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Dilemmas of Modern Economy and Business

edited by
Jelena Stankevičienė
Marek Szarucki



Cracow University of Economics
Faculty of Economics and International Relations
Centre for Strategic and International Entrepreneurship

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Dilemmas of Modern Economy and Business

edited by

Jelena Stankevičienė & Marek Szarucki

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Editorial: Dilemmas of Modern Economy and Business

Various dilemmas concerning modern economy and business have been in the focus of scientific discussion in recent years (Klich, 2013; Renko & Knezevic, 2013; Szarucki, 2013; Agrawal & Gugnani, 2014; Pardhasaradhi & Grace, 2015). In modern economy, not only researches but corporations face complex economic and business dilemmas in their daily routine. The Joint Research Centre of the European Commission addresses key economic challenges by stimulating innovations, sustainability policies, social and environmental responsibilities. These challenges require the mobilization of significant resources by science, innovation and regional policy makers and scientific communities across Europe (EUA, 2014). Broader scientific discussions are crucial for the success of the Europe 2020 strategy for smart, sustainable and inclusive growth.

According to the Global Risks Report 2015, the biggest threat to world stability in the next 10 years arise from the four most serious economic risks. These are high structural unemployment or underemployment, energy price shock, critical information infrastructure breakdown and fiscal crises. We continuously agree that innovation is critical to global prosperity (WEF, 2015). Currently, the internationalisation of family businesses is an increasingly important research area. Substantial numbers of FBs are forced to expand into foreign markets in order to survive and grow in the competitive environment (Daszkiewicz & Wach, 2014). The roles of business angels are especially important taken both decreasing the levels of formal venture capital investment and growing average amount of individual deals. Angel investors are the key players in generating high-growth companies, essential to regional economic development. As a result, they have attracted the attention of policy makers (Rostamzadeh *et. al.*, 2014).

Consequently, this issue of EBER concentrates on the current dilemmas of modern economy and business, particularly dealing with the Baltic States, Slovenia and Poland. Five out of eight articles published in this issue are research papers, two are conceptual papers, while one is a literature review.

This issue starts with three papers investigating the emergence and determinants of born global enterprises, comparing theories of firm internationalisation as well as some specific strategies of enterprise internationalisation. Second of the issue includes five articles dealing with issues related to social entrepreneurship, social and environmental initiatives, decision-making in business negotiations, public innovation assessment and sustainability of pension systems.

First paper, *Entrepreneur-related Constructs Explaining the Emergence of Born Global Firms: A Systematic Literature Review*, written by Elena Pawęta presents the results of an extensive literature investigation aimed at systematising the knowledge on entrepreneur-related factors influencing the growth of born global enterprises. The author attempts at

developing a conceptual framework, which can serve as basis for further growth of international entrepreneurship theory and research.

Second paper, *Incremental versus Rapid Internationalisation of Firms: Results of Exploratory Investigation from Poland*, prepared by Krzysztof Wach aims at exploring and discussing the speed of enterprises' internationalisation within the lenses of two main theoretical perspectives. The author has investigated the research problem on the example of 355 enterprises from Poland concentrating on two main elements: strategic thinking and familiness.

Third article, *Internationalisation at Home: Exploiting the Potential of the Non-nationals' and Expatriates' Community*, by Andreja Jaklič and Paraskevi Karageorgu investigates first-time internationalisation strategy of an organisation without crossing the country borders while dealing with non-nationals in its home market. According to the results the non-nationals' and expatriates' community, as frequently neglected market segment, has a positive influence on enterprise performance. Moreover its growing potential in some European cities was highlighted.

Social Problems as Sources of Opportunity: Antecedents of Social Entrepreneurship Opportunities, by Agnieszka Żur is a conceptual one, where the author tries to find answers to several important questions related to theory of social entrepreneurship. The paper concentrates on the opportunity-based view of social entrepreneurship with regard to its application to explore social entrepreneurship activity.

Children-Engaging Social and Environmental Initiatives as Determinants of Corporate Reputation by Ingrida Šmaižienė aims at exploring children-engaging social and green initiatives as determinants of corporate reputation. The outcomes of the conducted research have proven that that consumers are likely to agree that enterprises that utilise children-involving corporate social responsibility initiatives lead to the development of children as responsible citizens. Moreover, engaging children in corporate social and environmental activities can be perceived as a determinant of corporate reputational risk and not only as an act of being a good citizen.

The Use of Game Theory for Making Rational Decisions in Business Negotiations by Kęstutis Peleckis presents a critical literature review on game theory and its applicability for rational decision-making in negotiations, aiming at a model proposition supporting strategic decisions in negotiations. Moreover it also demonstrates a model which combines the game theory approach with heuristic algorithms in order to better reflect the specifics of negotiations. This tool seems to be useful for better understanding of the strategic management of negotiating processes and can be applied to support strategic decision making in negotiations.

Public Innovation Support Index for Impact Assessment in the European Economic Area by Mantas Vilys, Artūras Jakubavičius and Eigirdas Žemaitis, deals with exploring conceptual frameworks for evaluation of the influence of public innovation support systems for innovations' development in the European Economic Area. Based on the research results, the authors have proposed their own original model for the assessment of public innovation support system. The findings confirm the utility of the suggested model for the description and impact assessment of public innovation support systems in the European Economic Area.

The final paper, *Sustainability of Pension Systems in the Baltic States*, prepared by Olga Rajevska identifies how the concept of sustainability is ensured in the pension systems, as well as its implications to the performance of pension schemes in Estonia, Latvia and Lithuania. This empirical paper presents the impact of differences at policy formulation stage and in the very design of pension schemes on pension system sustainability in countries with a very similar initial conditions and socio-economic environment.

We do believe that in this issue everyone can find something of interest to his or her scientific curiosity that would be worth of further exploration. Moreover, we are glad to inform our current and potential authors about the success of our Journal. It was highly rated by the Polish Ministry of Science and Higher Education during the assessment of scientific journals, which was published on 23 December 2015. According to the assessment *Entrepreneurial Business and Economic Review* is now worth 12 points (on the scale from 1 to 15) with regard to the Ministry regulations. We hope that this excellent evaluation will serve as an additional stimuli and inspiration for authors to submit original high quality scientific publications.

Jelena Stankevičienė
Marek Szarucki
Issue Thematic Editors

REFERENCES

- Agrawal, S., & Gugnani, R. (2014). Creating successful business model: Lessons for social entrepreneurship. *International Journal of Entrepreneurship and Innovation Management*, 18(5-6), 438-445.
- Daszkiewicz, N., & Wach, K. (2014). Motives for going international and entry modes of family firms in Poland. *Journal of Intercultural Management*, 6(2), 5-18.
- European University Association (EUA). (2014). Report on Joint EUA-REGIO/JRC Smart Specialisation Platform Expert Workshop: The Role of Universities In Smart Specialisation Strategies, Brussels, Belgium. Retrieved on December 22, 2015 from http://www.eua.be/Libraries/publication/EUA_Seville_Report_web.pdf?sfvrsn=2
- Klich, J. (2013). Editorial: Modern Challenges for International Business in Europe. *Entrepreneurial Business and Economics Review*, 1(2), 5-6.
- Pardhasaradhi, R., & Grace (2015). Contemporary business challenges – Strategies for global competitiveness. *International Journal of Applied Business and Economic Research*, 13(3), 1005-1013.
- Rostamzadeh, R., Ismail, K., & Zavadskas, E.K. (2014). Multi criteria decision making for assisting business angels in investments. *Technological and Economic Development of Economy*, 20(4), 696-720.
- Renko, S., & Knezevic, B. (Eds.). (2013). *Challenges for the Trade of Central and Southeast Europe* (International Business and Management, Volume 29), Bingley: Emerald Group Publishing Limited.
- Szarucki, M. (2013). Editorial: Modern Challenges for Business and Economy in CEE Countries. *Entrepreneurial Business and Economics Review*, 1(4), 5-6.
- World Economic Forum (WEF). (2015). *Global Risks 2015*, 10th Edition. REF: 090115.

Entrepreneur-related Constructs Explaining the Emergence of Born Global Firms: A Systematic Literature Review

Elena Pawęta

ABSTRACT

Objective: The paper is aimed at structuring entrepreneur-related constructs and building a conceptual framework that can serve as a foundation for future international entrepreneurship research and theory building.

Research Design & Methods: The author conducted the systematic literature review of 94 empirical studies and conceptual papers on the entrepreneur-related determinants of early internationalisation in the international management journals in the years 1966 – 2015.

Findings: This article discusses and groups the existing knowledge on entrepreneur-related determinants of born globals successful international performance. The major theoretical contribution of the study is the conceptual framework of the main entrepreneur-level determinants of rapid internationalisation.

Implications & Recommendations: The results of the study are exploratory and there is a need in validating the theoretical framework through an advanced quantitative study. Future research might try to integrate the reviewed entrepreneur-related constructs with organisational characteristics and external characteristics which determine born globals emergence.

Contribution & Value Added: This paper provides the conceptual framework that groups entrepreneur-related constructs into 6 main categories which can enrich future international entrepreneurship research.

Article type: literature review

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INTRODUCTION

Research on international business in the 20th century has been mostly focused on large multinational companies. Management of small and medium-sized enterprises (SMEs) and venture creation was rather the topic of interest for entrepreneurship scholars (McDougall & Oviatt, 2000). However, in the end of 20th century, the research borders between international business and entrepreneurship started to vanish. Due to changing global business environment – more efficient communication technology and transportation, decrease in governmental protectionism and increasing opportunities to get international experience – it became less costly to conduct business activities in different countries. This contributed to the emergence of the international entrepreneurship phenomenon (McDougall & Oviatt, 2000; Zahra & George, 2002).

International entrepreneurship concept, which combines elements of international business theory and entrepreneurship theory, is devoted to the new ways of firms' internationalisation. The traditional stage model of internationalisation (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977) understood it as a slow process with several consecutive stages. However, new competitive environment, empowered by globalisation and integration processes, showed that stage theory cannot be applied anymore and new models are needed to explain the way SMEs internationalise. Starting from the early 1990s studies on the theory of international entrepreneurship focused on SMEs which enter international markets immediately after their emergence (McDougall, 1989; Rennie, 1993; Oviatt & McDougall, 1994). Those companies, called *born globals* (Knight & Cavusgil, 1996; Madsen & Servais, 1997) or *international new ventures* (McDougall *et al.*, 1994) do not use traditional incremental methods of exporting and begin to export from the first days of their existence.

