological development. The effective operation of logistics hubs appearing business networks is normally ensured by logistics service providers (3PL/4PL) that in their strategic planning also favour the network arrangement forms (Duleba, 2009). By interpreting supply nets as a complex network, logistics hubs can be considered as nodes and the connecting paths, borrowing the term used in network theory, can be called edges. If we accept the claims of Barabási that „behind the existence of complex networks there must be some laws” (Barabási, 2013, p 82.), we need to find the correlations between the laws already proven by him and the growth potential of the hubs operated by service providers integrated in logistics systems. Leaving behind the description of static, randomly constructed networks, let us turn our attention to the examination the results of the dynamically growing, scale-free networks.

4. GROWTH OF NETWORK POINTS

Barabási’s first conclusion stipulates the principle of „linkage on the basis of **popularity**” accepting the fact that we are more likely to choose the node which has twice as many links as another one. Due to the continually increasing, dynamic, scale-free networks and the popularity linkage principle, “a few **central points** with multiple links come into being”. (Barabási, 2013, p 99) This can as well be called the second conclusion the consequence of which is that „with the growth of the network the earlier points have more time for acquiring new links than the ones coming later” (Barabási, 2013, p 99). We may consider it the advantage of „**joining in time**”, which thanks to the effects of the two rules described above can significantly contribute to the growth of a central point. Returning to the world of business, Reszegi - Juhász point out that “it is not clear yet how much time is exactly needed for the benefits of joining to show, therefore the investigations taking a short time frame can be prove negative even if the impact actually exists” (2014, p 50). However, they allow that “in principle, if the market functions flawlessly, the differences between individual companies within one sector tend to level off. This can be the result of several, sometimes contradictory processes” (2014, p 16).

In their book, the authors quoted above and referring to the publications of Görg, Kneller and Muraközi dated 2012, note that certain products of more productive companies proved to be more marketable in foreign markets. In addition, “products exported in larger volumes and enjoying a longer market presence, the chances of their withdrawal were smaller” (2014, p 58). Since markets generally do not work in an optimal way, consequently „resources tend to flow towards the more productive ones, they employ more means and labour than previously and so their weight increases” (Reszegi - Juhász, 2014, p 16).

In his research into the behaviour of stress proteins, Csermely has concluded that „stress proteins stabilise the network of the cell of which they form a part” (2004, p 7). During his research he discovered the formation of nodes, their importance and necessity, but also found that with the removal of these nodes the complex networks generally fall apart. His main interest concerned the observation of the habits of stress proteins and he noticed that „when I block the stress protein, the lack of stability causes a difficult situation, but it does not mean death by itself” (Csermely, 2004, p 7). During his observation he realised that the bonding in the cell network „is stabilised by the elements which are **weakly tied** to one another. It is neither the element nor the number of interactions that are important here, but the **strength** of their interactions”. (Csermely, 2004, p 7)

In their seminal paper Watts - Strogatz described the phenomenon and characteristic features of the “small world”. Applying dynamic system models they pointed out that in this type of networks group formation and a high level of concentration result in peculiar consequences like increased spreading speed or performance (Watts - Strogatz, 1998, p 440). But what will happen to the latecomers who because of their age or idea enter later into an already functioning business network? By examining the process that separates the winners from the losers, we can see that the competition manifested in complex systems gives a chance to the better adapting companies (in our case points) to gain advantage over their competitors (possibly the older points) due to their “fitness” (Barabási, 2014b).

We can call this the rule of **competence** which basically “does not eliminate the mechanisms regulating growth and popularity linkage” (Barabási, 2013, p 109). Returning again to business relationships, the results of the research by Reszegi - Juhász show that „those lagging behind show little or no affinity to accommodate positive impulses (affecting competitiveness, productivity, etc. – author’s comments). Consequently, there is a chance that the weak will remain weak in the future as well” (2014, p 17). A similar description is found in Gladwell’s popular book quoting from Matthew, 25:29 “For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken even that which he hath” (Gladwell, 2008, p 38). Returning to the rules of nature, we can see that most living systems are capable of staying alive even in very diverse

environmental conditions (Barabási, 2013), whereas in the systems operated by man it often happens that due to minor malfunctions the whole man-made structure becomes unserviceable. Therefore, the study of **robustness** (error tolerance and solving ability) may yield important conclusions regarding operability since the operability of every system „is guaranteed by a complex, closely-knit network” (Barabási, 2013, p 125). Applying the above rules, Barabási and his team are able today to undertake to determine of a dynamic, scale-free network whether it follows „the rich will get richer” or “the winner takes all” scheme. This is the so-called Matthew-effect (Mérő, 2012). Let us see what parallels can be drawn between the above rules and the strategy choices and growth potentials of logistics service providers.

In order to do this first we need to clarify how and at what levels the above principles of network theory can be interpreted to logistics. The methodology of logistics differentiates two types of network (Duma, 2005):

- transport routes, in a wider sense networks mapping infrastructure (physical networks),
- non-infrastructure networks, i.e. linkages built on the previous physical networks (potential business links and abstract “routes”, or discrete flows of materials).

Duma conducted empirical research and calculations regarding the topology of logistics networks and on their graphs, in the course of which, through the modelling and quantitative analysis of logistics and certain transport and distribution systems he evaluated the topological features of the networks and identified the consequences. As the tool of modelling he applied the graph theory and a statistical analysis of the topological database of the mapped networks and was able to draw the following conclusions (Duma, 2005):

1. Physical transport and distribution networks tend to be rather non-scale free than scale-free that is the occurrence of nodes having multiple links is extremely rare, so the network theory of Barabási can be applied to them only in a limited scope.

2. At the same time, the linkage networks interpreted on existing physical networks represent basically different graphs which are mostly scale-free resembling the so-called small world, consequently the relevant results of Barabási can be applied to them.

3. Physical networks have an impact on linkage networks (e.g. the rail and train networks can be considered two separate ones) and so does the aspect mapping the physical network (e.g. part-networks, i.e. the fractal phenomenon).

4. Without the topology and an understanding of the special features of individual linkage configurations it is impossible to organize and manage a network properly.

In 2005, Duma came to the conclusion that in case of scale-free networks of logistics reference, it is the central points where we should concentrate our intervention resources. On the other hand, constraints of nature geography and infrastructure may arise, so the analysis of network linkage must also be included in the models employed to designate centres.

5. PARALLELS AND RECOMMENDATIONS

Research investigating logistics service providers on the national (Karmazin, 2014) and international (Kotonen, 2012) scene, have tackled the issues of strategy choice and potential development of the actors in the logistics market from different aspects, however, the results of network research have never been drawn a parallel with the activities of logistics organisations. Incorporating Egri's conclusions and recognising the importance of this issue we can see that „network theory is capable of becoming a useful toolbar for logistics, which in international logistics, production logistics and the processes of the global economy can make optimal arrangements more recognisable and by shortening the links can function as an intensifier for economic efficiency” (Egri, 2014, p 28).

The unbroken growth in global goods turnover and the projections and undiminished popularity of e-commerce – only in China an annual 20 percent growth has been forecast in this area until 2019 – (Forrester, 2015) continually ensures the dynamic development of logistics networks interweaving the whole world. The general conclusions and statements on network theory described above and the results of the publications of Duma (2005 and 2007), can be applied to the systems operated by logistics service providers as well. **Table 1** summarises the results and general conclusions of network theory and the recommendations concerning the logistics service providers operating logistics centres and committed to growth and activities supporting business strategies.

The basis for these recommendations is provided by the results of an empirical, primary and representative research conducted among inland logistics service providers (Karmazin, 2014), and the co-author's practical experience gained with his own logistics company as well as the conclusions drawn from the results of national and international research and scientific publications utilised in writing the present paper.

Table 1

Development of network points and the correlations of support activities used in implementing the strategies of logistics service providers

Development of a network point	Support activities implementing the strategies of logistics service providers
attractiveness	effective PR and marketing activities, commitment to high professional standards, openness to the environment, raising the level of trust in business relations, opening up to new sectors, establishing new contacts with Internet support
central point (size)	acceptance of a growth strategy within the company organisation, forming co-operations even with rival companies, strategic acquisitions
joining in time	flexibility, inductive behaviour, entering new markets, introduction and implementation of new services and technologies
strength of weak ties	accession to associations and interest groups, signing co-operation agreements with government agencies, law-enforcement bodies, participation in non-sectoral events, organisation and sponsorship of economic events, non-profit activities and support, belonging to clusters
competence	improving ability for change, sector-specific IT development, continuous training, openness to new phenomena
robustness	high standard application of ISO, implanting correcting mechanism into business processes (PDCA cycle), involvement, delegating, authorising decisions at lower levels, wide service and customer (industry sector) portfolio

Source: author's own design, 2015

With regard to the last point of the table above, a more specific term to robustness is disturbance sensitivity (stoppage sensitivity) and the problem solving ability. Based on the simulations conducted on avalanche error occurrence typical of transport networks, it has been proved that the effect of cascading collapses in the network can be moderated by reducing the stoppage and disturbance sensitivity of the individual discrete access points (Duma, 2005). The obvious conclusion resulting from this is that the production points as discrete sources contribute just as much to the sustainable operability and error sensitivity of a system as the quality, stability and sensitivity of the transport routes themselves. Stoppage sensitivity earlier was not included in the description of a well-functioning supply chain. Summing up, a production point or a whole supply chain may stop not only because it is not being supplied to or in, but also because it is unable to reset its own production to another plant size in case a reduction occurs in the quantity of goods being shipped out. As in such situations, thanks to the networking logistics links, transport is rerouted to other routes and transport sub-channels, we evidently see an avalanche error occurrence, the cause

of which must be sought not in the characteristic of the transport system but in the characteristic and error sensitivity of the sources and drains (Duma, 2005).

6. SUMMARY

The present paper through the acceptance of its statements and recommendations may play an important role in forming the strategy of domestic logistics service providers. However, the paper with its network theory approach and the resulting conclusions may offer a new way of thinking for the decision makers working at domestic logistics service companies operating logistics centres in Hungary. Due to the topicality and importance of the issue, a further investigation of the related areas and the continuation of scientific research seem to be justified. The conclusions and results of the authors referred to above are worth to be investigated, for example, by processing the empirical data of a properly selected actor in the market. Through the analysis of the connections network of the selected logistics company, the opportunity may present itself to prove the scale-free of the (not only) business links, the existence and strength of weak links and that this phenomenon and its consequence really exist. Furthermore, through the network analysis of shipments (i.e. the mapping of the transport of goods between two points) we can prove the scale-free of this type of mapped network.

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PERCEIVED SERVICE QUALITY THROUGH PRISM OF DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS OF CUSTOMERS: HYPERMARKET STORES' MARKET IN THE FEDERATION OF BOSNIA AND HERZEGOVINA

JEL classification: L81, M31

Abstract

There are dynamic changes occurring at the retail sale market. There is less emphasized manoeuvring space for differentiation. The retailers offer similar assortment of the products with similar prices and quality. This opens more space for differentiation based on providing excellent services. Service quality in retail can be important in creation and maintenance of relationship with customers, strengthening those relations and creating the loyal customers' basis. Influence of demographic and socio-economic characteristics on perceived service quality (gender, age, income, and education) has been confirmed by reviewing previous researches. Therefore, there are differences between the customers in service quality perception in relation to gender, age, income, and education. The purpose of this paper is to research the influence of demographic and socio-economic characteristics on service quality perception in retail on hypermarket stores' market in the Federation of Bosnia and Herzegovina. The research has been conducted on the sample of 861 examinees. According to its characteristics the applied questionnaire is quota sample with control variables: city, shop, gender, and age. The obtained research results will disclose the role of demographic and socio-economic characteristics in perception of service quality, and give guidelines to vendors on hypermarket stores' market for successful segmentation, market targeting, and creation of successful marketing strategies.

Key words: retail, hypermarket, service quality, socio-demographic characteristic, Federation of Bosnia and Herzegovina

1. INTRODUCTION

In the time that follows, survival and success in the retail market will depend on flexibility and efficiency in all the aspects of activities, including the superiority over the global competition in application of technology to reduce the expenses; and dramatic improvement of services' quality. Business success in retail is often related to advantage of improvement of the quality, while the quality in retail is related to all forms and characteristics of retail outlet, products, services, and people; the combination which will satisfy described and implicated customer's needs and wishes (Hasty and Reardon 1997).

Nowadays the retail is increasingly classified as a service. Contemporary customers have very sharpened eye for price, quality, and purchase experience itself. They require a lot. It is not enough only to satisfy their wishes, needs and preferences. It is necessary to thrill them.

When a customer enters retail facility he/she views products, analyses the prices and the quality, compares products and brings purchase decision. Besides these elements that can be touched or felt the customer is also under the influence of other factors such as image, ambience, music, and a level of the service. Most of the mentioned elements are relatively easy to copy, while the whole purchase experience that a customer passes through is unique (Pradhan 2007). In creation of overall purchase experience, which is different from the one that competition offers, service delivery, service of exceptional quality, can be the key to the company's success.

2. LITERATURE REVIEW

Information about demographic variables support market segmentation and targeting that are based on gender, age, income, and education (Stafford 1996). All demographic variables are strongly related to marketing prospective (Lazer 1994).

Previous researches have shown that expectations and perceptions of service quality depend on demographic variables (Gagliano and Hatchote 1994; Thompson and Kaminski 1993; Webster 1989). There is a significant relationship between service quality dimension and age and income (Gagliano and Hatchote 1994; Thompson and Kaminski 1993). Customers with higher income expect better service quality since they are willing to pay for it. On the other hand those with lower income have lower expectations and perceptions on service quality (Ganesan-Lim, Russell-Bennett and Dagger 2008).

Previous researches have proven that age variable has the most significant influence on service quality perception compared to all other variables. Age influences attitudes and behaviour based on service quality perception (He and Lai 2011). Numerous studies have also proven that gender is an important factor in service quality perception (Iacobucci and Ostrom 1993;

Kumar and Lim 2008). There is a significant difference in service quality perception based on gender.

3. RESEARCH HYPOTHESES

The following hypotheses have been set based on the insight in previous researches:

H1: Gender influences perceived service quality on retail market and there is a difference in service quality perception between male and female.

H2: Age influences perceived service quality on retail market and there is a difference in service quality perception between different age groups.

H3: Income influences perceived service quality on retail market and there is a difference in service quality perception between different income groups.

H4: Education influences perceived service quality on retail market and there is a difference in service quality perception between customers with different level of education.

4. RESEARCH METHODOLOGY

Data from primary sources are gathered in order to test the set hypotheses. Empirical research has been conducted at the area of the Federation of Bosnia and Herzegovina.

4.1. Sample

The sample consists of 861 respondents who were kindly asked to express intensity of their agreement or disagreement with claims about total service quality of bigger format shops (hypermarkets) in which they purchase consumer products (food and non-food products).

Field research (in cooperation with Ipsos d.o.o agency from Sarajevo) was carried out during February 2013 on the sample of 861 respondents. Applied sample is, according to its characteristics, quota sample with the following control variables: city (Sarajevo, Tuzla, and Mostar), shops (Konzum, Bingo, Mercator, and Interex), gender, and age. In order to be a part of the sample, respondents had to be regular customers of consumer products (food and non-food products) in one of the hypermarkets that were selected for this research. Hypermarket selection is based on Strategy of Chain-store Formats in the Federation of Bosnia and Herzegovina given in a study "Development of Trade and Domestic Market in the Federation of Bosnia and Herzegovina" (Group of authors, 2010). Konzum, Bingo, Mercator, and Interex have been selected among hypermarkets that are listed in the above-mentioned study. Robot was exempted

because there were difficulties in data gathering about formats of Robot's sales facilities in certain cities.

4.2. Research tool (Questionnaire)

Questionnaire is used as a research tool. It was developed using relevant scientific literature that was adjusted to chosen research topic. It consists of a set of claims that are related to total service quality with which respondents express intensity of their agreement or disagreement. Likert's scale of five intensities was used in it. Measurement scale for total service quality used for the research was the one tested by Dabholkar et al. (2000). It was tested using Cronbach alpha coefficient, and obtained results of Cronbach alpha coefficient of 0.864 indicate good measurement scale reliability. Questions about demographic and socio-economic characteristics of respondents are also part of the questionnaire.

4.3. Research results

Respondents' views ratings towards service quality dimensions are described using mean (M) and standard deviation (SD). Differences in ratings with regards to gender and level of education are tested using t-test for independent samples, while variance analysis (one-way ANOVA) with post hoc tests (LSD) was used to test age and income level. Level of significance is $p=0.05$. P values which could not be expressed with three decimal places are expressed as $p<0.001$. The analysis was conducted in SPSS programme for Windows (version 17.0, SPSS Inc. Chicago, Illinois, USA).

Table 1

Descriptive Statistics

		N	Total service quality M±SD
Gender	M	398	6.00±0.85
	F	463	6.11±0.77
Age (years)	Up to 25	196	5.98±0.86
	26 - 35	223	6.08±0.73
	36 - 45	124	6.12±0.81
	46 - 55	185	6.02±0.84
	Over 55	133	6.13±0.82
Income (BAM)	Up to 700	192	6.13±0.75
	701 – 1,000	203	6.10±0.73
	1,001 – 1,500	136	5.85±0.80
	Over 1,500	97	6.00±0.92
Education	- secondary school qualification	673	6.08±0.79
	- university degree+	188	5.99±0.86

Source: Author's calculations

According to the obtained research results there is a statistically significant difference in service quality perception between male and female

($p=0.045$). Average ratings show that female have higher ratings than male although there is relatively small difference in average ratings. Therefore the hypothesis H1 is accepted.

Table 2

Testing differences in service quality dimension ratings according to respondents' characteristics

	Total service quality	
T test	t	p
Gender	-2.006	0.045*
Education	1.363	0.173
ANOVA	F	p
Age (years)	1.055	0.378
Income (BAM)	3.950	0.008*

Source: Author's calculations

Table 3

Post-hoc tests for income groups comparison

Income (BAM)		Merchandising	Physical environment	Relationship with employees	Total service quality
Up to 700	701 – 1,000	0.919	0.608	0.638	0.747
	1,001 – 1,500	0.002*	0.009*	<0.001*	0.002*
	over 1,500	0.179	0.538	0.172	0.192
701 – 1,000	1,001 – 1,500	0.001*	0.002*	0.001*	0.004*
	preko 1,500	0.203	0.298	0.320	0.292
1,001 – 1,500	over 1,500	0.169	0.101	0.061	0.152

Source: Author's calculations

Also it is confirmed that there are statistically significant differences in service quality perception between the customers that belong to different income groups ($p=0.008$). Post-hoc testing was conducted to determine which income groups of respondents mutually differentiate. The obtained results have shown that the following groups significantly differentiate service quality perception: to 700 BAM (1) and 1,001-1,500 BAM (3) and 701-1,000 BAM (2), and 1,001-1,500 BAM (3). Respondents with income from 1,001 to 1,500 BAM have lower ratings than respondents with lower incomes. Therefore the hypothesis H3 is accepted.

Comparison of total service quality ratings concerning respondents of different age for has not shown existence of statistically significant difference. Differences in ratings of different age groups are relatively low, but it is noticeable that the highest ratings were determined by the respondents older than 55 years of age, and the lowest with respondents younger than 25 years of age. Therefore, the set hypothesis H2 was not confirmed.

Also, comparison of respondents' ratings of different level of education for total service quality has not shown existence of statistically significant difference. Therefore, neither hypothesis H4 could be confirmed.