The researchers have been trying to explain the key drivers of international expansion that are key for born global companies (Knight, 2000; Zahra & George, 2002). Most of the studies show the combination of external factors, internal factors and factors related to the entrepreneur who pushes companies to go global (Zahra & George, 2002). External factors are mainly associated with the market characteristics, as sectoral or regional export culture, international trade incentives or demand characteristics. Internal, organisational reasons of going international are niche products, global strategy and resource availability. Entrepreneur-related reasons, however, are found to be fundamental in the internationalisation of a company. Those reasons are usually associated with: (1) capabilities and aspirations of an entrepreneur before starting the business (Covin & Slevin, 1989; Knight, 2000; Andersson & Wictor, 2003) or (2) with entrepreneur's way of thinking and making decisions in the process of internationalisation (Harms & Schiele, 2012; Sarasvathy *et al.*, 2014).

Those entrepreneur-related constructs are often overlapping and often it is difficult to distinguish among them, in consequence there are also some confusions within the international entrepreneurship literature. Therefore, there is a need for structuring entrepreneur-related constructs and building an integrative framework that could serve as a foundation for future international entrepreneurship research.

This paper aims to analyse and systematise the existing knowledge on the entrepreneur-related determinants of successful international performance of born global companies through the systematic literature review of empirical studies in the international management journals in the years 1966 – 2015. The following section describes methodology used for conducting the research. The next sections present analysis and findings - key constructs emerging in the literature and proposition of a theoretical framework. Finally, conclusions and directions for the future research are presented.

MATERIAL AND METHODS

The systematic literature review was carried out in order to identify the current state of knowledge on the main entrepreneur-related factors which influence rapid internationalisation. It was carried out through a systematic analysis of 94 articles mostly from the leading scientific journals, but also from regional journals, monograph chapters and conference proceedings. The articles reviewed were published in the years 1966-2015. However, the majority of them (73) come from the 21st century. A three-stage procedure was used to select the articles:

1. using online bibliographic database *Web of Science* which provides access to the main international scientific journals in the fields of social sciences, art and humanities (the following keywords in different combinations were used for the search: “born global”, “internationalisation”, “determinants of internationalisation”, “entrepreneurial orientation”, “effectuation”);
2. analysing references of the articles found, with a special regard to literature reviews and conceptual papers bibliography;
3. screening the articles in order to access their relevance to the research and select the final sample.

After the first two stages of research, 132 articles on internationalisation were identified. Papers reviewed ranged from the general conceptual papers concerning international marketing and international entrepreneurship to specific publication analysing a certain industry or a certain region. However, after the thorough examination, 38 of them were eliminated from the list as they were not relevant for the aims of this research. The remaining 94 articles were included into the final sample for the systematic literature review. They could be categorised into two main groups (with the dominance of the first one):

- empirical research on internationalisation of SMEs, especially with the focus on the entrepreneur-related determinants of internationalisation;
- conceptual papers or literature reviews which have an important contribution to the development of the international entrepreneurship science

The selected articles were published in 41 scientific journals, conference proceedings or monographs. Table 1 shows the most represented journals in the conducted review - most of the articles reviewed belong to the leading scientific management journals like *Journal of International Business Studies* (11 articles), *Journal of International Marketing* (11 articles), *Journal of International Entrepreneurship* (8 articles), *Journal of World Business* (7 articles), *International Business Review* (7 articles).

The review of the internationalisation literature was aimed at determining the topic and main objectives of the research, the research methodology adopted, the country of origin of the study and the key findings. *Appendix 1* contains a sample of works on internationalisation from the past decades starting from acknowledged article by Vernon (1966) and a key work from the Uppsala University (Johanson & Vahlne, 1977). The process of reviewing and analysing was hindered by the diversity of writing and publishing styles, which can be observed in the articles from different timespans and different journals.

Table 1. The list of the most represented journals in literature review

Journal	Number of articles
Journal of International Business Studies	11
Journal of International Marketing	11
Journal of International Entrepreneurship	8
Journal of World Business	7
International Business Review	7
Academy of Management Journal	4
International Marketing Review	4
Entrepreneurship: Theory and Practice	3
Strategic Management Journal	3
Journal of Business Venturing	2
Management Science	2
Small Business Economics	2
Management International Review	2

Source: own study.

Main methodological aspects and key findings of the articles selected are presented in *Appendix 1*. It reveals the following information on the reviewed papers:

1. Authors of the article and the year of publication;
2. Sample characteristics – number of the companies, industry in which they operate, size of firms analysed;
3. Country of origin of the study;
4. Methodology used in the study – qualitative, quantitative, mixed, literature review or conceptual paper;
5. Key findings in terms of entrepreneur-related characteristics which determine rapid internationalisation or related topics.

The main constructs which emerged from the literature review are presented and discussed in the next section.

FINDINGS

The systematic literature review based on the presented methodology revealed that the topic of individual level factors influencing internationalisation is widely discussed in the international business literature. The research methodologies used, sample sizes and context of the analysis depicted in Figure 1 highlight balance within the international entrepreneurship research methods – there are 27 qualitative studies, 32 quantitative studies,

21 conceptual papers, 9 papers using mixed research methods (qualitative and quantitative) and 5 literature reviews. Quantitative papers dominate in the internationalisation literature, although qualitative research methods, conceptual papers and literature reviews are also well represented. Empirical studies however do not tend to use a longitudinal cross-cultural approach, but focus on a specific region or specific industry and analysis tends to be short-term. The countries of origin of the studies differ significantly, what indicates the widespread research on rapid internationalisation. Nevertheless, the majority of papers come from North America and the Nordic Countries.

Analysis of entrepreneur-related constructs within the internationalisation process has revealed several research fields, which are partially overlapping. The main constructs relevant to the topic reviewed are: (1) innovation and technology orientation, (2) entrepreneurial/managerial knowledge, (3) entrepreneurial orientation, (4) effectuation logic, (5) international networks and (6) dynamic capabilities. Table 2 demonstrates the meaning of those constructs and their application in prior studies.

Innovation and technology

Among the key factors determining internationalisation, innovation and technology orientation is often observed. In one of the early empirical studies on born global firms, Rennie (1993) noticed that almost half of the surveyed companies ranked technology as their most critical lever. There is an empirical evidence that in response to globalisation SMEs tend to put greater emphasis on acquiring technology in order to prepare in advance before entering foreign markets (Knight, 2000; Knight & Cavusgil, 2004). Some studies (Jones, 2001; Luostarinen & Gabrielsson, 2004) find that although managers of born global companies are young and inexperienced when it comes to international business, they are often technologically competent. Especially, it is the case for high-technology companies or firms from IT sector.

Entrepreneurial and managerial knowledge

Born global researchers pay much attention to the international experience and prior knowledge of an entrepreneur. There is some evidence that born global entrepreneur's international living and work experience and his or her education are the factors which push them towards global markets (Madsen & Servais, 1997; Chetty & Campbell-Hunt, 2004). It is explained by the fact that prior knowledge and work experience reduce the psychic distance to global markets and minimize uncertainty. Chetty & Campbell-Hunt (2004) even hypothesize that present-day managers of born global firms are better educated than the generation of managers in 1977 when the stage internationalisation model was presented. Prior international experience of an entrepreneur plays an important role in increasing the firm's speed of learning and internationalisation (Oviatt & McDougall, 1997).

Researchers (Sapienza *et al.*, 2006; Brennan & Garvey, 2009) suggest that the managers' previous international experience influences the outcomes of internationalisation because it may substitute for the lack of organisational experience with internationalisation. They state that internationalisation knowledge is already accumulated in the company through individual entrepreneurs who found the company.

Entrepreneurial orientation

Entrepreneurial orientation construct is associated with a strong leader who initiates

Table 1. Entrepreneur-related constructs in the prior studies and findings on early internationalisation

Construct	Meaning	Supporting references
Innovation and technology	An access to the unique technology or innovative approach to organizational processes push entrepreneur towards global markets.	Vernon (1966); Rennie (1993); Preece et al. (1998); Knight (2000); Crick & Jones (2000); Chetty & Campbell-Hunt (2004); Bell & Crick (2004); Laanti et al. (2007); Freeman et al. (2006); Fernhaber et al. (2007)
Entrepreneurial/managerial knowledge	Knowledge intensity in the specific industry, international experience, knowledge about foreign markets and internationalisation knowledge accumulation influence the pace and methods of company's internationalisation.	Johanson & Vahlne (1977); Luostarinen (1979); Zahra et al. (2000); Eriksson et al. (2000); Autio et al. (2000); Sharma & Blomstermo (2003); Knight & Cavusgil (2004); Prashantham & Berry (2004); Zucchella et al. (2007); Brennan & Garvey (2009); Zhang et al. (2009); Pellegrino & McNaughton (2015)
Entrepreneurial orientation	Entrepreneurial orientation is an approach combining innovativeness, proactiveness and risk-taking. It encourages experimentation, supporting new ideas, anticipating future needs, pioneering in new products/ methods and taking risks.	Covin & Slevin (1989); McAuley, A. 1999; Knight (2000); Andersson & Wictor (2003); Knight & Cavusgil (2004); Jones & Coviello (2005); Jantunen et al. (2005); Freeman & Cavusgil (2007); Rutihinda (2008); Kuivalainen et al. (2012); Roudini & Osman (2012)
Effectuation logic	Effectuation is a decision-making behaviour, which is employed under uncertainty, when future is unpredictable and goals are not clearly known. Effectual thinking includes considering the available means, keeping in mind what is affordable to lose, then seeking for strategic partnerships and exploiting contingencies to control the unpredictable future.	Chandra et al. (2009); Bhowmick (2008); Mainela & Puhakka (2008); Schweizer et al. (2010); Andersson (2011); Harms & Schiele (2012); Sarasvathy et al. (2014); Gabrielsson & Gabrielsson (2013); Galkina & Chetty (2015)
International networks	Personal international networks of an entrepreneur help to find opportunities and to internationalise. Dealing with network partners for a company helps to supplement internal capabilities, for example to recruit workers with previous experience in the industry.	Forsgren (1989); Johanson & Vahlne (1990); Coviello & Munro (1997); Keeble et al. (1998); McAuley (1999); Andersson & Wictor (2003); Sharma & Blomstermo (2003); Moen et al. (2004); Andersson (2004); Freeman et al. (2006); Loane (2007); Laanti et al. (2007); Rutihinda (2008); Gabrielsson et al. (2008); Chandra et al. (2009); Zhang et al. (2009); Crick & Crick (2014); Laurell et al. (2013)
Dynamic capabilities	Dynamic capabilities are the strategic routines by which ventures achieve new resources configurations. They are the drivers behind the creation of new resources and new sources of competitive advantage.	Madsen & Servais (1997); Eisenhardt & Martin (2000); Lu & Beamish (2001); King & Tucci (2002); Jantunen et al. (2005); Sapienza et al. (2006); Gassmann & Keupp (2007); Laanti et al. (2007); Weerawardena et al. (2007); Pranger & Verdier (2011)

Source: own study.

innovativeness, proactiveness and risk taking (Knight, 2000). Firms with an entrepreneurial orientation pioneer in innovative products/ markets, engage in risky ventures and are characterised by decision action. Furthermore, according to Lumpkin and Dess (1996), such companies also combine autonomy and competitive aggressiveness, where autonomy means independent action of a person or team in giving birth to an idea, and competitive aggressiveness refers to firm's tendency to outperform in the marketplace and intensively challenge competitors.

Studies on rapid internationalisation agree that born global firms tend to possess certain characteristics as management team with "unusual constellation of competencies" (McDougall *et al.*, 1994). It has been supported by empirical research that entrepreneurial orientation has a significant effect on international performance of companies. Entrepreneurial orientation is associated with quality leadership in born global companies (Knight, 2000; Jantunen *et al.*, 2005; Kuivalainen *et al.*, 2002). Researchers agree that possession of an entrepreneurial orientation is important in the development of company's strategy. Jantunen *et al.* (2005) state that the issue of entrepreneurial orientation within the internationalisation context is a relevant and under-researched topic, and suggest that entrepreneurial orientation might have a positive effect on international performance.

Effectuation logic

There are several studies which connect international orientation of companies to the effectual way of thinking (Bhowmick, 2008; Mainela & Puhakka, 2008; Schweizer, Vahlne, & Johansson, 2010; Sarasvathy *et al.*, 2014; Galkina & Chetty, 2015). A theory of effectuation, entrepreneurial way of thinking and making decisions under uncertainty, was first introduced in 2001 by Saras Sarasvathy. She described two distinct types of logic used in decision-making processes – causation and effectuation. Causation refers to the typical managerial rational behaviour, where decisions are based on searching the ways to reach a distinct goal. Causation consists of starting with a given goal, then focusing on expected returns and competitive analysis and finally assembling means to achieve the given goal. Effectuation includes a set of decision-making behaviours, which are employed in the situations of uncertainty, when future is unpredictable, goals are not clearly known and there is no independent environment that serves as the ultimate selection mechanism. Effectual thinking includes considering the available means, keeping in mind what is affordable to lose, then seeking for strategic partnerships and exploiting contingencies to control the unpredictable future (Sarasvathy, 2001). According to Sarasvathy, effectual thinking is the prevailing logic among expert entrepreneurs in uncertain environments. Rapid internationalisation of born global companies is usually conducted in a highly uncertain environment for a novice entrepreneur.

The first studies which applied effectuation theory in international entrepreneurship research were Andersson (2011) and Harms and Schiele (2012). They state that internationalisation is basically a process of decision-making under uncertainty, therefore they claim that entrepreneurs tend to apply effectuation rather than causation. Authors agree that effectuation should be included in the future research on born globals.

International networks

Network approach suggests that traditional internationalisation models are no longer applicable to internationalised markets, where firms interact with international actors within their networks. Companies develop relationships and create strategic alliances in order to

exploit and enhance their own resources and to gain benefits from the resources of other firms within their network (Laanti *et al.*, 2007). Therefore, born globals have the opportunity to globalise their activities without significant human or financial resources, as networks allow them to achieve access to complementary resources in many areas like R&D, technology, production, marketing and distribution. Sharma and Blomstermo (2003) state that the selection of foreign market entry for born global firms is based on their existing knowledge and on the knowledge supplied by their network ties. They suggest that some firms establish strong ties with internationally active firms and consequently start internationalisation processes despite substantial cultural distance to the target market.

Dynamic capabilities

Dynamic capabilities notion has evolved from the resource-based view (Barney, 1991; Nelson, 1991) and is associated with the firm's processes that use resources, for example the processes which integrate, reconfigure, relocate resources, which eventually might create market change (Eisenhardt & Martin, 2000). Prange and Verdier (2011) propose to divide dynamic capabilities into two groups – exploitative and explorative, where exploitation refers to control, certainty, risk-reduction, while exploration corresponds to discovery, risk-taking, experimentation, flexibility and innovation. They state that both types of capabilities are applicable to internationalisation, however exploitative capabilities correspond more to the incremental internationalisation models, whereas explorative capabilities correspond to the accelerated foreign market entry. This distinction bears resemblance to the effectuation-causation model proposed by Sarasvathy (2001). Sapienza *et al.* (2006) argue that the earlier a firm internationalises, the more deeply embedded its dynamic capability for exploiting opportunities will be. They justify it by the fact that early exposure to internationalisation creates an imprint for adaptability to uncertain environments and a receptivity for constant change.

DISCUSSION AND CONCEPTUAL FRAMEWORK DEVELOPMENT

The above analysis leads to the development of conceptual framework on the entrepreneurial-related factors of rapid internationalisation of born global firms. In this framework the individual-level constructs are divided into two categories – those which constitute the potential of an entrepreneur before starting a born global firm (innovation and technology, entrepreneurial/ managerial knowledge, international networks), and those which reflect the logic of an entrepreneur, his decision-making schemes throughout the internationalisation process (dynamic capabilities, entrepreneurial orientation, effectuation logic).

Entrepreneurial knowledge and innovation and technology orientation are the constructs which appear in many studies on born global firms and seem to be indispensable to born global entrepreneurs. Entrepreneur's education, prior work experience, international living experience reduce the psychic distance between local and international markets (Madsen & Servais, 1997; Oviatt & McDougall, 1997). It allows entrepreneurs to see the whole world as a market place and gives them a global vision. Innovation and technology orientation is a construct often associated with born global entrepreneurs (Rennie, 1993; Knight & Cavusgil, 2004), as it allows them to operate in highly internationalised markets (IT, high-technology industries) or with more traditional industries as it enables

them to take advantage of digital sales and distribution opportunities, modern communication tools or the latest technological advances. Using their prior knowledge and technological orientation, born global entrepreneurs use their personal international networks for entering foreign markets without substantial human or financial resources.

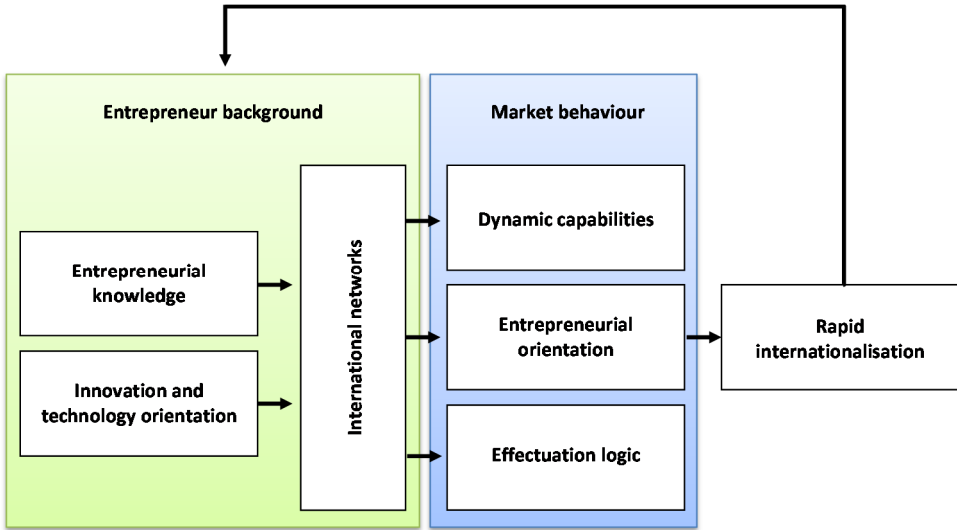


Figure 1. Entrepreneur-related factors affecting rapid internationalisation

Source: own study.

The second group of constructs is related to the way of thinking of an entrepreneur, his or her behaviour and decision making models. The constructs most often mentioned in the literature are dynamic capabilities, entrepreneurial orientation and effectuation logic. It seems that there is an overlap between these concepts in the literature on international entrepreneurship. Indeed, there are common features to those constructs. All three take into consideration proactiveness of an entrepreneur and constant searching for new opportunities. However, each of them has a different meaning – dynamic capabilities notion is grounded in the resource-based view, entrepreneurial orientation is a firm-level construct originating from entrepreneurship research, and effectuation logic is an entrepreneurial way of thinking and making decisions. As such these constructs describe the behaviour of a born-global firm from different perspectives.

There is an evidence that rapid internationalisation increases a speed of firm’s learning and gaining new market knowledge (Oviatt & McDougall, 1997; Chetty & Campbell-Hunt, 2004). The framework shows that after rapid internationalisation born global firms gain additional entrepreneurial and technological knowledge and access to new international network chains. This process allows to search for new market opportunities and therefore creates new possibilities for born global entrepreneurs.

Emergence of born global companies cannot be explained solely by the entrepreneur-related constructs presented in Figure 2. Apart from entrepreneur characteristics, rapid internationalisation may be explained by a combination of external and internal factors (Pawęta, 2013). External factors are usually connected with sectoral, regional or national

export culture, specific demand characteristics or foreign trade facilitators (Zahra & George, 2002). Internal determinants of internationalisation are connected with possessing unique products or services which have potential of gaining worldwide acceptance and human or financial resources availability (Cavusgil & Knight, 2009). In order to explain the rapid internationalisation phenomenon, the conceptual framework presented should be extended and include the above mentioned external and firm-level factors.