5. CONCLUSIONS

According to obtained research results gender and income influence perceived service quality, while age and education do not. There is a statistically significant difference between male and female in service quality rating. Service quality is more important to female in hypermarkets they are loyal customers compared to male. There is a statistically significant difference between different income groups in service quality perception. However, the obtained research results do not follow research results on service quality perception on developed retail markets. The highest ratings are not given by members of higher income groups. Obtained results can be interpreted by sample structure consisting mostly of students and pupils (who in most cases do not earn their own money), and income measurement in research is a household income. Namely, households can have more incomes, but the question of household expenses is raised (burdened by loans, investments and the like). Therefore, subject of future researches on income influence on service quality perception should be income in form of disposable part of an income for household expenses.

Perceived service quality has multidimensional character. Consequently, besides total service quality research future studies should be directed towards service quality research exploring dimensions of service quality, its influence on perceived service quality, and relate them with demographic and socio-economic factors.

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ANALYSIS AND ESTIMATION ON KOREA-SAARC PARTNERSHIP SEMINAR

JEL classification: F0, F1, O2, O5

Abstract

SAARC was formed in 1985 with the objective of exploiting “accelerated economic growth, social progress and cultural development in the region” for the welfare of the peoples of South Asia. In 1995, its corresponding RTA (SAPTA) came into force. South Asian Free Trade Agreement (SAFTA) has been ratified and entered into force in mid-2006. As its importance echoes around the world over the time, there has been a growing interest among many countries and organizations to be associated with SAARC as Observers and to engage with SAARC in collaborative endeavours. Especially, Korea, as an observer, has opened “Korea –SAARC Partnership Seminar” in Seoul, Korea every year since 2010. For preparing 6th Seminar agenda to be opened on December this year, the authors analyzed its activity during last 5 years and estimated to draw the concrete strategies for co-prospects mutually. As a result, the authors proposed to conclude “Korea-SAARC FTA” linking Korea’s ODA, KSP and FTA.

Key words: SAARC, SAPTA, SAFTA, ODA, DAC, FTA



1. INTRODUCTION

1.1. Background

As we know well, the ever-growing number of regional trade agreements (RTA)¹ and preferential trade arrangements (TPA)² is a prominent feature of international trade. WTO members participating in these agreements are encouraged to notify the WTO when new agreements are formed. Regional trade agreements (RTAs) have become increasingly prevalent since the early 1990s. As of 7 April 2015, some 612 notifications of RTAs (counting goods, services and accessions separately) had been received by the GATT/WTO. Of these, 406 were in force. These WTO figures correspond to 449 physical RTAs (counting goods, services and accessions together), of which 262 are currently in force.

- What all RTAs in the WTO have in common is that they are reciprocal trade agreements between two or more partners. Information on RTAs notified to the WTO is available in the RTA Database. The WTO also receives notifications from WTO members regarding preferential trade arrangements (PTAs). In the WTO, PTAs are unilateral trade preferences. Information on PTAs notified to the WTO is available in the PTA Database.

The South Asian Association for Regional Cooperation (SAARC), which is based in Kathmandu, Nepal, is an economic and geopolitical organization of eight countries that are primarily located in South Asia or Indian subcontinent. The combined economy of SAARC owing to India is the 3rd largest in the world in the terms of GDP (PPP) after the United States and China and 5th largest in the terms of nominal GDP. SAARC nations comprise 3% of the world's area and contain 21% (around 1.7 billion) of the world's total population and around 9.12% of Global economy as of 2015. India makes up over 70% of the area and population among these eight nations.

During 2005-10, the average GDP growth rate of SAARC stood at an impressive 8.8% p.a., but it slowed to 6.5% in 2011 largely because of economic slowdown in India, which accounts for nearly 80% of SAARC's economy. But driven by a strong expansion in India, coupled with favorable oil prices from the last quarter of 2014 South Asia once again become the fastest-growing region in the world.

The idea of regional, political, and economical cooperation in South Asia

¹ In the WTO, regional trade agreements (RTAs) are defined as reciprocal trade agreements between two or more partners. They include free trade agreements and customs unions. Information on RTAs notified to the WTO is available in the RTA database (<http://rtais.wto.org/UI/PublicMaintainRTAHome.aspx>)

² Preferential trade arrangements (PTAs) in the WTO are unilateral trade preferences. They include Generalized System of Preferences schemes (under which developed countries grant preferential tariffs to imports from developing countries), as well as other non-reciprocal preferential schemes granted a waiver by the General Council. Information on PTAs notified to the WTO is available in the PTA Database (<http://ptadb.wto.org/?lang=1>)

was first raised in 2 May 1980 by Bangladesh President Ziaur Rahman and the first summit was held in Dhaka on 8 December 1985, when the organisation was established by the governments of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. Since then the organization has expanded by accepting one new full member, Afghanistan, and several observer members.

The SAARC policies aim to promote welfare economics, collective self-reliance among the countries of South Asia, and to accelerate socio-cultural development in the region. The SAARC has developed external relations by establishing permanent diplomatic relations with the EU, the UN (as an observer), and other multilateral entities. The official meetings of the leaders of each nation are held annually whilst the foreign ministers meet twice annually. The 18th SAARC Summit was held in Kathmandu from 26–27 November 2014

SAARC was formed in 1985 with the objective of exploiting “accelerated economic growth, social progress and cultural development in the region” for the welfare of the peoples of South Asia. In 1995, its corresponding RTA (SAPTA) came into force. South Asian Free Trade Agreement (SAFTA) has been ratified and entered into force in mid-2006.³

As SAARC, SAPTA and SAFTA’s economic, social and political importance become over the time, there has been a growing interest among many countries and organizations to be associated with SAARC as observers and to engage with SAARC in collaborative endeavours. Especially, Korea, as an observer, has being opened <Korea –SAARC Partnership Seminar> in Seoul, Korea every year since 2010.

1.2. Objective

Under this background, with 6th Seminar around December this year, the authors try to analyze and estimate its activity during last 5 years to draw the concrete strategies for co-prospects in the near future mutually. As a result, we proposed to conclude <Korea-SAARC FTA> linking Korea’s ODA, KSP and FTA.

1.3. Methodology

As this paper is theoretical and political in essence, we search, review and estimate the related materials from SAARC home page (<http://saarc-sec.org>), related paper, and text for SAARC, SAPTA and SAFTA, Korea Institute for International Economic Policy (KIEP), and Ministry of Foreign Affairs of Korea

³ RTAs refer to agreements involving regional partners. Free Trade Agreements (FTAs) refers to agreements that includes the full elimination of tariffs and trade barriers while Preferential Trade Agreements (PTAs) s refer to agreements involving partial tariff elimination. For example, SAPTA is South Asia’s PTA and SAFTA is South Asia’s FTA. (Ki-Kwan Yoon, *Modern International Trade and Commerce*, Gungmedia (Daejeon, Korea), 2015 and *FTA Business Strategy*, Gungmedia (Daejeon, Korea), 2014.

(MOFA) for Korea-SAARC Partnership Seminar.

2. COMPARATIVE ANALYSIS ON SAARC, SAPTA, AND SAFTA

2.1. SAARC

2.1.1. Adopting Charter for establishing SAARC

The Heads of State or Government of originating members of SAARC agreed to establish an organization to be known as SAARC with the following objectives and principles.

Objectives

The objectives of the SAARC shall be a) to promote the welfare of the peoples of SOUTH ASIA and to improve their quality of life; b) to accelerate economic growth, social progress and cultural development in the region and to provide all individuals the opportunity to live in dignity and to realise their full potentials; c) to promote and strengthen collective self-reliance among the countries of SOUTH ASIA; d) to contribute to mutual trust, understanding and appreciation of one another's problems; e) to promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields; f) to strengthen cooperation with other developing countries; g) to strengthen cooperation among themselves in international forums on matters of common interests; and h) to cooperate with international and regional organizations with similar aims and purposes.

Principles

Cooperation within the framework of the SAARC shall be based on respect for the principles of sovereign equality, territorial integrity, political independence, non-interference in the internal affairs of other States and mutual benefit. Such cooperation shall not be a substitute for bilateral and multilateral cooperation but shall complement them and shall not be inconsistent with bilateral and multilateral obligations.

2.1.2. SAARC Summit

The Charter (Article III) provides that the Heads of State or Government “shall meet once a year or more often as and when considered necessary by the Member States”. However, the Summit has generally been convened at an interval of one and half year or so. Summit Declarations provide directives and mandate for regional co-operation.⁴

⁴ First SAARC Summit, Dhaka, 1985, Second SAARC Summit, Bangalore, 1986, Third SAARC Summit, Kathmandu, 1987, Fourth Summit, Islambad, 1988, Fifth SAARC Summit, Male', 1990,

2.1.3. Regional Centers

The SAARC Secretariat is supported by following Regional Centers established in Member States to promote regional cooperation. These Centers are managed by Governing Boards comprising representatives from all the Member States, SAARC Secretary-General and the Ministry of Foreign/External Affairs of the Host Government. The Director of the Centre acts as Member Secretary to the Governing Board which reports to the Programming Committee. < Table 1>

Table 1

Regional Centers by Sector

SAARC Agricultural Centre (SAC), Dhaka
SAARC Meteorological Research Centre (SMRC), Dhaka
SAARC Tuberculosis Centre (STC), Kathmandu
SAARC Documentation Centre (SDC), New Delhi
SAARC Human Resources Development Centre (SHRDC), Islamabad
SAARC Coastal Zone Management Centre (SCZMC), Maldives
SAARC Information Centre (SIC), Nepal
SAARC Energy Centre (SEC), Pakistan
SAARC Disaster Management Centre (SDMC), India
SAARC Forestry Centre (SFC), Bhutan
SAARC Cultural Centre (SCC), Sri Lanka

Source: [http://saarc-sec.org/Regional-Centers/12\(as of May 10, 2015\)](http://saarc-sec.org/Regional-Centers/12(as%20of%20May%2010,%202015))

2.2. SAPTA

In December 1991, the Sixth Summit held in Colombo approved the establishment of an Inter-governmental Group (IGG) to formulate an agreement to establish a SAARC Preferential Trading Arrangement (SAPTA) by 1997. Given the consensus within SAARC, the Agreement on SAPTA was signed on 11 April 1993 and entered into force on 7 December 1995 well in advance of the

Sixth SAARC Summit, Colombo, 1991, Seventh SAARC Summit, Dhaka, 1993, Eighth SAARC Summit, New Delhi 1995, Ninth SAARC Summit, Male', 1997, Tenth SAARC Summit, Colombo, 1998, Eleventh SAARC Summit, Kathmandu, 2002, Twelfth SAARC Summit, Islamabad, 2004, Thirteenth SAARC Summit, Dhaka, 2005, Fourteenth SAARC Summit, New Delhi, 2007, Fifteenth SAARC Summit, Colombo, 2008, Sixteenth SAARC Summit, Thimphu, 2010, Seventeenth SAARC Summit, Addu City, 2011 and Eighteenth SAARC Summit, Kathmandu, 2014

date stipulated by the Colombo Summit. The Agreement reflected the desire of the Member States to promote and sustain mutual trade and economic cooperation within the SAARC region through the exchange of concessions.

The basic principles underlying SAPTA are:

1. overall reciprocity and mutuality of advantages so as to benefit equitably all Contracting States, taking into account their respective level of economic and industrial development, the pattern of their external trade, and trade and tariff policies and systems;
2. negotiation of tariff reform step by step, improved and extended in successive stages through periodic reviews;
3. recognition of the special needs of the Least Developed Contracting States and agreement on concrete preferential measures in their favour; and
4. inclusion of all products, manufactures and commodities in their raw, semi-processed and processed forms.⁵

Four rounds of trade negotiations have been concluded under SAPTA covering over 5000 commodities. Each Round contributed to an incremental trend in the product coverage and the deepening of tariff concessions over previous Rounds.

2.3. SAFTA

2.3.1. Objectives

The Objectives of this Agreement are to promote and enhance mutual trade and economic cooperation among Contracting States by, inter-alia:

- a) eliminating barriers to trade in, and facilitating the cross-border movement of goods between the territories of the Contracting States;
- b) promoting conditions of fair competition in the free trade area, and ensuring equitable benefits to all Contracting States, taking into account their respective levels and pattern of economic development;
- c) creating effective mechanism for the implementation and application of this Agreement, for its joint administration and for the resolution of disputes; and
- d) establishing a framework for further regional cooperation to expand and enhance the mutual benefits of this Agreement.

2.3.2. Principles

⁵ AGREEMENT ON SAARC PREFERENTIAL TRADING ARRANGEMENT (SAPTA), Article – 3(Principles)

SAFTA shall be governed in accordance with the following principles:

a) SAFTA will be governed by the provisions of this Agreement and also by the rules, regulations, decisions, understandings and protocols to be agreed upon within its framework by the Contracting States;

b) The Contracting States affirm their existing rights and obligations with respect to each other under Marrakesh Agreement Establishing the World Trade Organization and other Treaties/Agreements to which such Contracting States are signatories;

c) SAFTA shall be based and applied on the principles of overall reciprocity and mutuality of advantages in such a way as to benefit equitably all Contracting States, taking into account their respective levels of economic and industrial development, the pattern of their external trade and tariff policies and systems;

d) SAFTA shall involve the free movement of goods, between countries through, inter alia, the elimination of tariffs, para tariffs and non-tariff restrictions on the movement of goods, and any other equivalent measures;

e) SAFTA shall entail adoption of trade facilitation and other measures, and the progressive harmonization of legislations by the Contracting States in the relevant areas; and

f) The special needs of the Least Developed Contracting States shall be clearly recognized by adopting concrete preferential measures in their favour on a non-reciprocal basis.

2.3.3. Instruments

The SAFTA Agreement has been implementing through the following instruments:

1. Trade Liberalization Program
2. Rules of Origin
3. Institutional Arrangements
4. Consultations and Dispute Settlement Procedures
5. Safeguard Measures
6. Any other instrument that may be agreed upon

2.3.4. National Treatment

Each Contracting State shall accord national treatment to the products of other Contracting States in accordance with the provisions of Article III of GATT

1994.⁶

2.3.5. Components

SAFTA may, inter-alia, consist of arrangements relating to:

- a) tariffs;
- b) para-tariffs;
- c) non-tariff measures;
- d) direct trade measures

2.3.6. Trade Liberalization Program

Contracting States agree to the following schedule of tariff reductions:

The tariff reduction by the Non-Least Developed Contracting States from existing tariff rates to 20% shall be done within a time frame of 2 years, from the date of coming into force of the Agreement. Contracting States are encouraged to adopt reductions in equal annual installments. If actual tariff rates after the coming into force of the Agreement are below 20%, there shall be an annual reduction on a Margin of Preference basis of 10% on actual tariff rates for each of the two years.

The tariff reduction by the Least Developed Contracting States from existing tariff rates will be to 30% within the time frame of 2 years from the date of coming into force of the Agreement. If actual tariff rates on the date of coming into force of the Agreement are below 30%, there will be an annual reduction on a Margin of Preference basis of 5 % on actual tariff rates for each of the two years.

The subsequent tariff reduction by Non-Least Developed Contracting States from 20% or below to 0-5% shall be done within a second time frame of 5 years, beginning from the third year from the date of coming into force of the Agreement. However, the period of subsequent tariff reduction by Sri Lanka shall be six years. Contracting States are encouraged to adopt reductions in equal annual installments, but not less than 15% annually.

The subsequent tariff reduction by the Least Developed Contracting States from 30% or below to 0-5% shall be done within a second time frame of 8 years beginning from the third year from the date of coming into force of the Agreement. The Least Developed Contracting States are encouraged to adopt

⁶ National Treatment Principle of giving others means the same treatment as one's own nationals. GATT Article 3 requires that imports be treated no less favourably than the same or similar domestically-produced goods once they have passed customs. GATS Article 17 and TRIPS Article 3 also deal with national treatment for services and intellectual property protection.

reductions in equal annual installments, not less than 10% annually.

The above schedules of tariff reductions will not prevent Contracting States from immediately reducing their tariffs to 0-5% or from following an accelerated schedule of tariff reduction.

Contracting States may not apply the Trade Liberalization Program as in paragraph 1 above, to the tariff lines included in the Sensitive Lists which shall be negotiated by the Contracting States (for LDCs and Non -LDCs) and incorporated in this Agreement as an integral part. The number of products in the Sensitive Lists shall be subject to maximum ceiling to be mutually agreed among the Contracting States with flexibility to Least Developed Contracting States to seek derogation in respect of the products of their export interest.

The Sensitive List shall be reviewed after every four years or earlier as may be decided by SAFTA Ministerial Council (SMC), established under Article 10, with a view to reducing the number of items in the Sensitive List.

The Contracting States shall notify the SAARC Secretariat all non-tariff and para-tariff measures to their trade on an annual basis. The notified measures shall be reviewed by the Committee of Experts, established under Article 10, in its regular meetings to examine their compatibility with relevant WTO provisions. The Committee of Experts shall recommend the elimination or implementation of the measure in the least trade restrictive manner in order to facilitate intra SAARC trade.

Contracting Parties shall eliminate all quantitative restrictions, except otherwise permitted under GATT 1994, in respect of products included in the Trade Liberalization Program.

Notwithstanding the provisions contained in paragraph 1 of this Article, the Non-Least Developed Contracting States shall reduce their tariff to 0-5% for the products of Least Developed Contracting States within a timeframe of three years beginning from the date of coming into force of the Agreement.

2.3.7. Safeguard Measures

If any product, which is the subject of a concession under this Agreement, is imported into the territory of a Contracting State in such a manner or in such quantities as to cause, or threaten to cause, serious injury to producers of like or directly competitive products in the importing Contracting State, the importing Contracting State may, pursuant to an investigation by the competent authorities of that Contracting State conducted in accordance with the provisions set out in this Article, suspend temporarily the concessions granted under the provisions of this Agreement. The examination of the impact on the domestic industry concerned shall include an evaluation of all other relevant economic factors and indices having a bearing on the state of the domestic industry of the

product and a causal relationship must be clearly established between "serious injury" and imports from within the SAARC region, to the exclusion of all such other factors.

Such suspension shall only be for such time and to the extent as may be necessary to prevent or remedy such injury and in no case, will such suspension be for duration of more than 3 years.

No safeguard measure shall be applied again by a Contracting State to the import of a product which has been subject to such a measure during the period of implementation of Trade Liberalization Programme by the Contracting States, for a period of time equal to that during which such measure had been previously applied, provided that the period of non-application is at least two years.

All investigation procedures for resorting to safeguard measures under this Article shall be consistent with Article XIX of GATT 1994 and WTO Agreement on Safeguards

Safeguard action under this Article shall be non-discriminatory and applicable to the product imported from all other Contracting States subject to the provisions of paragraph 8 of this Article.

When safeguard provisions are used in accordance with this Article, the Contracting State invoking such measures shall immediately notify the exporting Contracting State(s) and the Committee of Experts.

In critical circumstances where delay would cause damage which it would be difficult to repair, a Contracting State may take a provisional safeguard measure pursuant to a preliminary determination that there is clear evidence that increased imports have caused or are threatening to cause serious injury. The duration of the provisional measure shall not exceed 200 days, during this period the pertinent requirements of this Article shall be met.

Notwithstanding any of the provisions of this Article, safeguard measures under this article shall not be applied against a product originating in a Least Developed Contracting State as long as its share of imports of the product concerned in the importing Contracting State does not exceed 5 per cent, provided Least Developed Contracting States with less than 5% import share collectively account for not more than 15% of total imports of the product concerned.