CONCLUSIONS

Multiple studies focus on determinants of internationalisation of born globals, firms which enter international markets immediately after their emergence. These determinants are based on constructs that overlap one another. This makes it more difficult to correctly interpret and compare the results of different studies on international entrepreneurship.

This paper presents a literature review of earlier research on born global companies and suggests a theoretical framework of entrepreneur-related constructs which are considered as the determinants of rapid internationalisation. Structuring entrepreneur-related constructs and building a conceptual framework is necessary for future international entrepreneurship research.

The major theoretical contribution of the study is the conceptual framework of the main entrepreneur-level determinants of rapid internationalisation. The framework illustrates two groups of entrepreneur-related constructs in an internationalisation literature – those which constitute the potential of an entrepreneur before starting a born global firm, and those which reflect the logic of an entrepreneur, his decision-making schemes throughout the internationalisation process. The importance of entrepreneurial knowledge and technological orientation seem to be one of the main explanatory factors of born global companies appearance. International networking chains are a significant factor positively influencing rapid internationalisation. The second group of factors connected with behaviour of an entrepreneur and his or her decision-making styles.

There are also managerial implications which can be drawn from the framework developed. The framework demonstrates the knowledge and capabilities needed at the early stage of a born global start-up creation and further capabilities needed for running such a firm. For governmental programs supporting firms internationalisation it indicates a shift from providing direct financing towards training of founders and management and development of international networks for born global firms.

Future research might try to integrate the reviewed entrepreneur-related constructs with organisational characteristics and external characteristics which determine born globals emergence. The results of the study are exploratory and there is a need in validating the theoretical framework through an advanced quantitative study.

One obvious shortcoming of this paper has to be acknowledged, namely its scope is limited to 94 articles. The papers taken into consideration, however, cover all important issues related to the entrepreneur-related determinants of internationalisation. However, the literature on firm internationalisation and international entrepreneurship is very rich and allows for a more in-depth analysis and comparison based on a larger sample of papers.

REFERENCES

- Ali, M. Y. (2004). Impact of firm and management related factors on firm export performance. *Journal of Asia Pacific Marketing*, 3(2), 5-20.
- Andersen, O. (1993). On the internationalisation process of firms: A critical analysis. *Journal of International Business Studies*, 24(2), 209-231.
- Andersson, S., & Wictor, I. (2003). Innovative internationalisation in new firms: Born globals – the Swedish case. *Journal of International Entrepreneurship*, 1(3), 249-276.
- Andersson, S. (2004). Internationalisation in different industrial contexts. *Journal of Business Venturing*, 19(6), 851-875.
- Andersson, S. (2011). International entrepreneurship, born globals and the theory of effectuation. *Journal of Small Business and Enterprise Development*, 18(3), 627 – 643.
- Aspelund, A., & Moen O. (2001). A generation perspective on small firm internationalization: From traditional exporters and flexible specialists to born globals. In C. N. Axinn, P. Matthysens (Eds.), *Reassessing the Internationalization of the Firm* (pp. 197–225). (Advances in International Marketing, Volume 11) Emerald Group Publishing Limited.
- Autio, E. E., & Yli-Renko, H. H. (1998). New, technology-based firms in small open economies – An analysis based on the Finnish experience. *Research Policy*, 26(9), 973-987. doi: 10.1016/S0048-7333(97)00054-1
- Autio, E., Sapienza, H. J., & Almeida, J. G. (2000). Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43(5), 909-924. doi: 10.2307/1556419
- Autio, E. E. (2005). Creative tension: The significance of Ben Oviatt's and Patricia McDougall's article 'Toward a theory of international new ventures'. *Journal of International Business Studies*, 36(1), 9-19. doi: 10.1057/palgrave.jibs.8400117
- Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. doi: 10.1177/014920639101700108
- Bartlett, C. A. C., & Ghoshal, S. S. (1987). Managing across borders: New organizational responses. *Sloan Management Review*, 29(1), 43-53.
- Bell, J., & Crick, D. (2004). Small firm internationalization and business strategy. An exploratory study of 'knowledge intensive' and 'traditional' manufacturing firms in the UK. *International Small Business Journal*, 22(1), 23–56.
- Bilkey, W.J., & Tesar G. (1977). The export behavior of smaller Wisconsin manufacturing firms. *Journal of International Business Studies*, 9, 93-98. doi: 10.1057/palgrave.jibs.8490783
- Bhowmick, S. (2008). Internationalisation of entrepreneurial firms: an enactment-effectuation dance. *5th AGSE International Entrepreneurship Research Exchange* (pp.785-794). Melbourne.
- Bonaccorsi, A. (1992). On the relationship between firm size and export intensity. *Journal of International Business Studies*, 23(4), 605-635. doi: 10.1057/palgrave.jibs.8490280
- Brennan, L., & Garvey, D. (2009). The role of knowledge in internationalization. *Research in International Business and Finance*, 23(2), 120-133. doi: 10.1016/j.ribaf.2008.03.007
- Burgel, O., & Murray, G. C. (2000). The international market entry choices of start-up companies in high-technology industries. *Journal of International Marketing*, 8(2), 33-62. doi: 10.1509/jimk.8.2.33.19624
- Campa, J. M., & Guillen, M. F. (1999). The internalisation of exports: Firm- and location-specific factors in a middle-income country. *Management Science*, 45(11), 1463-1478.

- Cavusgil, S.T. (1980). On the internationalization process of firms. *European Research*, 8, 273-281.
- Cavusgil, S.T., & Knight, G. (2009). *Born Global Firms: A New International Enterprise*. New York: Business Expert Press.
- Chandra, Y., Styles, C., & Wilkinson, I. (2009). The recognition of first time international entrepreneurial opportunities. *International Marketing Review*, 26(1), 30–61. doi: 10.1108/02651330910933195
- Chetty, S., & Campbell-Hunt C. (2004). A strategic approach to internationalisation: A traditional versus “Born Global” approach. *Journal of International Marketing*, 12(1), 57-81.
- Coviello, N., & Munro, H. (1997). Network relationships and the internationalisation process of small software firms. *International Business Review*, 6(4), 361-386. doi: 10.1016/S0969-5931(97)00010-3
- Covin, J.G., & Slevin, D.P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75-89. doi: 10.1002/smj.4250100107
- Crick, D., & Jones, M.V. (2000). Small high-technology firms and international high-technology markets. *Journal of International Marketing*, 8(2), 63–85. doi: 10.1509/jimk.8.2.63.19623
- Crick, D., & Crick, J. (2014). The internationalization strategies of rapidly internationalizing high-tech UK SMEs. *European Business Review*, 26(5), 421- 448.
- Eisenhardt, K. M. K., & Martin, J. A. J. (2000), Dynamic Capabilities: What are they? *Strategic Management Journal*, 21(10/11), 1105-1121. doi: 10.1002/1097-0266(200010/11)21:10/11%3C1105::AID-SMJ133%3E3.0.CO;2-E
- Eriksson, K., Johanson, J., & Majkard, A. (2000). Effect of variation on knowledge accumulation in the internationalization process. *International Studies on Management and Organisation*, 30(1), 26–44.
- Fan, T., & Phan, P. (2007). International new ventures: Revisiting the influences behind the 'born-global' firm. *Journal of International Business Studies*, 38(7), 1113-1131. doi: 10.1057/palgrave.jibs.8400308
- Fernhaber, S. A., McDougall, P. P., & Oviatt, B. M. (2007). Exploring the role of industry structure in new venture internationalization. *Entrepreneurship: Theory & Practice*, 31(4), 517-542. doi: 10.1111/j.1540-6520.2007.00186.x
- Fillis, I. (2001). Small firm internationalization: an investigative survey and future research directions. *Management Decision*, 39(9), 767–783.
- Francis, J., & Collins-Dodd, C. (2000). The impact of firms' expert orientation on the export performance of high-tech small and medium-sized enterprises. *Journal of International Marketing*, 8(3), 84-103.
- Freeman, S., Edwards, R., & Schroder, B. (2006). How smaller born-global firms use networks and alliances to overcome constraints to rapid internationalization. *Journal of International Marketing*, 14(3), 33-63. doi: 10.1509/jimk.14.3.33
- Freeman, S., & Cavusgil, S. T. (2007). Toward a typology of commitment states among managers of born-global firms: A study of accelerated internationalization. *Journal of International Marketing*, 15(4), 1-40.
- Gabrielsson, M. M., & Gabrielsson, P. P. (2003). Global marketing strategies of born globals and globalising internationals in the ICT field. *Journal of Euro-Marketing*, 12(3/4), 123-145. doi: 10.1300/J037v12n03_08
- Gabrielson, M., & Kirpalani, V.H.M. (2004). Born globals: How to reach new business space rapidly. *International Business Review*, 13(5), 555-571. doi: 10.1016/j.ibusrev.2004.03.005

- Gabrielsson, M., Kirpalani, V.H.M., Dimitratos, P., Solberg, C.A., & Zucchella A. (2008). Born globals: Propositions to help advance the theory. *International Business Review*, 17(4), 385-401. doi: 10.1016/j.ibusrev.2008.02.015
- Gabrielsson, P., Gabrielsson M., & Seppälä, T. (2012). Marketing strategies for foreign expansion of companies originating in small and open economies: The consequences of strategic fit and performance. *Journal of International Marketing*, 20(2), 25-48. doi: 10.1509/jim.11.0068
- Galkina, T., & Chetty, S. (2015). Effectuation and networking of internationalizing SMEs. *Management International Review*, 55(5), 647-676. doi: 10.1007/s11575-015-0251-x
- Gassmann, O., & Keupp, M. M. (2007). The competitive advantage of early and rapidly internationalising SMEs in the biotechnology industry: A knowledge-based view. *Journal of World Business*, 42, 350-366. doi: 10.1016/j.jwb.2007.04.006
- Harms, R., & Schiele, H. (2012). Antecedents and consequences of effectuation and causation in the international new venture creation process. *Journal of International Entrepreneurship*, 10, 95-116. doi: 10.1007/s10843-012-0089-2
- Hashai, N., & Almor, T. (2004). Gradually internationalising 'Born Global' firms: An oxymoron? *International Business Review*, 13(4), 465-483.
- Jantunen, A., Puumalainen, K., Saarenketo, S., & Kyläheiko, K. (2005). Entrepreneurial orientation, dynamic capabilities and international performance. *Journal of International Entrepreneurship*, 3, 223-243. doi: 10.1007/s10843-005-11332
- Johanson J., & Vahlne J.E. (1977). The internationalisation process of the firm. *Journal of International Business Studies*, 8, 23-32.
- Johanson J., & Vahlne J.E. (1990). The Mechanisms of Internationalisation. *International Marketing Review*, 7(4), 11-24. doi: 10.1108/02651339010137414
- Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization process of the firm – Four Swedish cases. *Journal of Management Studies*, 12(3), 305-322.
- Johanson, J.E. (2004). Factors influencing the early internationalization of high technology start-ups: US and UK evidence. *Journal of International Entrepreneurship*, 2, 139-154.
- Jones, M. V. (1999). The internationalization of small high-technology firms. *Journal of International Marketing*, 7(4), 15-41.
- Jones, M. V. M., & Coviello, N. E. N. (2005). Internationalisation: Conceptualising an entrepreneurial process of behaviour in time. *Journal of International Business Studies*, 36(3), 284-303. doi: 10.1057/palgrave.jibs.8400138
- Keeble, D., Lawson, C., Lawton-Smith, H., Moore, B., & Wilkinson, F. (1998). Internationalisation processes, networking and local embeddedness in technology-intensive small firms. *Small Business Economics*, 11(4), 327-342.
- King, A. A., & Tucci, C. L. (2002). Incumbent entry into new market niches: The role of experience and managerial choice in the creation of dynamic capabilities. *Management Science*, 48, 171-186. doi: 10.1287/mnsc.48.2.171.253
- Knight, G.A., & Cavusgil, S.T. (1996). The born global firm: A challenge to traditional internationalization theory. In S. T. Cavusgil & T. Madsen (Eds.), *Advances in International Marketing* (pp.11-26), CT, Greenwich: JAI Press.
- Knight, G.A. (2000). Entrepreneurship and marketing strategy: The SME under globalization. *Journal of International Marketing*, 8(2), 12-32. doi: 10.1509/jimk.8.2.12.19620
- Knight, G.A. (2001). Entrepreneurship and strategy in the international SME. *Journal of International Management*, 7, 155-171. doi: 10.1016/S1075-4253(01)00042-4

- Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities and the born-global firm. *Journal of International Business Studies*, 35(2), 124-141. doi: 10.1057/palgrave.jibs.8400071
- Knight, G. A., Madsen, T. T., & Servais, P. P. (2004). An inquiry into born-global firms in Europe and the USA. *International Marketing Review*, 21(6), 645-665. doi: 10.1108/02651330410568060
- Knight, G.A., & Liesh P.W. (2016). Internationalization: From incremental to born global. *Journal of World Business*, 51(1), 93-102. doi: 10.1016/j.jwb.2015.08.011
- Kuivalainen, O., Sundqvist S., & Servais P. (2007). Firms' degree of born-globalness, international entrepreneurial orientation and export performance. *Journal of World Business*, 42, 253–267.
- Kuivalainen, O., Saarenkato, S., & Puumalainen, K. (2012). Start-up patterns of internationalization: A framework and its application in the context of knowledge-intensive SMEs. *European Management Journal*, 30(4), 372-385. doi: 10.1016/j.emj.2012.01.001
- Kundu, S.K., & Katz, J.A. (2003). Born-international SMEs: Bi-level impacts of resources and intentions. *Small Business Economics*, 20, 25-47.
- Laanti, R., Gabrielsson, M., & Gabrielsson, P. (2007). The globalisation strategies of business-to-business born global firms in the wireless technology industry. *Industrial Marketing Management*, 36(8), 1104-1117.
- Larimo, J. (2006). Different types of exporting SME's: Similarities and differences in export performance. *Advances in International Marketing*, 17, 17-62.
- Laurell, H., Anderson, S., & Achtenhagen, L. (2013). The importance of industry context for new venture internationalisation: A case study from the life sciences. *Journal of International Entrepreneurship*, 11, 297-319. doi: 10.1007/s10843-013-0116-y
- Loane, S., McNaughton, R. B., & Bell, J. (2004). The internationalization of internet-enabled entrepreneurial firms: Evidence from Europe and North America. *Canadian Journal of Administrative Sciences*, 21(1), 79-96. doi: 10.1111/j.1936-4490.2004.tb00324.x
- Loane, S., Bell, J. D., & McNaughton, R. (2007). A cross-national study on the impact of management teams on the rapid internationalisation of small firms. *Journal of World Business*, 42(4), 489-504.
- Lopez, L.E., Kundu, S.K., & Ciravenga, L. (2009). Born global or born regional? Evidence from an exploratory study in the Costa Rican software industry. *Journal of International Business Studies*, 40, 1228-1238. doi: 10.1057/jibs.2008.69
- Lu, J., & Beamish, P. (2001). The internationalization and performance of SMEs. *Strategic Management Journal*, 22, 565–586. doi: 10.1002/smj.184.abs
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21, 135-172. doi: 10.5465/AMR.1996.9602161568
- Madsen, T.K., & Servais, P. (1997). The internationalization of born global firms – an evolutionary process. *International Business Review*, 6(6), 561-583.
- Mainela, T., & Puhakka, V. (2008). Organising new business in a turbulent context: Opportunity discovery and effectuation for IJV development in transition markets. *Journal of International Entrepreneurship*, 7, 111-134. doi: 10.1007/s10843-008-0034-6
- McAuley, A. (1999). Entrepreneurial instant exporters in the Scottish arts and crafts sector. *Journal of International Marketing*, 7(4), 67-82.
- McDougall, P.P. (1989). International versus domestic entrepreneurship: New venture strategic behavior and industry structure. *Journal of Business Venturing*, 4(6), 387-400. doi: 10.1016/0883-9026(89)90009-8

- McDougall, P. P., Shane, S., & Oviatt, B.M. (1994). Explaining the formation of international new ventures: The limits of theories from international business research. *Journal of Business Venturing*, 9(6), 469-487.
- McDougall, P.P., & Oviatt, B.M. (2000). International entrepreneurship: The intersection of two research paths. *Academy of Management Journal*, 43(5), 902-906. doi: 10.2307/1556418
- McDougall, P.P., & Oviatt, B. M. (2003). Some fundamental issues in international entrepreneurship. *Entrepreneurship Theory & Practice*. Retrieved on December 10, 2015 from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.210.861&rep=rep1&type=pdf>
- Moen, O., Gavlen, N., & Endersen, I. (2004). Internationalization of small, computer software firms. Entry forms and market selection. *European Journal of Marketing*, 38(9/10), 1236 – 1251.
- Moen, O., & Servais, P. (2002). Born global or gradual global? Examining the export behaviour of small and medium-sized enterprises. *Journal of International Marketing*, 10(3), 49-72.
- Nelson, R.R. (1991). Why do firms differ, and how does it matter? *Strategic Management Journal*, Winter Special Issue 12, 61–74. doi: 10.1002/smj.4250121006
- Oviatt, B.M., & McDougall, P.P. (1994). Toward a theory of international new ventures. *Journal of International Business Studies*, 25(1), 45-65. doi: 10.1057/palgrave.jibs.8490193
- Pawęta, E. (2013). The determinants of born global companies emergence in Central European countries. *Entrepreneurial Business and Economics Review*, 1(2), 41-50. doi: <http://dx.doi.org/10.15678/EBER.2013.010204>
- Pellegrino, J.M., & McNaughton, R.B. (2015). The co-evolution of learning and internationalization strategy in international new ventures. *Management International Review*, 55(11), 457-483. doi: 10.1007/s11575-015-0246-7
- Prange, C., & Verdier, S. (2011). Dynamic capabilities, internationalization processes and performance. *Journal of World Business*, 46(1), 126-133. doi: 10.1016/j.jwb.2010.05.024
- Prashantham, S., & Berry, M.M.J. (2004). The small knowledge-intensive firm: a conceptual discussion of its characteristics and internationalisation. *International Journal of Entrepreneurship and Innovation Management*, 4, 150–155. doi: 10.1504/IJEIM.2004.004722
- Preece, S.B., Miles, G., & Baetz, M. (1999). Explaining the international intensity and global diversity of early-stage technology-based firms. *Journal of Business Venturing*, 14, 259-281. doi: 10.1016/S0883-9026(97)00105-5
- Rennie, M.W. (1993). Global competitiveness: Born Global. *The McKinsey Quarterly*, 4, 45-52.
- Rialp, A. A., Rialp, J. J., & Knight, G. A. G. (2005). The phenomenon of early internationalizing firms: What do we know after a decade (1993-2003) of scientific inquiry? *International Business Review*, 14(2), 147-166. doi: 10.1016/j.ibusrev.2004.04.006
- Roudini, A., & Osman M. (2012). The role of international entrepreneurship capability on international performance in born global firms. *iBusiness*, 4(2), 126-135. doi: 10.4236/ib.2012.42015
- Rutihinda, C. (2008). Factors influencing the internationalization of small and medium size enterprises. *International Business & Economics Research Journal*, 7(12).
- Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. (2006). A capability perspective on the effects of early internationalization on firm survival and growth. *Academy of Management Review*, 31, 914–933. doi: 10.5465/AMR.2006.22527465
- Sarasvathy, S. D. (2001). Causation and effectuation: Towards a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243-288. doi: 10.5465/AMR.2001.4378020