2.3.8. Rules of Origin

Rules of Origin shall be negotiated by the Contracting States and incorporated in this Agreement as an integral part.

2.3.9. Intra-Regional Trade

At present, South Asia combines a low level of regional integration—especially among its largest members—and the presence of relatively high trade barriers. The proportion of trade originating in the region has increased in the last decade but still lags behind ASEAN levels. While Bangladesh, India and Pakistan sustain 5 percent of their exports and 2½ percent of their imports with regional partners, the At present, South Asia combines a low level of regional integration—especially among its largest members—and the presence of relatively high trade barriers.

The proportion of trade originating in the region has increased in the last decade but still lags behind ASEAN levels. While Bangladesh, India and Pakistan sustain 5 percent of their exports and 2½ percent of their imports with regional partners, the smallest members (Bhutan, Nepal, Maldives, and Sri Lanka) exhibit a higher reliance on local trade relations averaging 20 percent and 9 percent for imports and Exports, respectively.⁸ In terms of trade barriers the region has undertaken an overall liberalization program with India reducing its average tariff level by around 20 percentage points during the last 8 years. However, there is significant room for further liberalization given that all seven countries still impose higher tariff barriers than ASEAN and Plus3⁷.

SAPTA advanced the region's commitment to deeper integration with limited success. The implementation of the agreement was characterized by sequential rounds of negotiations in which trade preferences were granted on a product-by-product basis. When SAPTA entered into force in December 1995, it imposed rules of origin that were too restrictive for most of its members and were subsequently lowered in 1999, and trade facilitation measures were implemented on a limited scale. Only least developed countries (LDCs) countries obtained significant trade preferences while most of the trade among the largest countries was still subject to considerable trade barriers (Baysan, and others, 2006; SAARC Secretariat, 2006c).

SAFTA builds on the provisions of SAPTA. SAFTA extends the scope of SAPTA to include trade facilitation elements and switches the tariff liberalization process from a positive to a negative list approach. A special consideration in SAFTA is the compensation for revenue losses for small countries in the event of tariff reductions (Baunsgaard and Keen, 2005). For these countries SAFTA proposes that “until alternative domestic arrangements are formulated to address this situation, the Contracting States agree to establish an appropriate mechanism to compensate the Least Developed Contracting States...” (SAARC Secretariat, 2006b).

SAFTA is expected to increase regional trade (trade creation) but may do so at the expense of trade flows from more efficient non regional suppliers (trade diversion). Baysan and others (2006) argue that it is unlikely that the most efficient suppliers of the member countries are within the region. Based on that

⁷ Plus 3 is used to denote the group consisting of China (including Hong Kong), Japan and Korea

and on the restrictiveness of SAFTA's sensitive lists and rules of origin, it concludes the economic merits of SAFTA are "quite weak." Using the static general equilibrium methodology, Bandara and Yu (2003) find that the full elimination of trade barriers between South Asian countries would increase the welfare level of India (by 0.2 percent) and Sri Lanka (by 0.03), but decrease the welfare level of Bangladesh (by 0.1 percent).⁹ Extending the agreement to ASEAN would decrease welfare of all South Asian countries, but would increase it for an extension to NAFTA or EU (except for the rest of South Asia, which loses if it is extended toward EU). Srinivasan (1994) also forecasts the effects of SAFTA. It uses total (exports plus imports) bilateral trade flows as the dependent variable. Given data restrictions, the analysis is limited to Bangladesh, India, Nepal, Pakistan, and Sri Lanka. It concludes that Bangladesh and Nepal would gain the most from the full elimination of tariffs among South Asian members. India, Pakistan, and Sri Lanka would have only marginal benefits but would enjoy larger gains if there were a liberalization agreement with the European Economic Community.⁸

3. ESTIMATION ON KOREA-SAARC FORUM

3.1. Cooperation with Observers

Over the years, there has been a growing interest among many countries and organizations to be associated with SAARC as Observers and to engage with SAARC in collaborative endeavours. Since the Thirteenth SAARC Summit (Dhaka, 12-13 November 2005), the requests by a number of countries and one intergovernmental organization to be associated with SAARC as Observers⁹ was welcomed by the Heads of State or Government of SAARC.

Since the Fourteenth SAARC Summit (New Delhi, 3-4 April 2007), Observers have been invited to participate in the inaugural and closing Sessions of SAARC Summits. SAARC's engagement with its Observers is based on the Guidelines for Cooperation with Observers adopted by the Fifteenth SAARC Summit (Colombo, 2-3 August 2008). The Fifteenth SAARC Summit also decided to impose a moratorium on the admission of new Observers.

With the admission of Observers to SAARC, a number of proposals have been made by some Observers to engage in mutually beneficial cooperation and some of the proposals are currently under implementation.

3.2. Japan-SAARC Symposium

⁸ Jose Daniel Rodríguez-Delgado, "SAFTA: Living in a World of Regional Trade Agreements", IMF Working Paper, WP/07/23, 2007

⁹ Today, there are nine Observers to SAARC as follows: Australia, China, European Union, Iran, Japan, Republic of Korea, Mauritius, Myanmar and USA

All 9 observers including Republic of Korea recognized the near future importance on SAARC from 2010 when SAARC was established and participated as observers.

South Asian countries are under immense social and political compulsions to secure reliable, sustainable and affordable energy supply to meet the fast growing demand for commercial energy to fulfill aspirations of the people and economic growth of the region. In order to address social equity and development objectives, the Governments in the region endeavour to provide electricity to all, but the fact is that the gap between supply and demand is widening. It has been estimated that primary commercial energy demand of South Asia will increase from primary commercial energy supply of 655 million tonnes of oil equivalent in 2011 to more than 2,200 million tonnes of oil equivalent by 2030. The Intra- and Inter- regional energy trade and energy cooperation is one of the key options to fill the huge supply and demand gap.

Much needed energy cooperation in the SAARC region got formal recognition in 2004 through the Islamabad Declaration of the 12th SAARC Summit when its leaders directed to conduct a study by Working Group of Energy on the concept of a South Asian Energy Ring and constituted Ministerial level Energy Forum. The Working Group in its first meeting proposed establishment of a SAARC Energy Centre to realize the concept of the regional energy ring. This proposal was supported by the Energy Ministers in their first meeting in October 2005. The 13th SAARC Summit, held at Dhaka in November 2005, approved the establishment of SAARC Energy Centre to serve as the focal point for increasing energy cooperation. The Centre is not only driving intra-regional energy cooperation within South Asia but also serving as a platform for international and inter-regional energy cooperation with neighbouring regional blocks in West Asia, Central Asia, East Asia and South-East Asia.

In order to contribute towards materializing the concept of energy ring the SAARC Energy Centre has developed its Strategic and Operational Plan. The Plan identified five thematic areas of programme activities focusing on: (i) Energy Trade, (ii) Technology Transfer and sharing best practices, (iii) Energy and Environment, (iv) Energy Efficiency and Fuel Substitution, and (v) Rural Energy Accessibility.

According to the great concerns and needs of SAARC on energy, Japan-SAARC Symposium was organized by Bangladesh University of Engineering and Technology (BUET) in collaboration with the SAARC Secretariat, under the Japan-SAARC Special Fund. This was a follow up of the previous three symposia. The 1st Japan-SAARC Symposium was held in Dhaka in 2006, which focused on the possible Japan-SAARC cooperation in various fields including disaster prevention, improvement of regional infrastructure, youth exchange and capacity-building. The 2nd symposium titled 'Energy and Connectivity' was held in 2008 in Islamabad, Pakistan. The 3rd one titled 'Promoting Energy Cooperation in South Asia' was held in 2010 in Delhi, India, Each of the

symposia came up with a set of recommendations for the consideration of the governments in the region. The 4th symposium focused on Regional cooperation in Energy Efficiency and Renewable Energy¹⁰. The speakers emphasized on the importance of knowledge sharing, regional cooperation, financial and regulatory reforms for successful implementation of energy efficiency and renewable energy projects. The discussions were followed by draft recommendations to be submitted to the respective governments for implementation.

The 6th Japan-SAARC Energy Symposium was organized by the Ministry of Foreign Affairs, Government of Japan in partnership with the Nepal Electricity Authority (NEA) on March 6-7, 2013 in SoalteeCrownePlazza, Kathmandu, Nepal. The theme of the symposium was “Commercially Viable Energy Networking in the SAARC Region, with Emphasis on Energy Grid Structure”. The symposium was inaugurated by Mr. Leela Mani Paudyal, Chief Secretary Government of Nepal and Chairman NEA. In addition to the participants from Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka, the symposium was attended by the SAARC Secretariat, SAARC Energy Centre, Asian Development Bank, USAID, Ambassadors and diplomats from the SAARC Member Countries and other organizations based in Kathmandu. Presentations were made by the experts from the SAARC Member countries, SAARC Energy Centre, the ADB, USAID and SN Power Holdings Singapore Pte. Ltd. during the four sessions held over the period of two days.</p>

The aim of this symposium was to discuss the possible cooperation among SAARC member countries and also between Japan and SAARC member countries, with focus on subjects of common interest of energy of energy and subsequently recommend future activities. Relevant organization in India, Pakistan, Bangladesh and Sri Lanka have hosted previous round of this symposium.

The benefits of regional resource development and grid integration for electricity trade to enhance reliability, security and affordability of supply to the end-users was clearly brought out during the various deliberations in the symposium. The symposium acknowledged the contribution of the Government of Japan and requested them to continue with the Japan-SAARC Energy Symposia

¹⁰ The 4th Japan-SAARC Symposium on Regional Cooperation in Energy Efficiency and Renewable Energy organized by Center for Energy Studies (CES) was held during 30-31 March 2011, at Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh. Brigadier General (Rtd.) Mohammad Enamul Haque, MP, Honble State Minister of the Ministry of Power, Energy and Mineral Resources, Government of the People's Republic of Bangladesh, graced the opening ceremony as the Chief Guest. On the concluding day of the program, Dr. Dipu Moni, MP Hob'ble Minister, Ministry of Foreign Affairs, Government of the People's Republic of Bangladesh graced the occasion as Chief Guest, Mr. Takanori Uehara, Charge d' Affairs, Embassy of Japan was present as the Special Guest. Prof. Dr. S. M. Nazrul Islam, Vice-Chancellor, was the Chief Patron of the program and presided over the ceremonies. Prof. Dr. Aminul Hoque, Chairman of the organizing committee also addressed the audience. About fifty foreign and local delegates participated in the program to share their valuable knowledge and experience on the related subjects.

initiative for enhanced regional energy cooperation in South Asia. Ministry of Foreign Affairs, Government of Japan in consultation with the SAARC Energy Centre may plan and implement the future Japan-SAARC Energy Symposia in collaboration with relevant local institution of the member countries.

On March 10, 2015 Japan opened 8th Japan-SAARC Energy symposium to enhance co-operation among the SAARC countries to address their energy problems. It has been said that The Japan-SAARC energy symposium had played a meaningful role in setting the direction for co-operation among the regional countries in energy sector.

This event has been every year organized by Japan Embassy in collaboration with the SAARC Energy Centre (SEC) and the National University of Sciences and Technology (NUST). The symposium had been tasked with the important role of producing an outcome document having medium-term vision for energy connectivity in the SAARC region. The document would be distributed among high-level members of each SAARC member state through respective Japanese embassies.

Japan has been playing very proactively for many years in advancing co-operation with the SAARC member states in the power sector to minimize their challenges. Some countries had surplus power generation capacity, while others suffered shortage. "Similarly, some countries face severe power transmission and distribution losses, while others need environment-friendly energy sources and some nations need to implement institutional reforms in power sector".

Japan was committed to offer tailor-made assistance to appropriately respond to the needs of each member state. On the institutional side, Japan supported Pakistan's efforts to reform its power sector. Japan was promoting co-operation with India and Bangladesh for the construction of high efficiency coal-fired power plants using Japanese technology, adding his country was providing assistance to Nepal for the construction of a hydro-power plant. Sri Lanka and Bhutan are being provided assistance for development of transmission and distribution grid whereas Japan is also extending co-operation to Afghanistan for solar power generation.

JICA and other Japanese implementing agencies would continue to engage with individual projects to strengthen energy connectivity within SAARC, referring to the "Medium-term Vision" to be completed at this symposium. In future, Japan hopes that region-wide mechanisms for solving common challenges will be put into place including a scheme to transmit power from an energy-surplus country to an energy-deficient country. It is said that Japan will extend co-operation from a new point of view that Japan connects 'dots' of assistance that has been extended in the bilateral context to draw 'lines' which can eventually be linked to create a 'face' of region-wide co-operation.

There has never been a more right time than today to strengthen regional co-operation among the SAARC member states. Last the 18th SAARC Summit was convened for the first time in three years, on the occasion the Kathmandu Declaration was adopted. Also signed at this summit meeting was the SAARC Framework

Agreement for Energy Co-operation, which was proposed at the second and third SAARC Energy Symposia. This is a major step forward as it laid the foundation to advance energy co-operation in the SAARC region. Japan believes that each SAARC state now needs to accelerate the development of respective supporting mechanism.

The symposium was attended by energy policy experts, professionals and academia from Japan and all SAARC member states. The symposium aims at complementing the efforts of individual SAARC member states in terms of energy self-sufficiency by wrapping up the seven Japan-SAARC Energy Symposiums in the past and making consensus on recommendations for Medium-term Vision for Energy Connectivity in the SAARC region. Recommendations to be finalized will be shared with all the SAARC member states for their consideration.¹¹

3.3. Partnership Seminar Korea-SAARC

As 1st project, Korea decided to cooperate climate exchange, public administration, anti-terror field mainly with SAARC from 2011 to 2013. These projects consist of 6 programs which invite 2 officers per one country and total 16 persons.

Korea has opened “Korea-SAARC Partnership Seminar” on SAARC’s concerns agreed with SAARC since 2011 and has discussed a variety of cooperative plans between Korea and SAARC through inviting SAARC secretariat and SAARC members’ concerned high level officers

- 1st seminar was opened in SAARC secretariat (Kathmandu) on November 11, 2010 and discussed Korea-SAARC exchange promotion, economic cooperation feasibility, and cooperation plans with SAARC members etc. From the 2nd Seminar, South Korea is regularly hosting this seminar in Seoul since 2011.

- In 2nd seminar (December 14, 2011), Korea invited SAARC secretariat executive, India, Pakistan, Afghanistan, Sri Lanka, Bangladesh, Nepal, Bhutan, and Maldives representative. They discussed a development situation and future of SAARC and the concrete plans for expanding Korea-SAARC Cooperation such as social and economic development, development cooperation, environment and human security etc. The seminar had a brainstorming opportunity for drawing some plans to deepen multilateral cooperation through the SAARC together with regional and bilateral cooperation between Korea and SAARC.

- 1st and 2nd seminar was organized by Ministry of Foreign Affairs (MOFA) of Korea. Korea Institute for International Economy Policy (KIEP) has been organizing from 3rd seminar up to now. 3rd seminar (2012) discussed intensively the infrastructure building issue for strengthening intra-SAARC connective networks and Korea’s cooperation plan for this project and furthermore promotion plan to raise up Korea-SAARC development cooperation effectiveness.

¹¹ Business Recorder Reporter(March 11, 2015)

- 4th seminar (2013) titled “Energy Sector in SAARC and the Role of Korea”, discussed energy cooperation field which is considered as the future promising cooperation field in SAARC region and was already discussed in Japan-SAARC Forum in 2012. The Asia Development Bank (ADB) experts was especially invited in the seminar.

- 5th seminar (2014) titled “New Cooperation for the Next Decade”, dealt with new cooperative project excavation as a key seminar issue. Although Korea is acting as an observer of SAARC since 2006, it is high time for South Korea to prepare new decade’s collaborative plan for mutual prosperity by estimating last decade’s experience with SAARC.

- What theme will 6th seminar (2015) deal?

-

ROK-SAARC Partnership Seminar

Title	Topic/Theme	Year	Venue
Fifth ROK-SAARC Partnership Seminar	“New cooperation for the next decade”	December 08, 2014	Seoul, South Korea
Fourth ROK-SAARC Partnership Seminar	“Energy cooperation within SAARC and ways to promote the ROK-SAARC cooperation”	September 27, 2013	Seoul, South Korea
Third ROK-SAARC Partnership Seminar	“Strengthening regional connectivity in SAARC and Korea-South Asia development cooperation”	November 15, 2012	Seoul, South Korea
Second ROK-SAARC Partnership Seminar	Finding specific ways for the ROK and SAARC to work more closely together in the fields of socio-economic development.	December 14, 2011	Seoul, South Korea
First ROK-SAARC Partnership Seminar	Exchange of information and seek out areas of substantive cooperation with the ROK and SAARC.	November 2010	Nepal

Source: MOFA and KIEP

4. NEW PARADIGM ON KOREA-SAARC PARTNERSHIP

4.1. SAARC's Concerned Field and Concrete Needs

It is observed that SAARC shows interest in agriculture and rural, biotechnology, culture, economy and trade, education, energy, environment, finance, funding mechanism, infrastructure, communication, media, poverty alleviation, science and technology. The more concrete needs are as follows.

Rural Agriculture: SAARC veterinary officer, Meeting of SAARC Agriculture, Food Ministers, Technical Committee on Agriculture and Rural Development.

Culture: SAARC Agenda for Culture.

Economy and Trade: Economy and Trade Meeting-held and announced, Status Note on Eco&Fin Cooperation as on 22 January 2015, SAFTA TLP Note, Cooperation and Standard, SAARC agreement on Trade in Service, Cooperation in Avoidance of Double Taxation and Customs Cooperation etc.

Education: Establishment of South Asian University, SAARC Chair-Fellowship and Scholarship Scheme, Open and Distance Learning, Committee of Heads of University -Grants Community-Equivalent Bodies, Culture, and Education etc.

Energy: 4th Meeting of SAARC Energy Ministers

Environment: COP Meeting and South Asia Environment Outlook (SAEO) 2009.

Finance: Financial Cooperation, SAARC Finance, and Best Prices and Key Economic Indicators.

Poverty Alleviation: Regional Poverty Pros

4.2. Korea's Current Situation on Trade and Investment with SAARC

Korea exported 12,654 billion (2011), 11,922 billion (2012), and 11,376 billion (2013) to India respectively and main exports were auto parts, iron and steel and synthetic resins etc. Korea imported 7,894 billion (2011), 6,924 billion (2012), and 6,180 billion respectively and main imports was petroleum products, vegetable materials, alloy iron, pig iron and crap iron etc.

But Korea's trade volume with the remaining 7 countries records extremely small. <Table 2>

Table 2

Korea's trade volume with SAARC

Unit: thousand US

		Afghanistan	Bangladesh	Bhutan	Maldives	Nepal	Pakistan	Sri Lanka
2011	EX	119,912	16,28	15,838	5,069	37,842	815	344
	IM	117	244	13	190	2,237	737	82
2012	EX	143,167	1,459	7,387	3,915	19,045	847	320
	IM	48	295	7	284	1,738	776	72
2013	EX	63,840	1,427	3,270	3,674	17,013	819	299
	IM	142	332	382	380	1,537	522	85

4.3. Korea's ODA Policy

Official development assistance (ODA) refers to the flow of financial resources from the central and/or local governments of donor countries and multilateral agencies to developing countries. ODA is intended to promote the economic development and to improve the quality of life in developing countries. In other words, ODA can be described with the following three key questions.¹²

By whom	Central and local governments of a donor country or other public, international agencies
To whom?	<i>A developing country in the list of ODA recipients, provided by the OECD-Development Assistance Committee (DAC)</i>
How?	Providing grants* or concessional loans** for the recipient country in order to promote its economic development and welfare improvement

A grant refers to a “free” form of assistance in cash, goods, and/or services provided without stipulations of repayment or redemption. Certain types of costs or expenses involved in implementing given projects of assistance may fall into the category of grants. A loan refers to funding provided either in cash or goods with stipulations of liabilities for repayment. Concessional loans made as part of ODA are more favorable to the recipient country than other commercially available loans in terms of interest rates, maturity, and grace periods. In order to count as ODA, a concessional loan must have a grant element of 25% or greater.

As a DAC/OECD, Korea's Country Partnership Strategy(CPS)¹³ involves Bangladesh, Nepal, Pakistan, Sri Lanka In accordance with the Framework Act (Article 8.2.3) and the Strategic Plan, the Korean government formulated integrative Country Partnership Strategies (CPS) for each priority partner country to maximize synergy effects and to improve ODA effectiveness through strategic concentration. In 2010, the Korean government selected 26

¹³ CPS means 26 developing countries which support Official Development Assistance (ODA) intensively as a DAC/OECD and this is grant.

priority partner countries out of 130 partner countries based on their income, political situation, diplomatic relationship with Korea, and economic potential. Priority partner countries are composed of 11 Asian countries, 8 African countries, 4 in Central and South American countries, 2 Middle East and CIS countries and 1 country in Oceania. Then, the PMO, MOFA, and MOSF had taken part in formulation of the CPS since 2011 and completed it in 2013.

The CPS includes ODA volume, focus sectors, and implementation plans for each partner country based on Korea's ODA strategy and the national development plans of the partner country. The implementation of country specific ODA will be successful if the CPS includes comprehensive understanding on the partner country's diplomatic strategies and needs. The CPS is revised every three to five years for a better alignment with the national development plans of partner countries. If required, CPS can be modified within three years through the CIDC's deliberation and decision. The CPS enables ODA agencies to implement policies coherently and to improve project performances reflecting the needs of partner countries.¹⁴

Focus Sectors of 26 Priority Partner Countries are as follows.

Asia (11 countries)	Nepal	Vocational Training / Health and Medical Care / Agriculture / Electricity
	East-Timor	Education Training / Health and Medical Care / Social Infrastructure
	Laos	Water Resources and Electricity / Human Resource Development / Health and Medical Care
	Mongolia	ICT-based Public Administration / Urban Development / Agriculture Development
	Bangladesh	Water Resources and Electricity / Health / Education / Public Administration
	Vietnam	Environment and Green Growth / Vocational Training / Transportation Infrastructure
	Sri Lanka	Basic Infrastructure / Human Resource Development / Public Administration
	Indonesia	Public Administration / Economic Infrastructure / Environment and Resource Management
	Cambodia	Rural and Agriculture Development / Transportation and Green Energy / Human Resource Development / Health and Medical Care
	Pakistan	Industrial Energy / Education / Health and Medical Care
	Philippines	Transportation Infrastructure / Agriculture

¹⁴ Countries with the CPS : 2011(3 countries : Vietnam, Ghana, Solomon island), 2012(11 countries : Bolivia, Sri Lanka, Indonesia, Mongolia, Azerbaijan, Ethiopia, DR Congo, Cambodia, Bangladesh, the Philippines, Uzbekistan), and 2013(12 countries: Lao, Mozambique, Peru, Cameroon, Colombia, Nepal, East Timor, Rwanda, Uganda, Paraguay, Pakistan)

4.4. Korea's EDCF aid

Korea has supported Economic Development Cooperation Fund (EDCF) for Afghanistan (2011 and 2013), Bangladesh (2009, 2010, 2011, and 2014), Nepal (1996 and 2008), Pakistan (1995, 1997, 2007, 2011, and 2012) and Sri Lanka (2009)

4.5. New Partnership Paradigm Linking <ODA(EDCF)-KSP-FTA>

Korea implements ODA project with Bangladesh, Nepal, Sri Lanka and Pakistan and also EDCF project with Afghanistan Bangladesh, Nepal, Pakistan and Sri Lanka. Also Korea promotes KSP project with 40 and more developing countries.

<Korea-India CEPA> puts in force but both countries need to upgrade it. Also 8 countries including India implement SAFTA and Korea searches industry sector to cooperate with SAARC since Korea participated as an observer of SAARC in 2006. Furthermore, OECD/DAC requires to increase ODA's effectiveness to DAC members and Korea, as a DAC member, Korea obligates to do now.

As Park's government promotes to conclude FTA with main countries all over the world, FTAs with 49 countries (11 FTAs) put in effect as of May 30, 2015 and we hope that 2 FTAs with China and Vietnam will be done around end of this year. Also we expect that the remaining some FTAs on the way will be finalized until February 25, 2017 which the incumbent government expire.

We hope that the following conditions will be adopted in year's Seminar (6th Korea-SAARC Partnership Seminar).

First, Korea should invite the representatives to have the right of decision in all member countries differently from last seminars.

Second, Korea should organize the permanent committee to discuss concerned sectors by country.

Third, Korea should make efficient use of ongoing ODA, EDCF, and KSP project.

Fourth, Korea should approach the seminar in view of political and humanistic level rather than economic level.

Lastly, Korea should enforce real and deep cooperation relationship with India which plays a role as a leader in SAARC.

5. CONCLUSION

5.1. Summary

The political and economic potential of South Asia has been growing over the years. Expectations for South Asia's potential are becoming even greater as South Asian countries are strengthening cooperation through SAARC, the one and only regional cooperation body in the region. Realizing the importance of SAARC, South Korea is acting as an observer since 2006. Ever since it was admitted in SAARC as an observer in 2006, Korea has vastly improved its economic and political engagement with the SAARC countries. Since 2011, South Korea has regularly been hosting Korea-SAARC Partnership Seminar in Seoul. The 6th Korea-SAARC Partnership Seminar will be held this year (2016). This seminar is playing a vital role to engage policy makers and researchers in an in-depth discussion on ways to enhance cooperation between Korea and South Asia.

Through the Official Development Assistance (ODA) program, South Korea is currently contributing to promote the economic development and to improve the quality of life of four SAARC countries such as Bangladesh, Nepal, Pakistan, and Sri Lanka. Korea has also supported Economic Development Cooperation Fund (EDCF) for several countries of the region. In 2004, the Republic of Korea launched the Knowledge Sharing Program (KSP) which is considered a new paradigm of development cooperation with partner countries. Among the SAARC Countries, Bangladesh, Pakistan, and Sri Lanka are the partner countries of South Korea under the KSP. To foster the trade relation with India, Korea has signed the Comprehensive Economic Partnership Agreement (CEPA) which came into force on January 1, 2010. The authors believe that "Korea-SAARC FTA" is now the demand of time which will set the future trajectory of Korea-SAARC cooperation. The policy makers of both Korea and SAARC countries should come forward to sign the agreement and to ensure a better socio-economic relations among the countries.

5.2. Policy Suggestion

Along with Korea-SAARC Partnership Seminar, the authors' proposition is to establish "Korea-SAARC Campus Forum". This campus forum would be composed of academicians and students who will discuss the important issues, support and propel the activity of Korea SAARC Partnership Seminar. In addition, "SAARC Study Center" as a full-fledged research institute could be established under any university of South Korea. This study center might continue research activities in collaboration with KIEP.

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TRANSPORT

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AIR TRAVEL BANKS: A VIABLE PUBLIC-PRIVATE PARTNERSHIP APPROACH TO AIRPORT ROUTE DEVELOPMENT?

JEL classification: L93, O18

Abstract

Financial incentives to develop air services at smaller airports are scrutinized by regulatory authorities. This is especially true within the European Union with its new guidelines on state aid and consequent rulings on the repayment of subsidies provided by airports to airlines that violate state aid rules. Private funds used to develop air services are not state aid. For this reason, air travel banks (ATBs) might be a promising route development tool for smaller airports. This concept builds on the idea of binding monetary pledges from air transport users that constitute a revenue guarantee for new or expanded air services. This paper describes the ATB public-private partnership approach and offers advice to airport authorities and regional development agencies considering this approach to airport route development without public financing.

Key words: airport route development, air travel bank, public-private partnership

1. INTRODUCTION

Many airports offer package deals containing financial and non-financial incentives to attract new air services. Such incentives are offered to airlines by publicly owned as well as by privately owned airports. Incentives may be offered for the initial start-up of scheduled services at a smaller airport, but also for adding new routes, additional frequencies or operations with larger aircraft. A common route development objective at smaller airports is access to a hub

airport, i.e. an airport used by an airline as a transfer point for air travel within a hub-and-spoke network. Hub access offers the communities in the surroundings of a smaller airport not only a point-to-point service into the hub airport, but also connecting services to various destinations beyond the hub.

A common source for monetary incentives is public funding, leading to regulatory issues such as a potential violation of state aid rules. Financial incentives to develop scheduled air services could also include a guaranteed ticket purchase program which is basically a financial commitment of a business community to support an air service initiative for a limited time period. Such a program requires the formation of an air travel bank (ATB). This paper describes the ATB public-private partnership approach to air service development and also provides implementation guidelines to airport managers and regional development agencies.

There is related literature on airport route development. STRAIR (2005) provides a comprehensive manual on different route development approaches which the manual refers to as air service development. Nolan et al. (2005) examine various schemes to attract air services in smaller markets, including guaranteed revenue approaches like ATB. Each approach is evaluated in terms of social welfare and underlying agency costs. For this evaluation, Nolan et al. assume the demand for a new air service to be insufficient to allow for a supply-and-demand based market solution, while in the present paper, sufficient demand is assumed to exist, but a start-up aid as temporary incentive is required to allow this latent demand to become actual demand. An overview of current airport route development practices is given by Halpern/Graham (2015) based on a survey of 124 airports worldwide. They point out the importance of incentives and risk sharing initiatives offered by airport operators, not only to low-cost airlines, but to all types of airlines. Allroggen et al. (2013) employ a probit instrument variable approach to a sample of 194 European airports to study the factors influencing the presence of such incentives. In an earlier study, Martin (2009) surveyed 41 smaller airports in the US. A more general perspective on marketing tools available to small airports is given by Kramer et al. (2010). Discounts on airport charges as frequently used financial incentives are analyzed by Fichert and Klophaus (2011) and Jones et al. (2013). Núñez-Sánchez (2015) assesses factors affecting the willingness of regional public authorities to support route and traffic development. Wittman (2014) studies public funding of airport incentives in the US with a focus on the efficacy of the Small Community Air Service Development Grant Program (SCASDP).

The present paper describes ATB programs as a public-private partnership approach to airport route development and provides success factors for this route development tool that may also serve as guidance to airport managers and regional development agencies. It concentrates on the start-up of new services at smaller airports. The focus on smaller airports is quite common in the literature on airport route development. "Arguably, it is these airports that face the greatest challenges in, but also rewards from, attracting airlines and

improving the provision of air services” (Halpern/Graham, 2015, p. 215). A small airport in the context of the present paper does not mean a general aviation airport, but an airport with sufficient infrastructure to offer scheduled air services. Further, it is assumed throughout the paper that the considered airport operator is a publicly owned entity which is still a valid proposition for most airports around the globe.

2. Guaranteed ticket purchase program with air travel bank

A guaranteed ticket purchase program with an air travel bank (ATB) builds on the idea of obtaining binding monetary pledges from air transport users (businesses and individuals) that constitute a revenue guarantee for new or expanded air services. The local community is pre-purchasing airline tickets for future use. This financial commitment also serves as a signal to prospective airlines that there is local support for a specific air service initiative.

2.1. Stakeholders

Table I outlines the involved stakeholders and their roles. The ATB holds the escrow account with the monetary pledges, where the money is safely held in trust until it is deployed to pay for provided air services. Escrow generally refers to money held by a neutral and financially trusted third-party in a blocked account on behalf of transacting parties.

An ATB program typically builds on a public-private partnership (PPP) as some stakeholders belong to the public sector, while others come from the private sector. Air services from a publicly owned airport are developed through a partnership with private businesses. To facilitate a PPP involving partners from the business community, the airport operator ought to get the support of the local chamber of commerce and/or a regional development agency.

Table 1
Stakeholders and their roles

Stakeholder	Primary role
Bank (ATB)	Holder of escrow account
Local business community	User of air service; pay money into escrow account
Airline	Air service provider; receives money from escrow account
Airport operator	Service provider to airline; receives aeronautical non-aeronautical revenues (e.g. airport charges)
Regional development agency and/or chamber of commerce	Facilitator, acts as intermediary between airport operator and local business community

Source: own representation

2.2. ATB execution

The execution of a guaranteed ticket purchase program with ATB typically involves the following steps:

- Private businesses (and individuals) interested in supporting an air service initiative pledge money.
- The money is deposited in an ATB. Funds are held by a commercial bank. Interests are paid.
- ATB participants can use their funds to purchase tickets with the partner airline.
- Airline ticket purchases with the partner airline made through the ATB are paid from ATB deposits.
- ATB funds are restricted to payments for tickets with the partner airline.
- The ATB program lasts for a specified period (e.g. 12 months).
- Unspent funds are paid out to the airline at the end of the agreed period and in turn, the airline will issue travel vouchers.
- If the airline pulls out before the end of the agreed travel period, the remaining funds are returned.

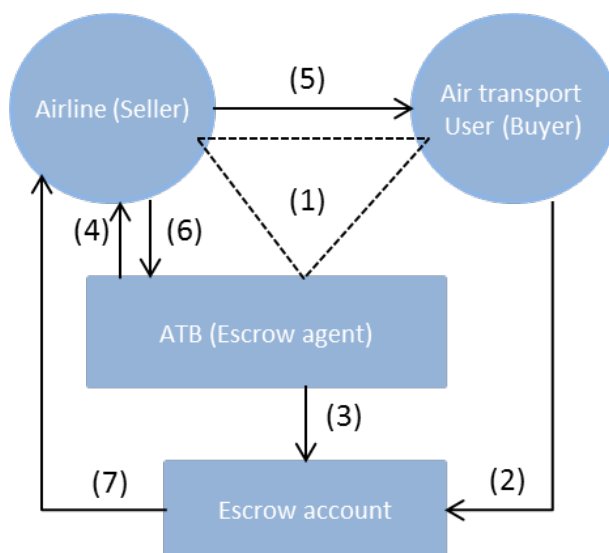


Figure 1: Execution of a guaranteed ticket purchase program with ATB

Source: own representation

Figure 1 visualizes the ATB approach. (1) The escrow agreement is signed between an air transport user (buyer) and an airline (seller) with the ATB acting as escrow agent. (2) The buyer deposits money in escrow. (3) ATB manages the account and (4) confirms to seller that the money has been received. (5) The required services are performed and (6) proof of delivery is sent to ATB. Finally, (7) ATB releases the money in escrow to seller after the release conditions described in the escrow agreement have been met. Hence, the seller is sure that the buyer has made the money available to the trusted third party. The buyer can be sure that the money will only be released as agreed in the escrow agreement.

3. Alternative airport route development tools

Airport route development is done through close co-operation between airports and airlines. The establishment of new or expanded air services is often accompanied by some form of incentive offered by airports to airlines. This includes a wide range of non-financial incentives to the airline - from the provision of market information to promotional activities by the airport operator - but also different types of financial incentives (see Figure 2).

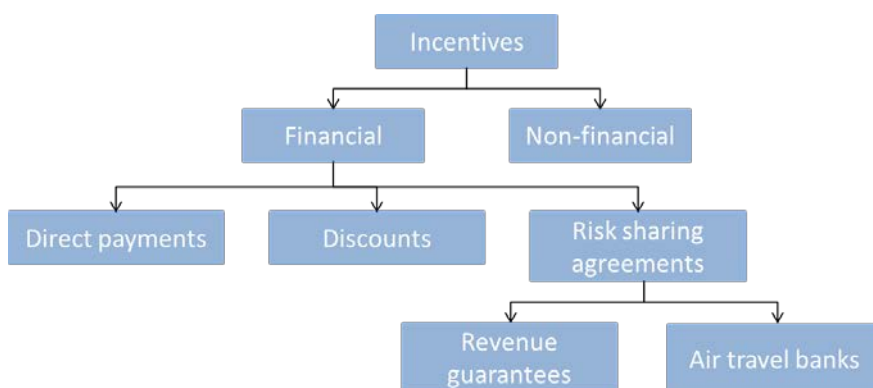


Figure 2: Overview of incentives for airport route development

Source: own representation

3.1. Short-term impact on airport profits

Financial incentives can be divided into direct payments (payments per flight or passenger, marketing budget), discounts on airport charges and risk sharing agreements (STRAIR 2005, Fichert/Klophaus 2011). The short-term impact of direct payments as well as discounts on airport charges is negative on the operating result of an airport operator. Losses of publicly owned or financed airport operators are typically covered by some sort of taxpayer-funded resources.

Such use of public money can be an area of controversy. An advantage of well-structured risk sharing agreements is to avoid this negative influence on airport profits. Tools in risk sharing between airports and airlines are revenue shortfall guarantees and guaranteed ticket purchase programs with air travel banks (ATBs). A revenue shortfall guarantee only leads to payments when the airline's revenue for a specified time period is less than the minimum revenue established by contract. The ATB approach avoids payments between airports and airlines altogether.

3.2. Regulatory issues

Financial incentives may lead to operating losses of airport operators, if not covered by some sort of funding. Public funding, i.e. the use of taxpayer-funded resources, as a state aid to airports is scrutinized by regulatory authorities. Start-up aid and permanent aid can be distinguished. Permanent aid might be justifiable for the provision of so-called "essential" air services. Examples for such support programs based on public funding to support a minimal level of scheduled air service to rural communities are the Essential Air Service (EAS) program and the Small Community Air Service Development Program (SCASDP) in the US and the Public Service Obligation (PSO) program in the EU. Such government intervention in form of financial assistance to small communities in order to enhance the level of air service is based on the assumption that routes from these communities cannot be profitable in a free market and are therefore not viable. The present paper departs from this basic assumption, claiming that there is latent demand and revenue that is adequate for a continued air service once started. Hence, the deployment of ATBs for the start-up of new routes avoids communities lobbying for public financial support which inherently leads these communities to overstate demand.

Start-up aid is scrutinized by authorities for distorting effects on competition. In February 2014, the European Commission adopted new guidelines for state aid to airports and airlines, designed to ensure the mobility of citizens while minimizing distortions of competition in Europe's Single Aviation Market (European Commission, 2014). According to the new EU guidelines, start-up aid with public money may be granted for the launch of new routes from airports with annual passenger traffic of less than 3 million, if certain compatibility conditions and notification requirements are met. The compatibility conditions include that the amount of aid received represents only up to 50% of the airport charges and also the existence of an *ex ante* business plan, showing profitability of the route after at least 3 years. On a case-by-case basis, start-up state-aid may also be granted to airports with between 3 and 5 million passengers. Only in peripheral regions, start-up state-aid may be granted irrespectively of the airport size.

There is much uncertainty about the legal practice of these guidelines. Notification procedures, i.e. the process of getting approval for state aid, are time-consuming and often involve costly legal advice. The ATB approach promises to avoid many of the aforementioned time-consuming regulatory and legal issues associated with public financing and state aid which also represent a significant financial risk to the involved parties.