- Sarasvathy, S., Kumar, K., York, J.G., & Bhagavatula, S. (2014). An effectual approach to international entrepreneurship: Overlaps, challenges, and provocative possibilities. *Entrepreneurship, Theory and Practice*, 38(11), 71-93. doi: 10.1111/etap.12088
- Schlegelmilch, B. B., & Crook, J. N. (1988). Firm-level determinants of export intensity. *Managerial and Decision Economics*, 9(4), 291-300. doi: 10.1002/mde.4090090408
- Schweizer, R., Vahlne, J.-E., & Johanson, J. (2010). Internationalization as an entrepreneurial process. *Journal of International Entrepreneurship*, 8, 343-370. doi: 10.1007/s10843-010-0064-8
- Sharma, D.D., & Blomstermo, A. (2003). The internationalization process of Born Globals: a network view. *International Business Review*, 12(6), 739-753. doi: 10.1016/j.ibusrev.2003.05.002
- Shrader, R. C., Oviatt, B. M., & McDougall, P. P. (2000). How new ventures exploit trade-offs among international risk factors: Lessons for the accelerated internationalisation of the 21st century. *Academy of Management Journal*, 43(6), 1227-1247. doi: 10.2307/1556347
- Vernon, R. (1966). International investment and international trade in the product life cycle. *The Quarterly Journal of Economics*, 80(2), 190-207.
- Weerawardena, J., Sullivan Mort, G., Liesch, P. W., & Knight, G. (2007). Conceptualizing accelerated internationalization in the born global firm: A dynamic capabilities perspective. *Journal of World Business*, 42, 294-306. doi: 10.1016/j.jwb.2007.04.004
- Wickramasekera, R., & Bamberry, G. (2003). Exploration of born globals/International new ventures: Some evidence from the Australian wine industry. *Australasian Journal of Regional Studies*, 9(2), 207-220.
- Wolff, J. A., & Pett, T. L. (2000). Internationalization of small firms: An examination of export competitive patterns, firm size, and export performance. *Journal of Small Business Management*, 38(2), 34-47.
- Wright, M., Westhead, P., & Ucbasaran, D. (2007). Internationalisation of small and medium-sized enterprises (SMEs) and international entrepreneurship: A critique and policy implications. *Regional Studies*, 41(7), 1013-1030.
- Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualisation, and extension. *Academy of Management Review*, 27(2), 185-203.
- Zahra, S. A., Ireland, R. D., & Hitt, M. A. (2000). International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management Journal*, 43 (5), 925-950. doi: 10.2307/1556420
- Zhang, M., Tansuhaj, P., & McCullough, J. (2009). International entrepreneurial capability: The measurement and a comparison between born global firms and traditional exporters in China. *Journal of International Entrepreneurship*, 7, 292-322. doi: 10.1007/s10843-009-0042-1
- Zucchella, A., Palamara, G., & Denicolai, S. (2007). The drivers of the early internationalization of the firm. *Journal of World Business*, 42, 268-280. doi: 10.1016/j.jwb.2007.04.008

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Appendix 1. A systematic literature review of the entrepreneur-related constructs in the prior studies on early internationalisation

Year	Author, Year	Sample	Research method	Main results
1966	Vernon, 1966		Conceptual paper	Internationalisation process follows the product life cycle. The main stages are new product stage, maturing product stage and standardized product stage.
1977	Johanson & Vahlne, 1977		Conceptual paper	The model of internationalisation process is developed based on the gradual acquisition and use of knowledge about foreign markets.
1977	Bilkey & Tesar, 1977	423 SMEs, USA	Quantitative	Stage internationalisation model is presented. Different factors influence firms on different stages of internationalisation process.
1980	Cavusgil, 1980		Conceptual paper	An innovation-related internationalisation model is presented. The main stages are: domestic marketing, pre-export stage, experimental involvement, active involvement and finally committed involvement.
1987	Bartlett & Ghoshal, 1987		Conceptual paper	Company's ability to develop transnational organizational capability and management mentality is the key factor of international success.
1988	Schlegelmilch & Crook, 1988	105 exporters from mechanical engineering industry, UK	Quantitative	Export intensity is positively related to the number of senior managers who speak a foreign language and to R&D intensity.
1989	Covin & Slevin, 1989	161 small manufacturers, USA	Quantitative	Small businesses can survive in hostile environments because of their organic structure, entrepreneurial strategic posture and awareness of industry trends.
1990	Johanson & Vahlne, 1990		Conceptual paper	Internationalisation process is influenced by strategic thinking, strategic action, emergent developments, chance and necessity.
1992	Bonaccorsi, 1992	Survey among manufacturers, Italy	Quantitative	The theory that size of a company is positively related to export intensity is being challenged.
1992	Andersen, 1992		Conceptual paper	Uppsala internationalisation model and innovation-related models are analysed, compared and modified.
1993	Rennie, 1993	Manufacturers from Australia	Qualitative, Quantitative	Born globals create value through innovative technology and product design. Technology is a critical competitive lever. They compete in niche markets, are very flexible and move fast.

1994	Oviatt & McDougall, 1994		Conceptual paper	Three potential sources of internationalisation are proposed – international resource base asymmetries, knowledge regeneration advantages and dynamic capability effect.
1997	Coviello & Munro, 1997	4 software developers, New Zealand	Qualitative	Internationalisation of small software firms is driven by a set of formal and informal network relationships.
1997	Madsen & Servais, 1997	9 case studies, different countries	Qualitative	Several propositions on born global firms characteristics are presented. Among the individual-level characteristics of born globals are: international experience of an entrepreneur, his or her innovative skills, networks with partners and relying on their supplementary competences. Other characteristics are: niche orientation, level of internationalisation of the industry, small domestic markets.
1998	Autio & Yli-Renko, 1998	Panel survey of the Finnish national system of innovation and technology	Quantitative	New technology-based firms in small open economies grow as organic parts of technology supply networks maintained by large firms.
1998	Keeble et al., 1998	100 technology-intensive SMEs, Great Britain	Quantitative	Technology-based smaller firms are engaged in a range of international networks. Those firms which report high levels of internationalisation differ from those more nationally-oriented in terms of size, age, research intensity, university links and innovativeness.
1998	Preece et al., 1998	75 surveys of small technology-based firms, Canada	Quantitative	Authors try to explain intensity of foreign sales as well as global diversity of the markets in which they operate. Attitudes towards foreign markets helped to explain international intensity, however firm age was positively associated with global diversity.
1999	Campa & Guillen, 1999	837 manufacturing companies, Spain	Quantitative	Greater level of intangible technological assets, product variability and resource availability increase the likelihood of internationalisation.
1999	Jones, 1999	196 small high-technology firms, UK	Quantitative	Early internationalisation of small firms should be viewed as a holistic process, where interrelated decisions and processes combine to accomplish a firm's individual pattern of internationalisation.
1999	McAuley, 1999	3 case studies from arts and crafts business, Scotland	Qualitative	The key influences on instant internationalisation are classified as product related (design, quality, price, delivery), personal and psychological (attitude, family, personality, education), industry related (sectoral influence, global market) and cognitive (networks, access to know-how, business skills).
2000	Burgel & Murray, 2000	246 technology-based start-ups with international activities, UK	Quantitative	Issues of technological innovativeness and historic channel experience of the firm are particularly strong determinants of entry mode choice.
2000	Eisenhardt & Martin, 2000		Conceptual paper	Dynamic capabilities allow for emergent adaptation to new situations. When new knowledge must be rapidly gained, experimental activities such as prototyping, real-time information and experimenting replace strategic analysis.

2000	Knight, 2000	268 manufacturing SMEs operating in highly globalized industries, USA	Qualitative, Quantitative	Entrepreneurial orientation is a key variable for SMEs involved in international activities and has a positive impact on marketing strategy.
2000	Francis & Collins-Dodd, 2000	88 small and medium-sized high-tech exporters, Canada	Quantitative	Proactive export orientation is determining international success in the uncertain high-tech environment.
2000	McDougall & Oviatt, 2000		Conceptual paper	The article integrates the two areas of research – business internationalisation and entrepreneurship – It initiates the new branch of research, i.e. international entrepreneurship.
2000	Shrader et al., 2000	212 foreign market entries by 87 new ventures, USA	Quantitative	New ventures manage international risks by combining deep niche strategies with advanced technologies. The locus in a theory of accelerated internationalisation should be more on the entrepreneur than organizational decision-making system.
2000	Wolff & Pett, 2000	157 active exporters, USA	Quantitative	Size of the firm does not influence its competitive patterns and export intensity. Stage internationalisation models are no longer the only representation of how small firms pursue an international strategy.
2000	Zahra et al., 2000	103 mail surveys, USA	Quantitative	Organizational learning, exposure to new knowledge and technological learning influence early internationalisation of firms. There is a positive association between the use of acquisitions and the breadth of technological learning.
2000	Autio et al., 2000	Panel data from the Finnish electronic industry	Quantitative	Knowledge plays an important role in both the process theory of internationalisation and born global theory. High knowledge intensity is positively associated with faster international growth.
2000	Eriksson et al., 2000	70 interviews with CEOs of service firms, 409 mail surveys, Sweden	Qualitative, Quantitative	Initial knowledge base of the company is essential when analysing firms that internationalise from the outset. The effect of variation has an influence on experiential knowledge development in the internationalisation process of a firm.
2000	Crick & Jones, 2000	88 case studies of technologically oriented SMEs, UK	Qualitative	Entrepreneurial issues have important influence on the nature and pace of internationalisation in high-tech industry. Among them – experience in international markets, network of customers and contacts, decision to engage in international markets immediately after founding.
2001	Knight, 2001	268 manufacturing SMEs, USA	Qualitative, Quantitative	International entrepreneurial orientation is enhanced by preparation for internationalisation, technology acquisition, marketing strategy.
2001	Fillis, 2001		Literature review	Such entrepreneurial competences as a global vision, a focused approach to doing business and the ability to recognize opportunities are drivers of born global's competitive advantage.