4. Economic success factors

While a plethora of economic impact studies have emphasized the value of air services as a location factor for business development (see, for instance, Button et al., 2010), the use of public money for developing air services is still an area of controversy. In addition, public financing might simply be unavailable or only available in conjunction with restrictive conditions. A guaranteed ticket purchase program with ATB does not use public money if all entities that pre-purchase tickets belong to the private sector. However, sometimes it is difficult to determine whether a business is part of the public sector or the private sector. Besides legal ownership, economic ownership also matters as a criterion, i.e. how the business is controlled and mainly financed needs to be considered. This is not necessarily determined by the shares held by the government (Lienert, 2009). Most regional development agencies, including tourism authorities, are controlled and financed by federal, state or local government and, thus, belong to the public sector. It may be more advisable if such entities do not pre-purchase tickets as part of the ATB concept in order to avoid issues with state aid regulation, resulting from mixed financing of money pledges.

4.1. ATB indicates lower limit for demand

Not only the raised amount of pledges is important, but an ATB initiative as such is a signal to a prospective airline that conveys some information on local interest and demand for an improved air service. Only if a business community has a true interest in a given route development, will an ATB receive significant amounts of money pledges, as the money in the ATB is lost to the private businesses (and individuals) if not used for air travel. Unspent money at the end of the agreed period is typically paid out to the airline. That is why rather conservative pledges are to be expected, even if the escrow agreement requires the airline to issue travel vouchers at the corresponding value of the remaining deposit. Hence, the total amount of money in the ATB gives a lower estimate of revenue which the airline can expect during the period (e.g. 12 months) specified in the escrow agreement. It is also unlikely that the level of demand represented by the money pledges will disappear after the end of the contract period.

4.2. Avoidance of the public goods dilemma

Even if there is a strong community interest in expanded air transport services to strengthen local business and economic activity, the success of an ATB initiative still depends on the avoidance of a public goods dilemma, linked to the free rider problem. The required commitment of a business community is an outcome based on the individual decisions of private businesses asked to pay money into an ATB. These businesses will weigh up individual interests against the collective interest in scheduled air services which can be considered as public goods in a broader sense, as scheduled air services are open to use by the general public, i.e. any business has access in principal, without reducing the availability to other businesses. Any participation in an ATB is time-consuming and involves transaction costs on top of the payments for tickets. Hence, potential users of new or expanded air services can save time and money by not contributing and expecting other businesses (or individuals) to provide the necessary money pledges.

To overcome the free rider problem as a hindrance to the success of an ATB initiative, the following measures by the airport operator, the regional development agency and/or the chamber of commerce are conceivable:

- Address only businesses in the surroundings of an airport known to be heavy air transport users,
- Provide simple execution procedures and efficient communication in order to reduce transaction costs for businesses,
- Appeal to companies' social responsibility,
- Arrange for matching contributions with public funds.

The presence of companies with significant year-around air travel demand in the airport's vicinity is probably the most basic prerequisite for any successful ATB initiative. It is less promising to target heavy users at the opposite end of a projected air route as the inclusion of businesses, which might even be located in a different country, increases transaction costs for ATB agreements. Further, for obvious reasons, it is more difficult to appeal to a company's social responsibility in connection with a distant community.

4.3. Support by regional development agency and/or chamber of commerce

In order to properly address the relevant companies within a region and to appeal to their social responsibility, the airport operator should try to get the support of the local regional development agency and/or chamber of commerce. These institutions can facilitate the establishment of an ATB by acting as intermediaries between the airport operator and the local business community.

For example, a chamber of commerce can make use of regular meetings and established communication channels within its network of chamber members. Beyond their coordinating role, these institutions might arrange for matching contributions with public funds. However, such mixed funding of start-up aid for route development might cause the regulatory issues that the ATB approach promises to avoid with solely private financing.

4.4. Value proposition to the local businesses community

On the outset of an ATB initiative, not all parameters of an aspired new or expanded service are fixed. For example, there might be uncertainty as to the amount of tickets a pledge will buy, but also other services attributes. Clearly, it is easier to provide reliable information on ticket prices and service attributes such as frequencies, arrival and departure times or aircraft types for stand-alone point-to-point routes. However, the key route development objective at smaller airports is often to gain access to a hub airport. Hub access offers the business community surrounding a smaller airport not only a point-to-point service into the hub airport but also connecting services to various destinations. Average fares will differ with the respective travel destination. Hence, providing hub access offers greater benefits to the local business community than a stand-alone point-to-point service, but the additional benefits resulting from connecting flights are more difficult to assess for prospective users.

4.5. No nearby airports with competing scheduled air services

The success of any ATB initiative also depends on existing travel alternatives. There should be no nearby airports with competing scheduled air services. For short-haul travel, the availability of other modes of transportation also needs to be considered. In practice, some discussion might result from answering the question on what constitutes a nearby airport and/or competing scheduled air services. Start-up aid with public funding is not compatible with the new EU Guidelines on state-aid to airports and airlines when a connection which will be operated by the new air route is already operated by a high-speed rail service or is available from another airport in the same catchment area under comparable conditions (European Commission, 2014). According to the EU guidelines, the catchment area of an airport is defined as a geographic market boundary that is normally set at around 100 kilometers or around 60 minutes traveling time by car, bus, train or high-speed train. If another airport with competing scheduled air services can be reached in less than 60 minutes by car, it is unlikely that a local business community will support an ATB initiative.

4.6. Sufficient financial commitment to influence airline network planning

The financial commitment by a local business community needs to be significant from an airline's point of view. In order to have an impact on airport route development, a total amount of €100,000 in an ATB will probably not be sufficient as the following simple calculation shows: If an average return fare of a voucher of €300 is assumed, €100,000 corresponds to less than one passenger on a new year-around service with two daily frequencies. Even an amount of €2,000,000 corresponds only to approximately 10 passengers per flight which is not much for an aircraft the size of a Boeing B737 or an Airbus A320. There are airlines operating small twin-turboprop (e.g. the British Aerospace Jetstream 31, having a seat capacity of 19 seats). However, these airlines require high yields for return tickets to allow for route profitability and, subsequently, a sustainable operation. Alternatively, starting a route offering hub access and long-haul connections might not require as many daily frequencies as a stand-alone service. For example, Turkish Airlines offers access to its Istanbul hub from German regional airports starting with three frequencies per week. An escrow amount of €2,000,000 and an assumed average return fare of €600 - as a result from the mix of fares for travel into the hub and beyond to long-haul destinations - would then correspond to more than 20 passengers per flight to/from the airport of the ATB community. This might influence airline network planning considering that the ATB gives a lower limit for the revenue the airline can expect from its service offering. Therefore, ATBs might be more promising for routes offering hub access than for stand-alone point-to-point services.

5. CONCLUSIONS

A guaranteed ticket purchase program with air travel bank (ATB) is based on the financial commitment of the business community surrounding an airport. It is a form of private financing of airport route development contrary to, for example, cost subsidies like discounts on airport charges covered with taxpayer-funded resources. Hence, it is especially appealing for airport operators when public funding for route developments is not available or if the acquisition of public financing is considered to take up too much time or to consume too many resources. ATBs as public-private partnerships with the local business community may give airport managers some leverage in the struggle to develop air services while at the same time, it is no state aid as no public money is spent for route development.

In comparison with offering revenue guarantees as another type of risk sharing agreement that in principal can be funded completely with private money an ATB has several advantages as a financial incentive to develop air services from a smaller airport: it is less risky for businesses depositing money in escrow accounts, as they get air travel for their money and there is a clearer connection

between costs and benefits that tends to diminish a potential free rider problem. A guaranteed ticket purchase program also indicates existing demand for new air services. There are fundamental success factors for ATB initiatives such as receiving support from the regional development agency and/or the local chamber of commerce, a clear value proposition to the targeted businesses from the beginning of an ATB initiative, no nearby airports with competing scheduled air services and a total amount of money pledges that is sufficient to actually influence airline network planning.

The ATB concept is appropriate if there is confidence in the level of latent demand that - once revealed - sustains the new air services. Documented failures of guaranteed ticket purchase programs with ATB may be the result of an overestimated demand which leads air services to be discontinued at the end of the ATB contract period. Nevertheless, financial commitments by potential users of new or expanded air services are certainly more reliable predictors of commercially viable air services in competitive markets than government subsidies.

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THE RECOMMENDATIONS FOR OPEN HARBOR INITIATIVE

JEL classification: H54

Abstract

The efficiency of harbor management plays a significant economic role to a nation in various aspects, including trading business, logistics and the manufacturing. The visibility of harbor activities and management determines the performance of the whole logistic chain. The harbor agencies continuously strive to provide better operation models to the stakeholders by collecting and analyzing these data populated from the activities. To expedite this improvement, an Open Innovation Model is called to encourage more special interest groups to contribute their works; the harbor agencies disclose the datasets derived from those servicing activities through the government Open Data platforms. Since there is no clear picture of how these contributors would utilize the datasets for their researches, there is a considerable requirement gap between the dataset provider - the harbor agencies and the consumers - the interest groups. This paper surveyed the open datasets provided by the advanced harbors using the textual analysis and the text mining approaches to emerge the potential requirements for the Open Harbor initiative followers such as Taiwan. By taking the example of Taiwan Open Harbor initiative, it reexamined the potential meaning against the already opened datasets and tangibly identified where they could be further enhanced to bring more value to the interest groups. Based on these findings, this paper presents the initiative realization models through the Enterprise Architecture - a methodology of defining the information systems from the strategic planning to the realization - processes as the recommendations to those pursuing operation eminence harbor agencies.

Key words: open data, enterprise architecture, open innovation model, harbor management

1. INTRODUCTION

The business and industrial optimization has been set as a competitive strategic policy of both the government and the enterprises recently. The expectation of a harbor is no longer restricted in the conventional mooring services; instead, the stakeholders and the public demand more diverse services such as the route safety, the berth scheduling, and the shipping information, for better harbor performance and providing more value against the competing harbors. The maritime industrial issues (World Shipping Council, 2015) are: (1) **Environment**—how to improve air quality, climate, preventing the spread of invasive species, the reduction of marine noise, and a variety of other issues relating to protection of human health and the environment; (2) **Security**—how to enhance maritime, cargo and supply chain security including the security of ports, vessels, cargo and personnel; (3) **Safety**—how to offer the safe operation of both ships and the cargo handling; (4) **Infrastructure**—how to sustain sufficient land-side capacity to keep cargo moving to maintain ships schedules; and (5) **Cargo Liability**—how to verify and clarify the responsibility proportion sharing among parties in case of damage occurred.

The concept of **Open Harbor** is to provide more visibility of harbor management to the stakeholders including: (1) **Carriers**—to monitor the ship berth scheduling and the status of dock operations; (2) **Shippers and Consignees**—to check the movement of the interested vessels for further shipment preparation; (3) **Forwarders**—to manage cargo embarkation and discharge; (4) **Supply Chain**—to analyze the performance of the carriers and their vessels such as the possibility of delay, the route of visited ports for the last period of months; (5) **Harbor Administrators**—to measure the performance of operations, the berth scheduling optimization, the revenue and the cost contribution of services; and (6) **Researchers**—to improve the quality of reports, making suggestions to the authority, disclosing industrial implications, and other research on the aforementioned maritime issues. The Open Harbor is a collaborative platform with network externality (A-bing & Dao-li, 2006)—the more parties join the collaboration will generate more value to the contributors as the positive feedback—for the stakeholders in nature. Furthermore, such a harbor can apply the **Open Innovation Model** (Chesbrough, 2013) to realize the new business initiatives with the cross-sector enterprises through the platform to answer the industry issues and to respond the potential needs of the stakeholders.

Evidently, the realization of the Open Harbor needs to apply the technologies including: (1) **Information and Communication Technologies (ICT)**—expanding the collaboration required features over the current harbor management systems; (2) **Internet-of-Things (IoT)**—to deploy a sensor network collecting the real-time information from the environment (such as from waterways and oil tanks facility), equipment (such as from docking, mooring, buoys and navigation assistants); and (3) **Big Data**—to provide the statistics of harbor activities and management, to disclose the worth-improvement of the harbor

services, and to explore the potential new services that will bring synthetic values to the stakeholders.

This paper surveyed the open datasets provided by the advanced harbors using the textual analysis and the text mining approaches to emerge the potential requirements for the Open Harbor initiative followers such as Taiwan. By taking the example of Taiwan Open Harbor initiative, it reexamined the potential meaning against the already opened datasets and tangibly identified where they could be further enhanced to bring more value to the interest groups.

2. OPEN DATA RELATED TO HARBORS

The US Open Data website (Data.Gov, 2015) reports 587 datasets found related to the “harbor” term; among these datasets, there are 243 datasets found related to the “management” term, 171 datasets found for the “navigation” term, and 4 datasets found related to the “berth” term. The website also reports 956 datasets found related to the “maritime” term; among these datasets, 23 datasets found related to the “statistics” term.

The UK Open Data website (Data.Gov.UK, 2015) reports 747 datasets found related to the “port” term; among these datasets, there are 81 datasets found related to the “management” term, 586 datasets found for the “navigation” term, and nothing found related to the “berth” term. The website also reports 1374 datasets found related to the “maritime” term; among these datasets, there are 19 datasets found related to the “statistics” term.

The Singapore Open Data website (Data.Gov.Sg, 2015) reports 65 datasets found related to the “port” term and 7 datasets found related to the “maritime” term. The Port Statistics dataset covers seven category data: (1) vessel arrivals, (2) tank arrivals, (3) vessel calls, (4) total cargo, (5) total container throughput, (6) bunker sales, and (7) registry of ships. The UK and US also provide similar information for their harbors respectively.

Taiwan Open Data website illustrated in **Figure 1** (Data.Gov.TW, 2015) are in Traditional Chinese (Zh-TW); this paper uses Google Translate to translate the name of the datasets into English. The website reports 77 datasets provided by the two harbor authorities; a world cloud—a visual representation of user-generated electronic tags or keywords that classify and describe online content, typically an alphabetical list or a grouping of words in different font sizes, as to show relative frequency or provide links to further information—illustrated in **Figure 2** represents the words of the names of these datasets and shown in different sizes based on their occurrences.

details from the goal setting to the realization. This paper proposes the Integrated Strategic Planning Model, which incorporates the **STEEP** (Social, Technologic, Economic, Environmental, and Political)—an overall socioeconomic scan to identify the potential values and risks of the strategy and to set actions to take advantage of positive drivers and to minimize the impact from the negative factors—analysis (Ho, 2014) and the **Strategy Map**—to capture and communicate the strategy, to manage the performance during the strategy execution, and to align the investment and the drivers (Jafari & Tootooni, 2015)—on top of **Enterprise Architecture Framework**—as the tool for the strategic planning and the following implementation of Open Harbor by the approach of building-blocks and their specific-defined interrelationship (Zarvić & Wieringa, 2014).

3. STRATEGIC ENTERPRISE ARCHITECTURE

The essence of new open harbor initiative is about strategic planning which is a part of the harbor administrative management activities. Setting a reasonable and feasible goal will determine the success of a series of latter actions. Before setting such a goal, the harbor must examine the current situation and the resources can be deployed as the baseline architecture to achieve the goal; by using the same approach the harbor also needs to identify the future state as the target architecture of the goal. The difference of the baseline and the target architecture is a sort of gap analysis.

The harbor elaborates a number of sequence plans to mitigate the gap. Behind these sequencing plans, for internal aspect, there is a strategy map (Aslani, 2009) within the core to cover four perspectives: (1) **Customer**—a value proposition that will fit in the market demand; (2) **Financial**—a return-of-investment analysis including the future revenue stream and the budget incurred; (3) **Internal Processes**—a series of activities that will realize the set goal; and (4) **Learning and Growth**—the intangible outcomes including the intellectual properties, the competitive capability and the experience accumulated during the goal realization.

From external aspect, these sequencing plans cover five perspectives: (1) **Social**—considering the externality, an indirect effect that might positively bring the good results and negatively impact to the society; (2) **Technological**—considering how to leverage the current integrated technologies that would provide more responsive and accurate information for better visibility over the harbor management; (3) **Economic**—considering the potential generated business opportunities and the job vacancies through this investment; (4) **Environmental**—considering the green harbor, to protect our living neighborhood; and (5) **Political**—considering the policy-making to encourage the members of the value chain would innovate more competitive services.

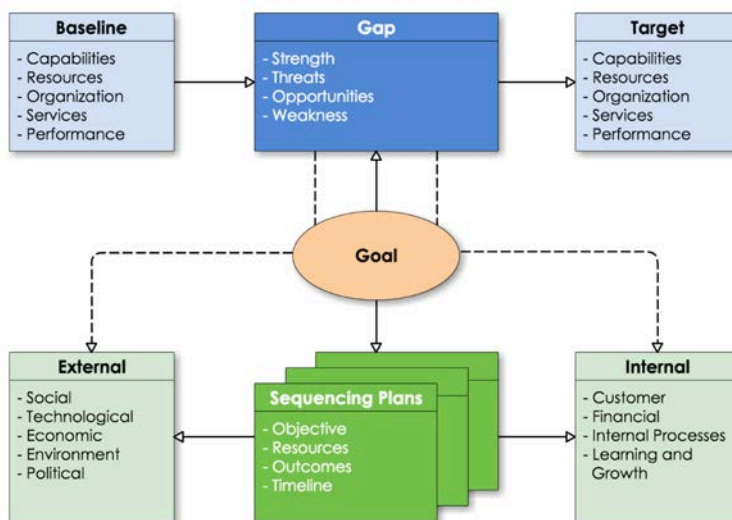


Figure 3. The Integrated Strategic Planning Model

By evaluating these two internal and the external aspects, a number of sequencing plans governed by the Balanced Scorecard which is the performance measurement tool of the Strategy Map are set to ensure the goal will be achieved. Applying the conventional project management processes, the project team of the initiative manages these sequencing plans. The **Activity-based Costing**—a costing methodology for more precisely allocating overhead and works best in a complex environments—can be in place to prevent the planned spending over the budget (Lin & Yahalom, 2009).

The **Figure 3** illustrates the Integrated Strategic Planning Model, the center is the set goal that will perceptually mitigate the gap and thus derive a series of corresponding sequencing plans. For simplicity, the gap analysis applies the common SWOT (Valentin, 2001, p.54-22) approach.

For Taiwan Open Harbor initiative case, the goal is set to build a collaborative platform; both the baseline and the target architectures are to evaluate the following aspects in a head-to-head manner: (1) **Capabilities**—such as the capability of applying the technologies required by the Open Harbor; (2) **Resources**—such as the internal project team, the external professionals, the budget and the timeline; (3) **Organization**—such as the project team, the new task forces, the accountability and the responsibility; (4) **Services**—such as supply replenishment, docking, piloting, and seamen living during the stay; and (5) **Performance**—such as the efficiency of operations, the revenue and cost, the equipment readiness, and the pollution protection. In addition to evaluating these two architectures, for the gap analysis, the harbor administrative can identify several potential competing harbors such as Hong Kong, Jeju, or Zhoushan and incorporate several SWOT competitive analyses within the goal; this will make

the strategy realization more tangible and focused. The administrative can set the sequencing plans to: (1) join international maritime organization; (2) initiate a various forums for stakeholders; (3) form a research team including the external professionals and the internal functional members to study the trend of harbor management and the service innovation; and (4) build a collaborative platform for better harbor management visibility.

4. OPEN HARBOR INITIATIVE

Taiwan government has launched the industrial optimization initiative, “Three Industries, Four Reforms”, and set three major strategies across the sectors to recalibrate and adjust the industry structure and the business models: (1) **Manufacturing Sectors**—to design and deploy new value-added services to the supply chain; (2) **Service Sectors**—to leverage technologies and expand the business internationally; and (3) **Traditional Sectors**—to enhance and address the uniqueness and creative to explore the new market. The Open Harbor initiative can play a significant role more than just in logistics in this optimization: (1) **Commodity Tracking**—by combining the shipment detail from the Custom information, the harbor administrative can track where the commodity came from and where it flowed to; (2) **Ships and Routes**—the harbor administrator can precisely trace the ports visited over the past; (3) **Shipment Status**—all interested groups including the shippers, the consignees, the forwarders, and the carriers can promptly acknowledge the shipment status change of vessels; (4) **Harbor Readiness**—the carriers can obtain the crowdedness of the anchor area and the water-ways, the berth scheduling, dock equipment utilization and the maintenance plan, the harbor pilot duty schedule etc.; and (5) **Harbor Safety**—to collect the real-time information from the environmental protection sensors such as for pollution, fire and smoke, drifting good, harbor tide and wave etc..

This paper proposes the Collaborative Platform of Open Harbor illustrated in **Figure 4**. Each feature block contains the operation detail, the measurement of performance, and the statistics of operation. The model answers the aforementioned maritime issues and the needs of the stakeholders and the industrial optimization. The platform offers two dynamics, the maritime—collecting the information of the latest news, knowledge, and the trend, and the industry—collecting the information of “Three Industries, Four Reforms”, supply chain, and the market trend. The collaboration feature is to provide the online forums and wikis to let the stakeholders share their thoughts and expectations with others. The sensor management feature monitors the status of readiness and collects the real-time data from the deployed sensors. The booking services are for the carriers to make berth reservation of vessels, the feature will respond the tentative schedules for the requests.

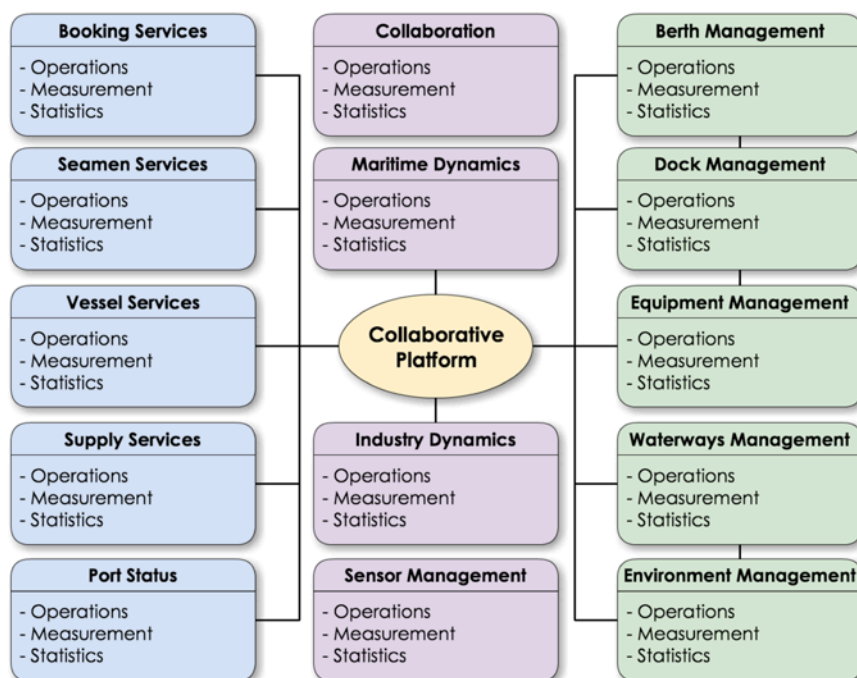


Figure 4. The Collaborative Platform of Open Harbor

5. CONCLUSION

The Open Harbor has been a trend in modern harbor management. The objective of this initiative is to make the traditional harbor operations to be more service-oriented and proactive to solicit the requirements for further improvement from the stakeholders. From the harbor administrative perspective, this initiative will change the existing bureaucratic organization to be more agile toward the business and will encourage the evolved organization continuous to innovate valuable services and thus making the harbor better every day.

For better harbor competitiveness, the Taiwan harbor administrative just launched two parallel projects towards the Open Harbor initiative aiming the maritime and industry dynamics; one focused on the harbor management optimization, and the other project related to Big Data exploring new potential business models from the historical logistics information. The externality to the various types of stakeholders is one of the key considerations of an Open Harbor are a part of the Open Government initiative; it requires a holistic view from the strategy to the implantation, adopts the information technologies as the enabler, and is able to change agilely. The Enterprise Architecture methodology has been widely used in public services in many governments such as in US and Europe

(Guijarro, L. 2007). Therefore, by reviewing a number of the e-government of by applying the EA to success (Peristeras & Tarabanis, 2000)(Janssen, 2011), this paper recommends that the Open Harbor initiatives take the same top-down strategy realization approach and begin with the building of the proposed collaboration platform as the cornerstone to achieve the mission goal confidently.

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A MULTIPLE-CRITERIA ANALYSIS APPLICATION FOR VERTICAL COORDINATION IN THE TRANSPORTATION OF AGRICULTURAL COMMODITIES IN BRAZIL

JEL classification: L1, R4, C8, Q1

Abstract

The strategies to perform the transportation of agricultural commodities by truck in Brazil are a challenge to decision making. This paper brings together widely held theories that are vertical coordination and decision analysis, to present a discussion of decision making in organizations. From a model capable to process main objectives, multiple criteria and variables found in transport verticalization problems, the results showed worse performance than hybrid or outsourced alternatives. This result supports that in environments with high dependence on low costs and asset specificity are no more likely to meet hybrid structures or market coordinated. However, the descriptive survey of road transport with agricultural shippers and the results of the multicriterial model indicated a highly outsourced transport market, which would be fostered by the current uncertainty and low professionalism of haulers. As the price difference between the outsourced model and vertical decreases there is a preference for hierarchical structure given his best performances in the benefits offered. Given the changes in the institutional environment, such as the transport regulation, competitive arrangements may change. This type of preference by decision makers would compose the vertical structures with more scale strategies by shippers.

Key words: truck transport, vertical coordination, decision analysis, logistics, transport regulations

1. INTRODUCTION

Vertical coordination can be observed in determined supply-chains, reflecting governance patterns among active agencies. In agrobusiness, companies possess diverse models of vertical integration, and in the case of solid agricultural grain transport, this characteristic is relevant in strategic decision making.

This work proposes a way to facilitate decision making through a fundamental model seen in classical theories, such as vertical coordination (Williamson, 1989; Zylberstajn, 1995). and multiple-criteria decision-making analysis (Belton & Stewart, 2002; Franco & Montibeller, 2010). The principal trade-offs encountered during the decisive process of vertical integration in highway transport will be discussed. At the end of the study, structuring company decisions based on better competitive advantages and performance through a multiple-criteria model will be proposed.

While grain production in Brazil stands out in the world due to high productivity and the occurrence of at least two crops per year, the logistical deficiency in the entire agroindustrial system is the greatest challenge. The logistical impact directly affects production costs, as well as the value of products in agroindustrial units, since the most common pricing determination for agricultural commodities is grain quotation in the international market, discounting freight costs. The objective of vertical coordination is to minimize transaction costs and can be highly efficient if the institutional environment can reduce uncertainties.

According to the soybean transport matrix developed by ANEC (2010), the participation of highway transport in Brazil is considerably elevated (53%), while other countries with continental dimensions such as the United States possess a larger participation of waterway transport (60%). Transport had a share of 10.6% of the Gross Domestic Product (GDP) in 2010 (ILOS, 2013), and was one of the most important segments of the Brazilian economy. On the other hand, the significant dependence on the highway system has been offset by its lack of organization and uneven regulation up to now. The unavailability of information, lack of professionalism, and limited knowledge on the part of agents has yielded a market of highway freight which is highly seasonal and "informal". A group of diverse researchers has done pioneering research in the logistics related to agricultural commodities in Brazil (CAIXETA-FILHO & GAMEIRO, 2001; CORREIA JUNIOR, 2001; GAMEIRO, 2003; MARTINS, 2008).

Due to government initiatives, advanced technology, and strong investment by the private sector, there has been a dramatic change in the last decade in the profile of the entrepreneur who works with logistics (NTC, 2014). The numbers presented in the bibliographies at the end of the '90s, by Soares & Caixeta-Filho (1997) for example, do not represent the current market which has been modernized to a point of economic equilibrium, more secure and controlled,

with more active transport companies involved, and less autonomous participation (ANTT, 2013). In spite of the seasonality of the freight as one characteristic factor in the agroindustrial sector, described by Caixeta-Filho & Gameiro (2001), the current values practiced cover the costs of the transporter, permitting fleet modernization. In 2013, with an average age of 10.9 years, 73% of the heavy fleet was retired in the next ten years, meaning that approximately 48% of the equipment was less than five years old (ANTT and ANFAVEA, 2013). The agroindustrial sector corresponded to 81% of highway licensing implemented in the last ten years (ANFIR, 2013), clearly showing the importance of agricultural commodities for transport, and vice versa.

Political initiatives were vital for this growth. Long-term investments in infrastructure, low-cost lines of credit, electronic financial transactions, and the increased autonomy of the regulatory agency ANTT (Agência Nacional de Transportes Terrestres: The National Agency of Terrestrial Transport) have allowed greater security for investors (NTC, 2014).

The combination of factors shown here has allowed the entrepreneur to procure investment opportunities in transport. Vertical coordination permitted large industries to perform investments and reduce costs at the same time. This theory can be observed in the literature of the Economy of Transaction Costs (ECT), as described by Zylbersztajn & Nogueira (2002), showing that contractual agreements could be copied and used in a symmetrical way by agents in the same system.

Naturally, such investment decisions are not simple, and require adequate tools to predict results. Due to the complexity of defining a model which gives the most adequate solution, multiple-criteria analysis can facilitate turning subjective solutions into more objective ones, based on criteria linked to value curves. The use of Multiple Criteria Decision Analysis (MCDA) has now been studied for 20 years in Brazil in the logistics sector (PRADO, 2011), and was always more focused on the selection of suppliers. Its use was also spread to support linear programming models such as the proper localization of factories and warehouses, optimization models in general, and even public political decisions (MONTIBELLER & YOSHIZAKI, 2011; PADOVANI et al., 2008; FRANCO & MONTIBELLER, 2011; ROY, 2010).

Among the diverse complexities seen in establishing a decision-making process, Keeney (1982) points out that multiple objectives, intangible aspects, various decision-makers, trade-offs, long-term horizons, risks, and uncertainties all create a relatively difficult atmosphere in which to make clear decisions. As a result, the theoretical approach of multiple-criteria selection can allow stakeholders to improve their decisions. In this context, Almeida (2010) defined value trade-off as the indifference between two consequences, and thus, the stakeholders (the persons affected by the decision) would be equally satisfied with the choice.

Thus far, such research presented has stressed the importance of this theme, principally for shippers of agricultural cargo who could adopt similar strategies depending on the environment to which they are exposed. In such a dynamic market, possessing strategic flexibility is a differential. Consequently, the existence of analytical intelligence which permits an assertive position is extremely important.

As such, the primary objective of this work is to propose a model capable of facilitating decision-making based on the ideal type of governance for road transport of solid agricultural grains from the view of "Trading". For this, the theoretical reference from the "Economy of Transaction Costs", allied with the multiple-criteria decision, will be used. Through this approach, it is possible to determine if verticalized transport models are more attractive than outsourced ones.

The alternative proposals for the analysis consider the following governance arrangements:

- I. Total vertical integration with active acquisition and operation
- II. Partial vertical integration with active acquisition and operation by third parties
- III. Partial vertical integration by sub-contracting third parties
- IV. Total outsourcing, with the presence of long-term contracts
- V. Total outsourcing, without the presence of contracts (spot).

The principal expected results relate to arrangements observed in the market through the proposed model. The following research is also expected to be conducted:

- a review of the complete literature that relates to the history of road transport and its regulation in Brazil;
- introduction to the concept of "Economy of Transaction Costs" and its impact on vertical coordination;
- description of the vertical structures related to road transport of agricultural cargoes;
- development and application of a multiple-criteria model to an actual problem faced by a large shipping company;
- evaluation of the performance of each alternative proposed in relation to the application to be implemented;
- facilitation of the decision-making of shipping companies in relation to the governance model most recommended for the proposed scenario.

1.1. Model and Data

The methodological proposal to conduct this work will be done through the process of Multiple-Criteria Analysis (MCDA) found in Franco & Montibeller's work (2010). This section will allow the reader to understand which concepts will be used in the application of the model, and into which context the problem will be inserted.

An application of the method was done through an actual case study using a large commodities shipper denominated in this work simply as "Trading" (to preserve the confidentiality of the company).

The modelling sequence used in the proposal by Franco & Montibeller (2010) is composed of three phases that will be presented in this section: the Structure of the problem, Structure of the model, and the Modelling of preferences and evaluation of alternatives.

1.1.1. Structure of the problem

The first phase of modelling consists of the definition of a common problem for the group, the identification of the stakeholders, and the scope in which the problem will be developed. In the first stage, interviews with managers of diverse shipping companies of agricultural commodities were conducted. The execution of this descriptive and exploratory phase helped to map existing structures in the market and choose the best context in which to apply the methodology.

The initial sample was composed of 11 managers and logistics directors from large shippers of agricultural commodities, and was distributed as follows:

- ABIOVE (Brazilian Association of Vegetable Oil and Biodiesel Industries) Associates, who transport solid grains and represent approximately 60% of the soy volume processed in Brazil, through 12 associated companies, nine of them shippers and grain exporters;
- ANEC (Brazilian Association of Cereal Exporters) Associates, composed of about 35 associates who contribute nine highway transport companies (including some associates who are not involved in land transport or who are already listed by ABIOVE);
- ANDA (National Association of Fertilizer Diffusion) Associates, composed of the country's principal fertilizer mixers, with 122 associates.

The interviewees responded to open questions focused on the leveraging of existing coordination structures, characteristics of the segment, and the relevance of transport to their businesses. From these interviews, five vertical coordination models for transport were identified. Among these companies, one showed interest in resolving a problem aligned with the objective of this work:

The choice of a strategic transport arrangement which would be more adequate for its activities. This opportunity thus delimited the group of stakeholders and the scope in which the model was applied.

Those who participated in the model's application were Logistics, Operations, and Transport Managers. On average, the group had more than 15 years of experience in the agroindustrial sector as well as internal company processes. In addition to specific knowledge, the group interviewed possessed strong influence on the the logistics decisions of their companies.

Given the complexity of routes, seasonality, the difficulty of measuring costs, and the importance of transport to the sommercialization of their products, the scope was limited to a single route and specific volume that was representative to that business. It was defined that the ideal scenario would be a route where there was linear movement throughout the year, where the transport market would have the most regulation possible, and most importantly for the company's business was that the grain purchase was made from rural producers and exported from these markets.

The intermodal route, with its origin as Highway BR-163 and a major transshipment point in Ferronorte, demonstrated such a representative option that fit the requirements. The average distance of 900 kilometers is close to the national average of 1,000 kilometers, as presented by ANEC (2013), possesses low seasonal movement due to long-term rail contracts, and is inside the state of Mato Grosso which has pioneered fiscal regulation. In the collective opinion of the group, it was the most relevant route to serve as the object of the study. BR-163 in Mato Grosso state is in the principal grain-producing region in Brazil, and is comprised of municipalities such as Sorriso, Simop, Lucas do Rio Verde, and Nova Mutum, among others. It alone accounts for 15% of the national production of soy and corn crops, according to Conab (2013). Ferronorte (a railroad operated by Latin America Logistics - ALL) possesses transshipment centers in the cities of Rondonópolis, Itiquira, Alto Araguaia, and Alto Taquari. These can be operated by the companies' own operators, as well as third parties or shippers who own warehouses with railway siding.

As a result of seasonality, and the lack of a futures market for freight, 2013 was chosen as the year of reference for the application of the problem. Franco & Montibeller (2011) stressed that the problem needs to be one which the stakeholders are well aware of. This particular year had just seen the incorporation of the obligations of the Motorist Law (Law No. 12.619/12) reflected in the freight price, while the volume executed per month by Trading was already known, and it was possible to examine the levels of transport costs, spot freight, and contracts done. To avoid the effects of seasonality, a fixed monthly volume was considered which in total represented 40% of the volume transported by Trading during the year.

The approach used for the application was "Alternative Focused Thinking" (AFT) since the alternatives to be evaluated were already present in the

environment, and in principle, the decision-makers should elect the strategy that best achieves the objective. To facilitate the support of the application, a modality denominated as "Facilitative Mode" was used where the model's developer participated as a facilitator active in understanding the problem at hand. According to Prado (2011), the characteristics of the environment and the necessity of interaction with the group decision-maker create a situation better handled by a facilitator than a specialist (the so-called "Expert Mode"). Three face-to-face sessions with all the participants were conducted, each one lasting around two hours. The primary focus was the structure of the problem and its variables; the secondary focus was the measurement of value; and the third, the evaluation of alternatives. Throughout the process, small individual meetings with each of the members were conducted to check understanding and facilitate the model's development.

1.1.2. Structure of the model

The second stage of modeling proposed by Franco & Montibeller (2010) is the structure of the model which is composed of four phases. The first of them is the identification of fundamental objectives. Together they should result in the final decision, and because of this, they should be obtained through group consensus, preferably a multidisciplinary agreement among the areas involved.

Among the trade-offs observed in agrobusiness logistics, the balance between cost and benefit is the most important. While the cost establishes the competitiveness of a product (the lower the cost, the bigger the purchasing power), the product's quality during the execution of embarkation determines the result of the negotiation. During the presentation, notes were made on a flip chart where the objectives were also listed, along with the premises and principal trade-offs. From the fundamental objectives came the construction of a tree of values. This structure should clearly represent the problem, and according to Franco and Montibeller (2011), can be built from "the bottom up" conforming to the AFT approach, or "top-down" conforming to VFT. This property grounds the choice of the AFT application, and consequently, the model will be detailed beginning with the sub-criteria to then reach the global objective.

The attributes or criteria can be qualitative or quantitative, and should be capable of differentiating characteristics of a determined choice. Many times they appear to be in conflict, and for this, Franco & Montibeller (2007) used compensation by way of value curves to quantify and differentiate preferences in real problems. Due to the great quantity of criteria and different approaches for classification, the use of technological tools aided in the processing of information. The student version of V.I.S.A. was chosen and its methodology presented because of its easy use and processing capacity, as well as the fact that it was already used in diverse studies of MCDA.

During the description of the problem, diverse attributes which could play a part in the objectives of a decision-maker were raised. Later, these criteria were brought to the application to be incorporated or excluded by the model adopted by Trading. In the application stage, these attributes were developed, or in other words, were recognized by the decision-maker. As well as the attributes, the variables obtained in the primary survey were also ratified by the group in this session.

In the problem confronted, the variables chosen were the models of verticalization available in the market, excluding alternatives which did not exist or were not operationalized (such as outsourcing labor only). The variables were also evaluated individually, while they were not submitted to an evaluation through a hybrid model between the two strategies of verticalization, specifically to determine which would be the best strategies individually.