2001	Lu & Beamish, 2001	164 Japanese SMEs	Quantitative	When firm first begins FDI activity, profitability declines, however using alliances with partners with local knowledge can be an effective strategy on foreign markets.
2001	Aspelund & Moen, 2001	208 exporting firms, Norway	Quantitative	Born global firms are different from traditional exporters because of their strong technological competitiveness, their niche focus and the use of advanced communication technology.
2002	Moen & Servais, 2002	677 small and medium-sized exporting firms, Norway, Denmark, France	Quantitative	Global orientation, export intensity and market selection are not influenced by the firm's year of establishment. Future export involvement depends on the firm's behaviour shortly after its establishment.
2002	King & Tucci, 2002	174 firms from disk-drive industry, USA	Quantitative	Experience in previous markets increases the probability that a firm would enter a new market. Managers choose to enter new markets to increase their international experience.
2003	Andersson & Wictor, 2003	4 case studies of born global firms, Sweden	Qualitative	Active entrepreneurs who recognize global opportunities are crucial for implementation of born global strategies within their networks.
2003	Gabrielsson & Gabrielsson, 2003		Conceptual paper	Two globalisation paths are distinguished – born globals and globalising internationals. The importance of co-operation in vertical and horizontal value networks is discussed.
2003	Kundu & Katz, 2003	47 born-international firms from Indian software industry, India	Qualitative, Quantitative	During the early stages of firm development owner characteristics (not firm or industry) play pivotal role in the performance of the company.
2003	Wickramasekera & Bamberly, 2003	106 surveys within the wine industry, Australia	Quantitative	Born global firms are only high technology firms, but also regional firms such as wineries. One of the reasons for being born global are prior managerial experience in exporting.
2003	Sharma & Blomstermo, 2003	2 case studies, Sweden	Qualitative	Internationalisation process of born global firms is based on learning through networks. They usually possess international market knowledge before their first market entry.
2003	McDougall & Oviatt, 2003		Conceptual paper	The main concepts which are being discussed are network theory and learning and knowledge management.
2004	Ali, 2004	60 exporting companies, Australia	Quantitative	Firm-related factors (firm size, separate export department) are not significant for export performance, however management-related factors have significant impact on export volume and export intensity.

2004	Andersson, 2004	Cases from mature industry and high-growth industry, Sweden	Qualitative	Firms in different industries have different international patterns. In the early phase of firm's development personal networks are important, however in the later stages firm's actions are of a greater significance to the industry as a whole.
2004	Bell & Crick, 2004	30 SMEs, including 15 from knowledge-intensive sectors and 15 from traditional sectors, UK	Qualitative	Product and process innovations stimulate international growth of a company. There is a significant difference in the way of internationalisation in knowledge-intensive sectors and in the traditional sectors, what confirms influence of the external environment, especially in the early stages of international development.
2004	Chetty & Campbell-Hunt, 2004	16 case studies, New Zealand	Qualitative	Born globals start as traditional firms but are radically transformed in the process of achieving global reach. They require more aggressive learning strategies. Combination of small firm size and global potential of innovation causes radical transformations predicted in the born global model.
2004	Hashai & Almor, 2004	53 knowledge-intensive born global firms, Israel	Quantitative	Knowledge-intensive born globals follow internationalisation path sequentially: first – exporting, next – greenfield marketing subsidiaries, and finally, engagement into mergers and acquisitions.
2004	Knight & Cavusgil, 2004	24 interviews, 203 manufacturing firms surveys, USA	Qualitative, Quantitative	International entrepreneurial orientation and international marketing orientation are the key characteristics of born global companies which enforce rapid internationalisation.
2004	Knight et al., 2004	32 case studies, 292 surveys of born global firms, Denmark, USA	Qualitative, Quantitative	Born global international performance is enhanced by foreign customer focus and marketing competences.
2004	Loane et al., 2004	8 case studies of born global firms, different countries	Qualitative	Rapid internationalisation is greatly enabled by internet. Competitive advantage is based on how effectively firms integrate new technologies into their business model.
2004	Knight & Cavusgil, 2004	23 small exporting firms, USA	Quantitative	Born global firms succeed because of the set of entrepreneurial characteristics and capabilities possessed by managers.
2004	Johnson, 2004	US and UK small high technology international start-ups	Qualitative, Quantitative	The main factors pushing born globals to internationalise are the international vision of the founders, their desire to be international market leaders, the identification of specific international opportunities and the possession of international contacts.
2004	Gabrielson & Kirpalani, 2004	Case studies of firms from Israel and Finland from similar industries	Qualitative	Born globals must use existing channels and networks provided by multinational corporations. Those channels provide learning, technology and rapid growth.
2004	Prashantham & Berry, 2004		Conceptual paper	There are four key influences on the internationalisation process of born globals - knowledge intensity, small size of firms, the environment and the entrepreneur.

2004	Moen et al., 2004	5 case studies of software firms, Norway	Qualitative	Firm's network relationships determine which entry forms to choose and which foreign markets to enter.
2005	Autio, 2005		Conceptual paper	Advances in internationalisation theories and new directions for research in international entrepreneurship are discussed.
2005	Jantunen et al., 2005	217 firms in manufacturing and service sectors, Finland	Quantitative	International performance is positively influenced not only by entrepreneurial orientation and by the ability to use existing resources in order to exploit new opportunities.
2005	Jones & Coviello, 2005		Conceptual paper	Providing foundation for entrepreneurial theory of internationalisation, where entrepreneurship and internationalisation are seen as interdependent processes.
2005	Rialp et al., 2005	38 studies	Literature review	The review of the international entrepreneurship literature from the past decade.
2006	Freeman et al., 2006	3 small born global exporters, Australia	Qualitative	Among variables which are positively connected with rapid internationalisation are: personal networks, strong commitment to the idea of internationalisation, unique technology, use of multiple entry modes for different markets.
2006	Larimo, 2006	Survey among Finnish SMEs	Quantitative	Export performance is positively impacted by firm size, product quality, international orientation and market diversification.
2006	Sapienza et al., 2006		Conceptual paper	Building dynamic capabilities influence positively on firm's international performance. Factors moderating relationship between capability development and survival and growth are identified.
2007	Fan & Phan, 2007	135 companies from intra-european airline industry	Quantitative	The decision of internationalisation is influenced by external factors like size of the home market, production capacity, cultural and economic forces.
2007	Fernhaber et al., 2007		Conceptual paper	The influence of industry structure on the new venture internationalisation is analysed. Positive relationship between the knowledge intensity of an industry and a new firm internationalisation is confirmed.
2007	Freeman & Cavusgil, 2007	12 interviews with exporters, Australia	Qualitative	Entrepreneurial strategies that might be adopted for by small born global firms are: entrepreneurial perception of opportunity-ridden environment, gradual network evolution, foreign markets network-driven selection.

2007	Kuivalainen et al., 2007	185 firms grown abroad within the first three years of operations, Finland	Quantitative	The “true born globals”, characterised by entrepreneurial orientation, achieve international performance significantly better than the “born internationals”.
2007	Laanti et al., 2007	4 wireless technology born globals, Finland	Qualitative	Conceptual framework is developed where resources and capabilities together with global determinants and industry specific factors explain emergence of born global companies.
2007	Loane et al., 2007	57 case studies, Australia, Canada, Ireland and New Zealand	Qualitative, Quantitative	Top management teams create the core internal capabilities and address key resources or knowledge gaps to expand international networks.
2007	Wright et al., 2007		Conceptual paper	Internationalisation is a dynamic activity and requires developing skills and gaining resources in the process of international markets entry.
2007	Zucchella et al., 2007	144 SMEs, Italy	Quantitative	Individual variables which determine early international orientation are previous international experience of an entrepreneur and foreign language knowledge.
2007	Gassmann et al., 2007	Biotechnology SMEs, Switzerland, Germany, and Australia	Qualitative	Born globals generate their competitive advantage based on dynamic capabilities, what enables them to internationalise early and rapidly.
2007	Weerawardena et al., 2007		Conceptual paper	Internationally-oriented entrepreneurs build a set of dynamic capabilities which help them to develop cutting-edge knowledge intensive products and successfully enter international markets.
2008	Rutihinda, 2008	64 exporters, Canada	Quantitative	The research showed four major factors which explain internationalisation: international orientation of the founder, globalisation of the firm’s industry structure, established international networks and foreign market potential.
2008	Gabrielson et al., 2008	8 case studies of SMEs, Greece, Norway, Finland, Italy	Qualitative	Selection of the right channels for rapid growth depends on specific characteristics of the firm and its founder, the product and innovation, and the networking approach.
2008	Bhowmick, 2008	4 case studies	Qualitative	Internationalisation process is a combination of enactment and effectuation. Enactment concept is quite similar to effectuation. It means that the entrepreneurs, being a part of the situation they face, act without full knowledge of the situation, though both the situation and the decisions are often rationalized in retrospect.
2008	Mainela & Puhakka, 2008	1 case study of IJV, Poland	Qualitative	International entrepreneurship is a complicated process which requires a set of means which are effectuation logic, proactiveness and partnering strategies.

2009	Zhang et al., 2009	148 manufacturing firms, China	Quantitative	Born global firms are different from traditional firms along three dimensions: international learning capability, international networking capability and international experience.
2009	Brennan & Garvey, 2009		Literature review	Article presents a synthesis on born global phenomenon in the framework of new perspective on the role of knowledge. Knowledge intensity and internationalisation knowledge accumulation influence the pace and pattern of firm internationalisation.
2009	Lopez et al., 2009	40 software companies, Costa Rica	Qualitative	The majority of surveyed firms turned out to be "born regionals", as they followed gradual internationalisation approach.
2009	Chandra et al., 2009	8 case studies of SMEs operating in knowledge-based industries, Australia	Qualitative	Companies with no prior international experience tend to use opportunities rather than apply systematic research. However, firms with international knowledge apply information from their networks and discover international opportunities using pre-existing means (resources, skills, technologies).
2010	Schweizer et al., 2010	1 case study, Sweden	Conceptual paper	Authors updated their conceptual model from 1977 and 2009 and included entrepreneurial aspects, like effectuation principle. Their updated model includes "exploiting contingencies" variable leading to progress in the internationalisation process. Authors agree that effectuation logic can strongly contribute to internationalisation of firms.
2011	Prange & Verdier, 2011		Literature review	Authors investigate the concept of dynamic capabilities which affects the pace of internationalisation. Such capabilities are divided into two separate classes of explorative and exploitative capabilities. The new notion of third-order capabilities is introduced.
2011	Andersson, 2011	2 case study, Sweden	Qualitative	Effectuation introduces a pro-active entrepreneurial perspective that better describes the firm's development than earlier theories used to analyse born global's internationalisation.
2012	Roudini & Osman, 2012		Conceptual paper	International entrepreneurial capability consists of several dimensions – international networking capability, international marketing capability, innovation and risk-taking capability, international learning capability and international experience.
2012	Kuivalainen et al., 2012		Literature review	Antecedents of internationalisation on the managerial level are mindset of an entrepreneur, his experience and entrepreneurial orientation. Networks and knowledge are included into the model as well on the firm level.
2012	Harms & Schiele, 2012	65 rapidly growing SMEs, Germany	Quantitative	Entrepreneurs tend to apply effectuation rather than causation. The importance of the individual level of analysis in international entrepreneurship research is emphasised.
2012	Gabrielsson et al., 2012	261 firms, Finland, Sweden	Quantitative	The research investigates marketing strategies for foreign expansion of companies originating in SMOPECs.