1.1.3. Model preferences and evaluation of alternatives

The last stage of modeling consists of balancing weights, constructing value curves, and applying the model to obtain global performance. For each sub-criterion, value curves were created which were capable of explaining the preferences of the group related to the compensations of each choice. Keeney (1982) reasserted that judgments about consequences are not right or wrong, but only serve to determine the attitude and limits of the decision-maker. These curves measure the relative value between possible performances so that priorities can be established in relation to performance.

The amplitude to which a determined attribute must always vary happens between a minimum and maximum level of acceptance. Also, non-linear preferences can be obtained, and it is very common that the non-linearity between the best and worst performance yields intermediate results which can be almost as good as the best, or almost as bad as the worst performance.

After the construction of the value tree, with the weight of the criteria attributed and value functions constructed, it is already possible to evaluate alternatives. In this process, the performances are assigned to each strategy and each attribute so that performance composition will be capable of classifying the alternative that best achieves the company's objectives. In this stage of modeling, a second interview with the group was conducted in which a partial evaluation of alternatives was done, together with the construction of the value tree.

The same members who participated in the original interview took part again, and the facilitator was a doctorate student. The points raised in the first meeting were consolidated, and the process was then focused on the construction of value curves and evaluation of alternatives. As an auxiliary tool, an electronic form was used for each of the attributes where the value functions were

developed and later the performances of each alternative for each attribute were registered.

After the partial performances were obtained, their consolidation was accounted through the use of the V.I.S.A. software. With this platform, it is possible to make compelling analysis related to decisions with the identification of trade-offs, and a more specific investigation of sensitivity. Even though consolidation was not done directly in the meeting, principal points that could play an important part in the sensitivity analysis were raised. These were defined as the model's "turning points", at first altering Cost and Benefit preferences, and later, measuring the existing difference between the totally verticalized option and the lowest cost.

2. MAIN RESULTS

The results obtained from the model can be best interpreted through sensitivity analysis, which can help in the understanding of the tradeoffs between costs and benefits, showing when there are preference changes for the best arrangement. These results showed that subcontracting is preferred whenever the cost of weight is greater than or equal to 30% in the opinion of the decision maker. As the cost becomes less relevant, vertical partial becomes preferable to the total vertical only when the cost is zero. The best performance of vertical integration occurs when the total cost is lower than 14%; after this, vertical is the second preferred one, weighting 70% of the cost. When cost has a weight greater than 70%, spot arrangement becomes the alternative preferred by the group, and such alternative is the third most suitable for the cost weights varying from 30 to 70%.

Given the preference to the trading cost, performance simulations were performed indicating strategies related to changes in the weight of the cost x benefit ratios. Imagining that the cost will always be an important variable, it was also compared the relative difference between outsourcing and vertical integration strategies (best and worst in the original model, respectively). In the original model, the cost difference between outsourcing and vertical integration was 13%; if it were 2%, that is, if the total vertical option were 2% more expensive than outsourcing, it would be the preferred one due to the observed benefits.

One of the variations considered the assignment of equal weights (50/50). In such type of analysis there is a tie between the vertical part and the alternative spot, with preference for vertical alternative. The contract strategies or full verticalization have the worst performances with these weights, and subcontracting lose points since there is greater preference for benefits. For vertical integration, the subcontract was the preferred one, with the vertical part having a cost of no more than 3.5% higher than the cost of outsourcing.

Another simulation which was conducted involved the reversion of the initial preference, i.e., assigning up to 30% to the weight and 70% to the cost benefit. This model showed a technical tie between the subcontracting strategies and partial vertical integration; it was also observed a tie between full vertical integration and outsourcing through contracts, being the alternative spot the least preferred one. The maximum cost difference allowed between total verticalization and outsourcing was 5%, and at this point there would have a turning point in the preferences by the Trading respondents.

The use of sensitivity analysis proved to be very important to identify turning points, where decision-makers change their preference. This means that as the performance of each alternative changes, the decision may also change. Based on the criteria of cost and benefit, this model can be applied in situations where the service level is more noticeable and in environments where the cost has different behaviors. Whereas the difference between the total vertical and freight subcontracting was only 13%, if the freight value remains increasing above inflation rates because of the demand for the cargo, the vertical option would become more attractive every year.

3. CONCLUSIONS

The use of "the Economy of Transaction Costs" theory, allied with Multiple-Criteria Analysis (MCDA) shown in this work, creates an interesting combination to evaluate competitive arrangements. The study uses value trees to classify verticalization strategies, comparing them in terms of costs and benefits. Beyond this, the study brings an extensive bibliographical review, and a diagnosis of the structures present in shipping companies which deal with solid agricultural grains, forming the basis for the outcome of this dissertation.

Among the models of vertical coordination observed, the following stand out: i. Total vertical integration with active acquisition and operation; ii. Partial vertical integration with active acquisition and operation by third parties; iii. Partial vertical integration without active participation, but subcontracting third-party transport; iv. Total outsourcing with the presence of long-term contracts; v. Total outsourcing without the presence of contracts (spot).

These strategies are used by shipping companies, and the differences among them are characteristics of the market, distinct types of operations, and costs, among others. The regulatory situation that highway transport is currently passing through signals that a dominant model will suffer alterations which, depending on the future scenario, will favor a structure that is more or less vertical.

Aspects contained in the theory, the Economy of Transaction Costs, suggest that in environments with a *high* degree of uncertainty and a larger degree of active specificity, a tendency to find vertical structures exists. This

theory could also be applied to highway cargo transport, and is aligned with the results obtained by the model developed in this work.

The model developed and applied through a case study from a large shipper shows that the preferred level is 70% cost in relation to benefit, and the strategy of partial verticalization through the subcontracting of third parties had the best performance (93). Total verticalization presented a cost of 13% higher to the winner, and because of this, was the least preferred strategy in the proposed scenario with a performance of only 31, in the opinion of the group. Intermediate solutions, such as partial verticalization with active participation by third-party operators, proved to be preferred when the benefit had more weight in the decision, and was also the second alternative classified in the case study.

The method developed shows the capacity to work with objective principles, criteria, and variables encountered in decisions about verticalization. Although the value curves and evaluation of alternatives were developed for a specific situation, the proposed model could be used in similar situations with value curves adjusted to the necessities of each shipper. The analyses presented reinforce that the decisions, albeit subjective, can be quantified. It would be difficult to arrive at whatever result through a mere price chart, and due to this, when using qualitative data drawn from the multiple-criteria approach, the result can be visualized in the clearest manner possible.

Despite the theoretical references of ECT and MCDA being amply diffused, this type of analysis is normally studied through statistical analysis and numerical quantification of attributes, respectively. Still, the model developed essentially considered the opinions of various agroindustrial logistics managers, applied to a specific case study, and capable of bringing a satisfactory result. It would effectively be more adequate if the modeling considered only exact attributes like costs, for example. However, the creation of value curves and evaluation based on value allows the decision-makers to quantify preferences, even though they may be subjective. In addition, the multiple-criteria approach permits a graphic analysis and a better comparison between existing trade-offs.

The descriptive development of highway transport of agricultural grain is currently a point of departure for a more profound study of the changes that will accompany the regulation of the sector. The organizations that are active in this environment will require studies that facilitate the best competitive design so that investments will not be stifled, and that will contribute to the evolution of this segment that remains so very vital to the Brazilian economy.

Regarding the recommendation of future work, it is suggested that a montage of new studies be conducted, considering diverse environments and situations which could explore all alternatives. This research would expand frontiers, compare and contrast highway transport in different countries, or even different regions of Brazil, and then the model could be applied in situations that are seemingly more regulated. The possible variations presented showed that the cost significantly changes the result. Perhaps, in this light, an intriguing

opportunity exists to develop fresh alternatives aiming to minimize costs and this complete this line of research.

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ASSESSMENT OF THE ACTIVITY TO STOP A DECLINE IN THE NUMBER OF SEAFARERS IN THE EUROPEAN UNION - THE CASE OF POLAND

JEL classification: F61, F16, L52, Q38

Abstract

Shipping is, unquestionably, one of the most important determinants of efficient functioning of the contemporary world economy. It is the basis of maritime economy, the significance of which increases with the development of technology. New methods of exploring maritime resources and new opportunities of their use have caused that the European Union, inter alia, in the maritime economy has discovered possibilities to realise the Europe 2020 strategy. It has been confirmed by numerous initiatives on the levels of: union, macro region (i.e. Baltic Sea Region etc.), national. It turned out that the greatest weakness and threat in the achievement of the defined objectives is a decreasing number of European seafarers (especially officers). In this article the roots and the dimensions of that issue were described. The desk-research method as well as the pools method were used to find out the reasons which governed students' choice study at Gdynia Maritime University. The results of investigation constituted the basis to evaluate the effectiveness of the actions aiming to increase interest in work at sea.

Key words: blue economy, shortage of seafarers, maritime policy

1. INTRODUCTION

The process of expanding globalisation is possible due to maritime transport, which on one hand is a driving force of globalisation and on the other hand, is its beneficiary. Apart from transport, maritime economic activity is being undertaken in many areas: excavation of resources under the sea bottom,

production of electrical energy, aquaculture and many others. An increasing number of stakeholders causes that seas are becoming the arena of more and more intensive conflicts. The second common element connecting stakeholders is human capital with right qualifications and sea experience. This is becoming scarcer and scarcer. Shortages are becoming visible in maritime transport; the result of this could be a slower pace of development of new ways of exploiting sea resources. This situation is a growing concern, because in spite of the lack of reliable information about the market of sea based jobs and tendencies in its development, organisations and institutions on different levels undertake activities aiming to promote sea based jobs as attractive, offering versatile career paths. The purpose of the presented research in this article is to evaluate efficiency of initiatives undertaken to stop a decline in the number of seafarers.

2. THE ROLE OF MARITIME TRANSPORT IN THE CONTEMPORARY ECONOMY

The development of the world's trade exchange is determined, among others, by accessibility and effectiveness of transport. In the world's trade the most important role is played by maritime transport, the contribution of which in the international trade is estimated, depending on the source, as 80-90% (KOM(2009), p. 3; IMO, 2006, p. 2).

In the available statistics there is no data, thanks to which it would be possible to show separately the maritime transport's share in the world GDP. On the basis of the available, fragmentary information it is possible to assume that the contribution of maritime transport to the world GDP is 3.5 – 5% (IMO, 2006, p. 2; Stopford, 2009, p. 49; UNCTAD).

In the last four decades (1970 – 2013) the value of the world GDP expressed in American dollars (current prices) increased from 3000000 m USD to nearly 75000000 m USD (Figure 1). At the same time the value of the world's trade exchange went up from 320000 m do 18000000 m USD (calculated in current prices). The changes in the world GDP and the world's exchange were accompanied by changes in transport of cargo by sea. In the examined period it increased more than 3.5 times.

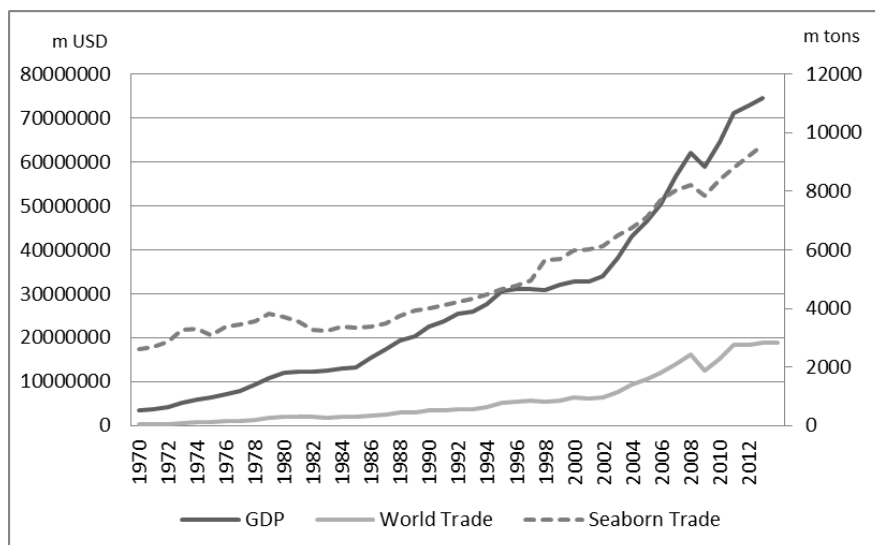


Figure 1. The value of world GDP, the value of global trade (m USD, current prices – left axe) and the volume of global freight by sea (m tons – right axe) in the years 1970-2013

Source: UNCTAD (2015), <http://unctad.org/en/pages/Statistics.aspx>, access 4.08.2015

The courses of characteristics illustrating the value of GDP, international trade and cargo transport show great convergence in the dynamics of their changes. The confirmation of this situation are correlation indicators between the examined variables (Table 1), estimated for the period 1970 – 2013 (44 random samples).

Table 1.

The correlation matrix

Marked correlation coefficients are significant $p < .05000$; $N=44$			
	GDP	International Trade	Seaborne Trade
GDP	1.000000	0.988298	0.982151
International Trade	0.988298	1.000000	0.981620
Seaborne Trade	0.982151	0.981620	1.000000

Source: author's calculations (Statistica ver.10)

The obtained results point out to strong, positive correlations among all the examined variables. They justify the statement that the condition of the world

economy and the demand for products brought from abroad are the highest determinants of the demand for transport services by sea.

Maritime transport, including deep sea shipping and short sea shipping, has the biggest contribution in handling the international trade of all the accessible branches of transport. An additional advantage is that maritime transport, contrary to the other branches of transport, can be both a substitute and a complementary service. It means that maritime transport can substitute, on some distances, land and air ways to carry cargo. The other way round is definitely less possible, due to at least two factors: natural (connected with carriage of cargo between the continents) and economical (relatively easy to obtain benefits of the economy of scale allow reducing transport costs more than in the other branches) (Corbett et. al., 2008, pp. 4 - 7).

The above presented data as well as interrelations among the world economy and the trade exchange, including the exchange by sea, make it possible to claim that similarly to money - maritime transport is indispensable for sustainable development of the world economy. The trade exchange is possible thanks to the increasingly modern and safe fleet of merchant vessels. Figure 2. shows changes in exploited merchant vessels over the period of the last 20 years.

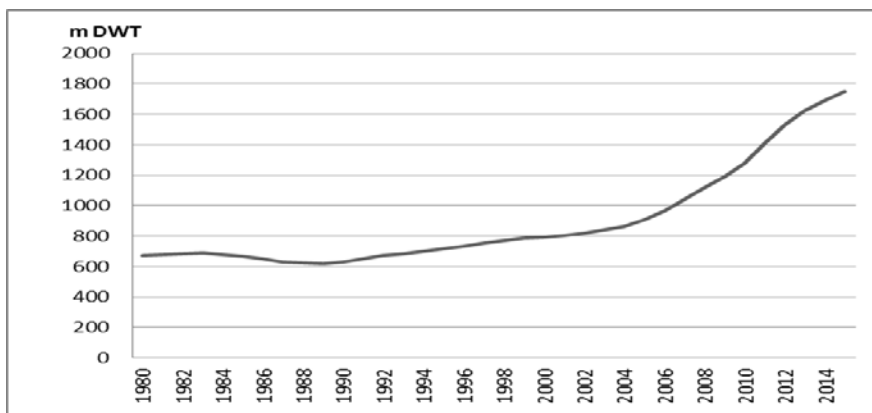


Figure 2. Total world fleet (m DWT)

Source: UNCTAD (2015), <http://unctad.org/en/pages/Statistics.aspx>, access 17.08.2015

Together with an increase in the cargo mass in the international trade there was a steady increase in the size of the fleet expressed by carriage capacity (on average 3% annual). The available statistic data concern a little shorter period – from the year 1980. Nevertheless, it is possible to notice that in as much as the changes in the world GDP influenced the volume of the international trade and the volume of cargo transported by sea, the carriage capacity only in the 1980s (1984-1989) decreased. In the other periods, when the situation of the world

economy was bad (1997, 1998, 2001, 2009), the size of the fleet increased at a clearly slower pace. In the whole examined period it increased more than twice.

In the light of the above presented data, from which it results that maritime transport, including the fleet of merchant vessels necessary for the world economy to operate well, increases, there appear a question about the sense of considerations concerning the significance of shipping for the contemporary economy. A great threat that can negatively affect maritime transport, which in turn can affect the world economy, is the problem of the insufficient number of seafarers. Table 2. presents prognoses concerning the number of seafarers (officers and ratings) needed and available on the market of sea based jobs.

Table 2.

Maritime labour market

	Demand				Supply	
	BIMCO /ISF	DREWRY Shipping Consultants *	Japan International Transport Institute	Japan Maritime Center	BIMCO /ISF	DREWRY Shipping Consultants *
2015						
Officers	720440	621200	460851	1458811	690199	606900
Ratings	803000	n. a.	671946		764000	n. a.
2020						
Officers	772198	639700	477208	1569148	764281	618000
Ratings	821000	n. a.	695795		791000	n. a.

Notes: * data for years 2014 and 2018, respectively

Source: EC (2011), p.33, Drewry (2014), p.1, Washizu, (2011), Japan Maritime Center (2013), p.2.

In the columns presenting the supply of seafarers there is no data coming from Japanese institutions. They claim that the supply of seafarers is so difficult to estimate and so changeable due to payment conditions, life situations, health and professional issues, etc. that there is no point in estimating it. Divergences among the values given by different institutions are considerable – JITI gives the data lower than the data of BIMCO by almost 40% and of Drewry by about 25%. So, are the prognoses accurate if the divergences are so large? Institutions, which decided to estimate both sides of the market of sea based jobs, are close in their predictions stating that the demand gap is going to increase. This is confirmed by organisations of entities that handle vessels operation – they report bigger and bigger problems connected with finding people with the right qualifications (Drewry (2012), Deloitte (2011), EC (2011), BCI (2009)).

2.1. The Significance of Shipping for the Economy of the European Union

Impacts caused by economic activity, especially when it creates elaborate supply chains can be divided on the basis of the criterion of a degree of the entity's engagement in a given activity. Generally, three channels of impact can be distinguished: direct, indirect and induced. Analysing impacts of activities of maritime transport enterprises, it is assumed that direct impact is produced by enterprises dealing with shipping. These are jobs and incomes of shipping enterprises. Indirect impact is produced by enterprises involved in supply chains indispensable for maritime transport. This impact is a result of the demand that shipping enterprises report for different types of products and services. These are jobs and incomes of suppliers of products and services for shipping enterprises. Induced impact is a result of the consumption demand reported by people employed in enterprises of maritime transport and enterprises from supply chains. It is a consequence of the demand reported by employees of enterprises directly and indirectly connected with shipping (Figure 3.) (Oxford Economics, 2015, pp. 4 - 5).

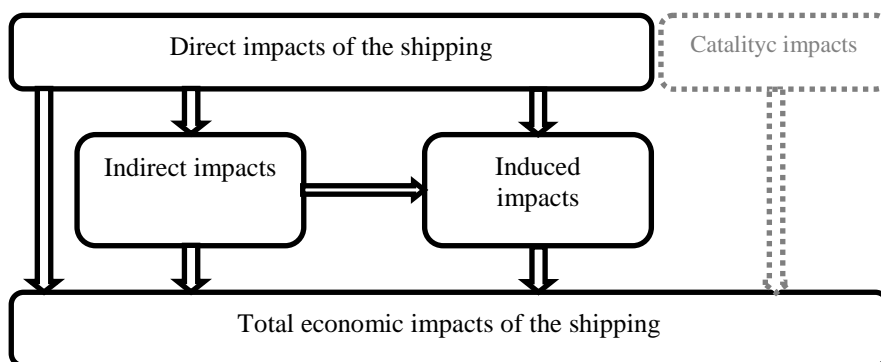


Figure 3. Total economic impacts of the shipping

Source: Oxford Economics (2015), p. 5; Sewell(2014), p. 5

In literature there is one more channel of impact of enterprise activity distinguished – this is catalytic impact also referred to as spin-off benefits. It is connected with improvement of effectiveness of economic activity – attracting, retaining and expanding economic activity as a result of enterprise's activity on a given territory (Sewell, 2014, p. 5 - 12). With regard to shipping enterprises, unlike the situation with seaports or airports - it is difficult to separate this impact unequivocally. Development of information technologies eliminated/reduced benefits of running business activity in the neighbourhood of shipping enterprises; in the present paper they will be omitted.

With regard to the European Union, maritime transport is the most important branch of transport used to handle the trade exchange. Maritime

transport operates 75 – 90% of the Union external trade and about 37 – 40% of the internal trade (*Making the World ...*, 2015; KOM(2009), p. 2).

Essential is the economic impact produced within maritime transport and thanks to it. In 2013 economic impacts amounted up to:

a) direct: gross value added contribution to GDP: 56 milliard € the same as in the previous year, employment: 615 000 (including 501 000 at sea), in comparison to the previous year generally the number of jobs increased by 4.2%, with regard to sea based jobs this increase was about 14%,

b) indirect: gross value added contribution to GDP: 61 milliard € an increase of 3.3% in comparison to the previous year, the number of jobs: 1 100 000, the same as in the previous year,

c) induced: gross value added contribution to GDP: 30 milliard € the same as in the previous year, the number of jobs: 516, 000), in comparison to the previous year the number of jobs decreased by 6.2% (Oxford Economics, 2015, pp. 25 – 35; Oxford Economics, 2014, pp. 3 - 6).

The multiple impact calculated on the basis of the above data, although similar in 2012 and 2013 (1 € value added generated in shipping, contributes to generating the value of 1.6 € in other branches) slightly increased from 2.589 in 2012 to 2.625 in 2013.

3. SEAS AS THE SUBJECT OF THE UNION REGULATIONS

Seas constitute an essential element of the European economy, not only with regard to economic aspects, but social aspects as well. They are exploited in many ways as: the way to transport people and goods, regulation of climate, a source of food, a source of energy and raw materials, a place of residence and recreation. Apart from positive aspects of the access to the sea, there also appear negative aspects, the scope, scale and influence of which are more and more experienced by citizens of Europe. The most important are: increasing congestion of routes around Europe, a rising level of waters (climatic changes), a wave of illegal emigrants from Africa and the Middle East.

Therefore, the EU undertook activities in 2006, starting from elaboration of the document “Green Paper”, which resulted in the development of an integrated maritime policy in 2007. An innovative solution laid out in the maritime policy is the approach to the issues concerning management of maritime areas, which consists in complex solutions taking into account all levels of decision-making with regard to horizontal and inter-sector planning. It means that planning should take into account all sectors connected with seas. Such an approach to the issue of maritime areas management will require development of

integrated maritime policies by member states (KOM(2006) pp. 2 - 5; KOM(2007), pp. 2 - 3).

To enable effective implementation of the activities so widely undertaken on different levels of management (region, country, European Union) and comprising many sectors, it is necessary to elaborate, implement and continuously enhance the following instruments: (1) maritime supervision (seafaring safety, protection of seas against pollution, safety of maritime borders of Europe), (2) maritime spatial planning (necessary spatial planning of deployment of economic activities against increasing competition in seas exploitation), (3) a rich and available source of data and information (creation of a complex and compatible system of collecting data) (KOM(2007), p.7).

The aims, in the realisation of which the integrated maritime policy is to help were grouped in five areas:

- maximising sustainable exploitation of seas and oceans – development/growth of coastal regions, maritime sectors;
- building a knowledge and innovations base for the maritime policy – expensive research, duplication of which is irrational;
- delivering the highest level of life in coastal regions (the number of population in coastal regions has considerably been increasing over the last ten years; in addition, coastal regions are tourist destinations for the majority of people in Europe – there appear problems with the economic development accompanied by simultaneous retention and improvement of the quality of both natural environment and life of inhabitants),
- promoting the leadership role of Europe within the international maritime economy (with regard to internal activities: encouraging member states to ratify the appropriate legal instruments, with regard to external activities: "sustainable scientific and commercial exploitation of the deep seas, protection of global marine biodiversity, improvement of maritime safety and security, working conditions, reduced ship pollution and the fight against illegal activities in international waters",
- popularisation of the maritime character of Europe – these are activities aiming at, among others, improving the image of sea based jobs, and "raising the visibility of the maritime character of Europe" (KOM(2007), p. 14).

3.1. Threats in the Development of Maritime Transport in Europe

European ship owners are the owners of 14,400 merchant vessels (30% of all exploited vessels), with deadweight capacity of over 579,000 thousand DWT (34% of the world's tonnage). Just over ¾ vessels belonging to European

ship owners are a foreign flag (Table 3). Only four countries (Croatia, Italy, Lithuania and Malta) operate most of their fleets under their national flag.

Registration of vessels under the flag of third countries results from the economic issues, first of all from: access to cheap capital, rich sources of cheap workforce, not a very rigorous attitude to the norms established on the international forum (KOM(2009) 8, p. 3).

Table 3.

Ownership of the European fleet, as of 1st January 2014 (ships>1000GT)

	Number of ships	DWT (thousand)	National flag (thousand DWT)	Foreign flag (thousand DWT)	Foreign flag (%)
Austria	7	50	0	50	100,0
Belgium	192	8114	3733	4381	54,0
Bulgaria	81	1279	254	1025	80,1
Croatia	112	3304	2235	1069	32,4
Cyprus	355	12716	6131	6585	51,8
Denmark	955	40504	13518	26986	66,6
Estonia	77	462	23	439	95,0
Finland	152	2039	971	1068	52,4
France	442	11798	4096	7702	65,3
Germany	3699	127238	15987	111251	87,4
Greece	3826	258484	70499	187985	72,7
Netherlands	1234	17203	6572	10631	61,8
Ireland	79	773	255	518	67,0
Italy	851	24610	18790	5820	23,6
Latvia	92	1227	48	1179	96,1
Lithuania	58	305	202	103	33,8
Luxembourg	77	1519	665	854	56,2
Malta	33	585	446	139	23,8
Poland	140	2803	43	2760	98,5
Portugal	54	940	124	816	86,8
Romania	94	1044	55	989	94,7
Slovenia	21	684	0	684	100,0
Spain	217	2206	692	1514	68,6
Sweden	339	6685	1311	5374	80,4
UK	1233	52821	8264	44557	84,4
UE total	14420	579393	154914	424479	73,3
World total	47601	1676853	-	-	-

Source: *Review of Maritime Transport(2014)*, pp. 33 - 37

If in Europe the costs of running shipping activity are less favourable than in the registers of third countries, it can lead with time to a total change of flags of the European fleets into foreign flags. The effects of such activities could have a severe influence on the whole maritime sector. Social dumping possible to

apply by ship owners on vessels outside Europe would result in redundancies of employees with sea experience, and the effect could be a loss of know-how. Due to perfect mobility of production factors involved in maritime transport enterprises, these enterprises with no difficulty could relocate their headquarters to territories outside Europe. The relocation of maritime transport enterprises overseas would definitely negatively affect other enterprises of the maritime sector, resulting in a reduction not only of direct economic impacts, but indirect and induced impacts as well.

Because of the above mentioned reasons the European Commission decided that: in the European Union the state aid not only should be retained, but in some cases improved, the European Union should aim at raising the quality of shipping, at the same time maintaining the conditions of fair competition among all entities participating in the international maritime transport (KOM(2009) 8, p. 4).

In the European Union the problem especially “dangerous” for development of maritime sectors is the more and more visible lack of qualified workers. “The growing shortage of professionals, officers and ratings entails the risk of losing the critical mass of human resources that sustains the competitiveness of the European maritime economy” (KOM(2009) 8, p. 4).

In the meanwhile the number of European officers is decreasing. Due to a growing gap also on the world’s scale a threat of shortages of qualified staff - not only in shipping, but in the whole maritime sector – is increasing.

3.2. Activities undertaken with the Maritime Policy to raise the number of Seafarers

With regard to threats the European maritime economy is facing, the European Commission recommended a set of activities, the aim of which is to raise attractiveness of jobs directly connected with seas. Sea based jobs are to be presented as jobs creating opportunities for development of skills, qualifications and social competences. Thanks to this, it is easy to determine paths in development of professional career and promotion. In turn, gaining unique experience while working at sea opens different possibilities of a job change, both within the maritime sector and outside it.

The second trend in activities increasing the number of people interested in sea based jobs are activities presenting the maritime sector, including seafaring, as a source of many inspiring and challenging places of work. Employing the best practices within promotional campaigns is to spur changes in the perception of the image of work at sea as dangerous and unattractive for citizens of the developed countries.

It will be necessary to support international organisations (mainly IMO, ILO), which undertake activities for fair treatment of seafarers. Ensuring the

appropriate protection of seafarers in the event of maritime accident, abandonment (seafarer and/or vessel), personal injury or death is essential because of two reasons. Firstly, because they are connected with the campaign to improve the image of seafaring; secondly, they aim at equalising the costs of seafarers' employment, which in the case of ship owners not fulfilling the obligations towards crews are definitely lower than in the case of honest ship owners.

The other proposals aiming to improve the conditions of work at sea can be outlined as: enhancing social conditions at a place of work and increasing the number of jobs, promoting information and communication technologies to improve health care at sea, personal communication of seafarers and distant learning, reducing excessive administrative burden of officers (KOM(2009) 8, p. 5).

4. EXAMING REASONS FOR UNDERTAKENING STUDIES IN POLISH MARITIME UNIVERSITIES

As in Europe the problem of a decreasing number of officers is getting more serious and its influence will be visible not only in seafaring, an essential question arises – how to encourage young people to choose a maritime career path?

Therefore, it is necessary to get to know what influences a decision to choose a maritime school, how important the environment is and how important - awareness gained from the earlier stages of education. This will enable constructing the appropriate tools to realise the maritime strategy on the Union and national level. Also the growing problem of shortages of maritime staff of the highest qualifications raises the question: can the activities laid out in the strategic documents on the Union level cause a greater interest in sea based jobs among young people?

To answer this question students of the first year of Gdynia Maritime University were surveyed (in February 2015). Students of only these specialisations were chosen, after graduation of which they acquire competences to work at sea. These were students of:

- Faculty of Navigation (field: Maritime Transport, a job title after graduating: maritime navigator), 114 students;
- Faculty of Marine Engineering (field: Mechanical Engineering and Machine Design, a job title after graduating: ship engineer) 154 students.

The choice of 1st year students was determined by the need to check their knowledge of the reality of life at sea, their reasons for undertaking studies, their ideas about advantages and costs of work at sea. Students of higher years will certainly answer such questions in a different way. With time they get

experienced with life at sea – through maritime practical trainings; moreover, studies at the university raise their awareness of the real conditions of life at sea.

Students were surveyed with a specially prepared questionnaire, which contained 19 questions (closed, semi-open and open). The survey was to be comprehensive, that is why there was no need to establish a method of sample selection. The possibility to survey all the students of the 1st year resulted from the fact that they have to attend both classes and lectures on a compulsory basis. It results from the regulations laid out in the Regulations Governing Studies at Gdynia Maritime University and the regulations of the STCW Convention.

In order to find out what made students choose a maritime field of studies, how conscious choice it was and what is the most important for young people in future life at sea, the following questions were asked:

1. How did they learn about studies at Gdynia Maritime University?
2. Who influenced their decision to study at GMU?
3. Are studies at GMU the first choice studies?
4. What reasons decided about their choice of studies?

Ad 1. Students were given a possibility to choose source/sources of information about the university from the following: (a) I searched myself the information about different universities, (b) I learned about the university from education fairs, (c) the university presented its educational offer in my secondary school, (d) I know about the university from acquaintances, who study here, (e) I know about the university from family members, who study or studied at GMU, (f) I read about the university on Internet forums. Another possibility was included in the answers – they could add other sources of information about the university (g). Students could choose more than one source of information.

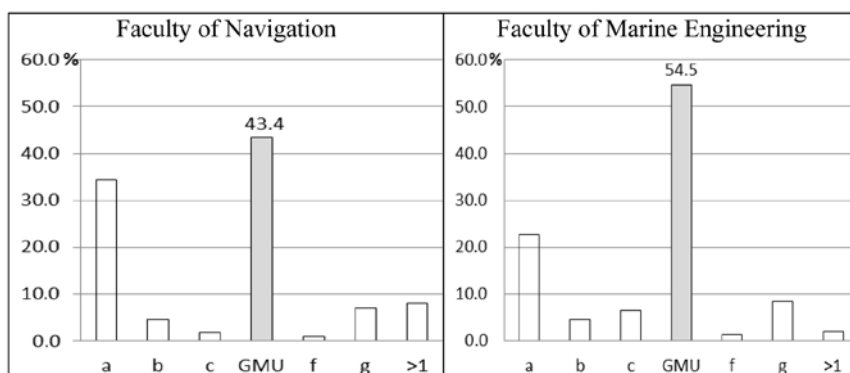


Figure 4. Sources of information about GMU

Source: author's calculations

Figure 4. presents a percentage of students indicating particular sources of information about studies at GMU. With regard to variants (d) and (e) – all indications in which such an answer appeared were summed. For students of both the faculties this was a dominant source of information. With regard to variant (g) versatile, often single indications appeared – a teacher, family/ acquaintances not connected with GMU, information about the university in media etc. Promotional activities undertaken by both the faculties bring about relatively small effects. 6.2% students of NF (Faculty of Navigation) and 11.0% students of MEF (Faculty of Marine Engineering) indicated as a source of information about the university – education fairs or the presentation of the university in their secondary school.

Ad 2. Answers to the question “who influenced your decision to choose the university” were to determine how wide is the group of stakeholders, who influenced a decision of future students to choose the university. 66% future navigators and 53% future engineers said that their decision about the studies at GMU was made by themselves and no one influenced them. In the other cases a big role was played by parents (if they pointed to one parent – definitely more often it was a father) and people from the circles of acquaintances (including these already studying at GMU).

Ad 3. The question if the chosen studies were the studies of the first choice, was posed only to check who undertakes studies on the examined faculties – people for whom GMU was the most important while making a decision about studies, or it was merely an alternative in case of a failure in some other university.

Students of navigation more often decided to study at GMU as the best thing for them. Only 16% respondents said they wanted to study in some other university. With regard to MEF students, as many as 25%, wanted to study in other universities. Students of both the faculties had different preferences about the university of the first choice and different reasons why they finally study at GMU. With regard to future navigators – they were interested first of all in studies in technical universities, on a smaller scale in military universities or other universities. The reasons they gave for not undertaking or not continuing studies there were: inappropriate health condition, inappropriate physical fitness (military universities), not so interesting classes and the lack of prospects after graduation (technical universities, universities). Students of Faculty of Marine Engineering for whom GMU was an alternative university, generally chose first technical and military universities. The reasons for not undertaking studies/ resignation from studies in military universities were the same as in the case of navigators, whereas they resigned from technical universities because of too high a level of education.

Ad 4. Students could choose more than one answer to the question about the reasons for undertaking studies at GMU. As the most important, irrespectively of the faculty, the following answers were chosen:

- a conviction about a secure job after graduation from GMU,

- a conviction about high earnings after graduation from GMU,
- a conviction about opportunities to visit the world after graduation from GMU (Fig.5).

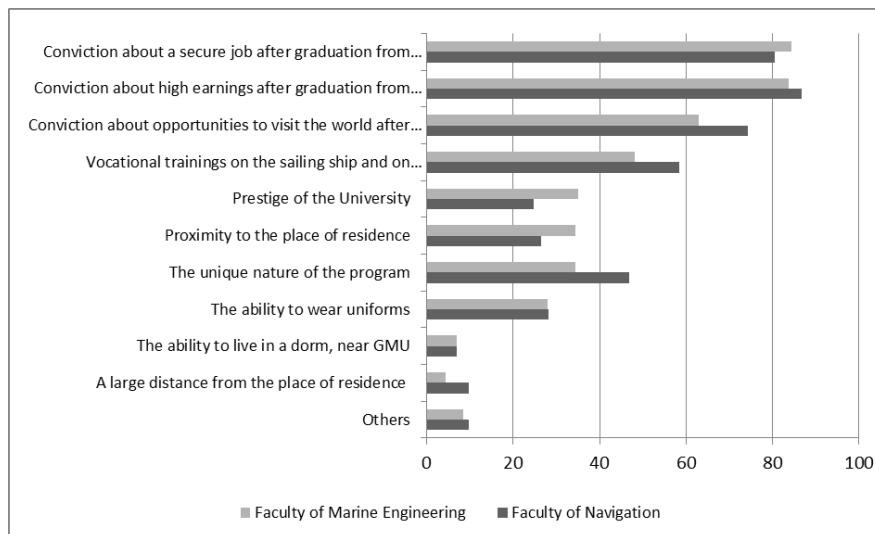


Figure 5. The reasons for undertaking studies at GMU

Source: author's calculations

Students of both the faculties differed slightly with respect to importance they assigned to particular reasons. Differences also appeared in the answer "others". Students having a possibility to give their own answer first of all wrote:

- passion and family tradition (NF),
- an interesting job, work at sea, an opportunity to live in Gdynia during studies (MEF).

The results obtained during the survey lead to the following conclusions:

- the university does not actively engage in promotional activities, promotion is either limited (from the point of view of territories, merits) or ineffective,
- an information campaign should also target other groups than youth at secondary schools – a decision to study is often made together with parents,
- students choose the university having the conviction about a secure job, high earnings and opportunities to visit the world after graduating,
- for respondents studies at GMU as well as a future job are perceived as prestigious – more than 25% students gave a reason for the choice of studies - a possibility to wear a uniform during studies.

5. CONCLUSIONS

Maritime transport due to limited possibilities of being substituted by other modes of transport conditions, but is not sufficient for, efficient functioning of the world economy. For the last decade of the 20th century a dynamic growth of merchant fleet has been observed (expressed both by numbers and deadweight). The phenomenon has been accompanied by a risk of the lack of the appropriate number of qualified crews. The scale of this phenomenon is difficult to estimate – because of the characteristics of the market of sea based jobs and its global range, institutions examining demand and supply give the data in different perspectives and their values differ from one institution to another considerably (differences are up to 40%).

Shipping is an important element of the economy because of its basic function. Besides its usefulness resulting from its essence, it generates economic indirect and induced impacts. In Europe they are higher than direct impacts.

The European Commission sees the potential of maritime transport and other traditional maritime branches as well as possibilities of developing new ways of exploitation. With regard to increasing threats for the community and the European economy the Commission elaborated a number of strategic documents, the aim of which, among others, is to increase the number of seafarers through a campaign promoting sea based jobs and to enhance considerably the conditions of work and life at sea.

The survey of GMU students proved that the knowledge about opportunities to gain qualifications for sea based jobs is not widely spread. The main reasons are: a secure job, high pay and opportunities to visit the world (in students' opinion). It seems that because of such formulated expectations of young people towards studies – the appropriate information campaign could favour recruitment of students, for whom the university would constitute the beginning to a career path at sea and not only a substitute of some other technical university.

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