2013	Laurell et al., 2013	Case study of the new venture from the life sciences industry, Sweden	Qualitative	Some factors in the industry context affect internationalisation process, especially entrepreneurs and their networks.
2014	Sarasvathy et al., 2014	1 case study, India	Qualitative	Effectual approach can resolve conflicts and knowledge gaps in two reviews of international entrepreneurship. Authors offer four possibilities for future research at the intersection of international entrepreneurship and effectuation research.
2014	Crick & Crick, 2014	16 high-tech SMEs, UK	Qualitative	The study confirms the use of both effectuation and causation logic within the high-tech SMEs. Opportunities in the international niche markets and manager's experience and networks are confirmed to affect internationalisation strategies.
2015	Knight & Liesh, 2015		Conceptual paper	The stage internationalisation models of multinational enterprises are compared to the rapid internationalisation models of born global firms.
2015	Galkina & Chetty, 2015	7 case studies, Finland	Qualitative	International entrepreneurs network with interested partners, instead of carefully selecting international partners.
2015	Pellegrino & McNaughton, 2015	4 INVs, New Zealand	Qualitative	Internationalisation strategy of INVs evolves during internationalisation process. Learning during internationalisation comes from interactions among learning, the knowledge learned, components of internationalisation strategy, resource constraints, characteristics of industry/product.

Source: own study.

Incremental versus Rapid Internationalisation of Firms: Results of Exploratory Investigation from Poland

Krzysztof Wach

ABSTRACT

Objective: The main objective of the article was to discuss the pace of internationalisation and its empirical verification among Polish firms taking into account two factors – strategic thinking and familiness of the studied firms.

Research Design & Methods: The paper, apart from literature review and its critique, is based on results of a survey conducted among randomly selected 355 internationalised firms of different sizes from Poland.

Findings: Firms having an internationalisation strategy rather internationalise faster than those lacking such a strategy, taking into account the average number of years elapses from its founding to the first internationalisation. The empirical results show that the average time of internationalisation is shorter in case of family firms than non-family firms.

Implications & Recommendations: Strategic thinking seems to be very important while going international. A well thought-out strategy can stimulate the whole process of internationalisation, so decision makers, especially entrepreneurs, should pay more attention to strategic aspects, even in early stages of development or early internationalisation.

Contribution & Value Added: The article attempts to enrich the ongoing scientific discourse on the role of time and the pace of internationalisation by adding some evidence from Poland illustrating and verifying the links between strategic thinking as well as familiness of firms and the speed of internationalisation measured in years from the establishment of firms.

Article type: research paper

Keywords: born globals; international entrepreneurship; international business; internationalisation; strategy; family firm

JEL codes: F23, O30, M16

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INTRODUCTION

There is an ongoing discourse on the role of time in the internationalisation process of firms (Ratajczak-Mrozek, 2015). There are usually two competitive perspectives. The first one, which is classical or traditional, states that the internationalisation process is incremental and the firm goes through various stages treating internationalisation as a slow process of excellence (international-by-stages), which is also based on the concept of exporting by learning (Wąsowska, Obloj, & Ciszewska-Mlinarič, 2016). The second trend reveals internationalisation as a rapid or accelerated process and believes that some factors make that internationalisation is much more complex from the inception of the firm (international at founding).

Some scholars try to explain the internationalisation process of the firm by using various strategic management variables (Bell, Crick, & Young, 2004). As it is evident in many studies that strategic thinking has impact on the international orientation of firms. This study tests this relationship in a Polish context to explore if and how planned or formalised strategies can influence the speed of internationalisation.

Various researchers have provided mixed evidence on how different factors facilitate or constrains internationalisation of family firms (Daszkiewicz & Wach, 2014). Time seems to be one of the features that distinguishes the process of internationalisation of family and non-family businesses, there some empirical evidence for faster internationalisation (Popczyk, 2013), while some empirical results show the opposite trend (Wach, 2014). The current study tries to involve this factor into the ongoing discussion.

The article aims at discussing the pace of internationalisation through two basic theoretical perspectives and at empirically verifying the speed of internationalisation of Polish internationalised firms taking into account two factors – strategic thinking and familiness of the studied firms. The article includes the analysis of the literature and its critics as well as the discussion on empirical results based on a survey questionnaire conducted on the sample of 355 firms from Poland.

The first section of the paper includes the literature review on two main perspectives of the internationalisation time, namely the stages models based on the incremental internationalisation as well as the international entrepreneurship perspective expressed in the early and rapid internationalisation. The second section discusses the methodological assumptions of the empirical studies, among them the hypotheses, the research design and the sampling. The third sections elaborates on the empirical results of the survey and the statistical calculations, followed by the conclusions in typical layout consisting of final remarks, research limitations and suggestions for further studies.

LITERATURE REVIEW

There are various theoretical models explaining the phenomenon of internationalisation of firms. The beginnings of stages models, as the oldest ones in the theory of the internationalisation of the firm, go back to 1970s, when almost simultaneously Swedish and Finnish researchers used the behavioural theory of the firm to explain behaviours within internationalisation. The group of those theories is also defined as Nordic models (Ruzzier, Hisrich, & Antoncic, 2006, p. 482), or learning models (*Ibidem*), but also process mod-

els (Mejri & Umemoto, 2010, p. 157), incremental ones (Coviello & McAuley, 1996), sequential ones (Wickramasekera & Oczkowski, 2006, p. 52), the models of establishment order or establishment chain (Crick, Chaudhry, & Batstone, 2001, p. 79), gradual ones (Morgan & Katsikeas, 1997, p. 72), evolutionary (*Ibidem*) or process ones (process theories of internationalisation, PTI) (Schwens, Steinmetz, & Kabst, 2010, p. 114). They are based on the phase (process) convention of firm development (organisational life cycle). Their common feature is sequential passing in the internationalisation process through various stages or phases which together create a set order, and each next stage is related to bigger commitment of the firm to international activities. In the literature of the subject there are several dozen stages models, each with different number of stages, but, as a rule, the initial stage is the activity on the domestic market.

Stages models belong to the mainstream of the internationalisation theory and are most frequently used in empirical research although they are not perfect concepts, which is almost equally often discussed in the literature of the subject. The main charge against them concerns sequentiality. Numerous authors argue that not every firm must go through all the stages, starting from the initial one and ending with the last one. In the literature of the subject we can also come across extreme opinions, such as, for example, Cavusgil's (1994, p. 18) view that gradual internationalisation is already dead, which was said in the context of the phenomena of born globals. The criticism of stages models boils down to the following controversies:

- not every business passes through all the stages of the establishment chain, in practice, leapfrogging or omitting some stages takes place (Cannon & Willis, 1981);
- in practice, some firms apply either the path of accelerated internationalisation, as it takes place, for example, in the case of hidden champions, or they are international or even global from the very beginning (born globals) (Oviatt & McDougall, 1994);
- stages models do not consider either the strategic approach of the management staff or entrepreneurial processes which in contemporary times seem crucial for the international growth (internationalisation) of the firm (Reid, 1981; Andersson, 2000);
- due to the specific character of services, stages models are not applicable to the analyses of internationalisation of service firms (Grönroos, 1999, p. 292).

Few previous decades have caused that the global economy has undergone a dramatic change, and the "new economic landscape requires a combination of entrepreneurship, innovation, and internationalisation" (Hagen, Denicolai, & Zucchella, 2014, p. 111). The concept of 'international entrepreneurship' (IE) came into being in late 1980s, however the theory of IE was developed in mid 1990s, mainly by McDougall (1989), who together with Oviatt developed this theory in the following years (Oviatt & McDougall, 1994; McDougall, Shane, & Oviatt, 1994). International entrepreneurship has been developing very intensively (Al-Aali & Teece, 2014; Almor *et al.*, 2014; Covin & Miller, 2014; Hennart, 2014; Wach & Wehrmann, 2014, pp. 9-22). International entrepreneurship, linking two research domains – entrepreneurship theory and international business theory (McDougall-Covin, Jones, & Serapio, 2014; Zucchella & Sciabini, 2007; Coviello, McDougall, & Oviatt, 2011; Coviello, Jones, & McDougall, 2014; Wach & Wehrmann, 2014), is gradually beginning to emerge as the dominating approach within the internationalisation theory (the leading approach towards business internationalisation process) (Jones & Coviello, 2011; Coviello, Jones, & McDougall-Covin, 2014). International entre-

preneurship specifically examines and prioritises the role of the entrepreneur as a key factor in the internationalisation process of the firm, especially of SMEs alongside the external environment and the entrepreneurial process constituting the triad of international entrepreneurship or entrepreneurial internationalisation (Daszkiewicz, 2014; Wach, 2015).

The globalisation processes and the increasing role of global players resulted in the reorientation from the business internationalisation processes (Johanson & Vahlne, 1977; Johanson & Vahlne, 2009) to business globalisation process (Vahlne & Ivarsson, 2014, pp. 227-247), thus international entrepreneurship concept is currently included even in the traditional Uppsala model (Schweizer, Vahlne, & Johanson, 2010). This is clearly illustrated by Hurmerinta-Peltomäki (2004, pp. 72-73), who tries to put main international entrepreneurship concepts on the internationalisation–globalisation scale starting from an instant exporter, or an international new venture, and resulted in globalized business activities (born globals as the global start-ups).

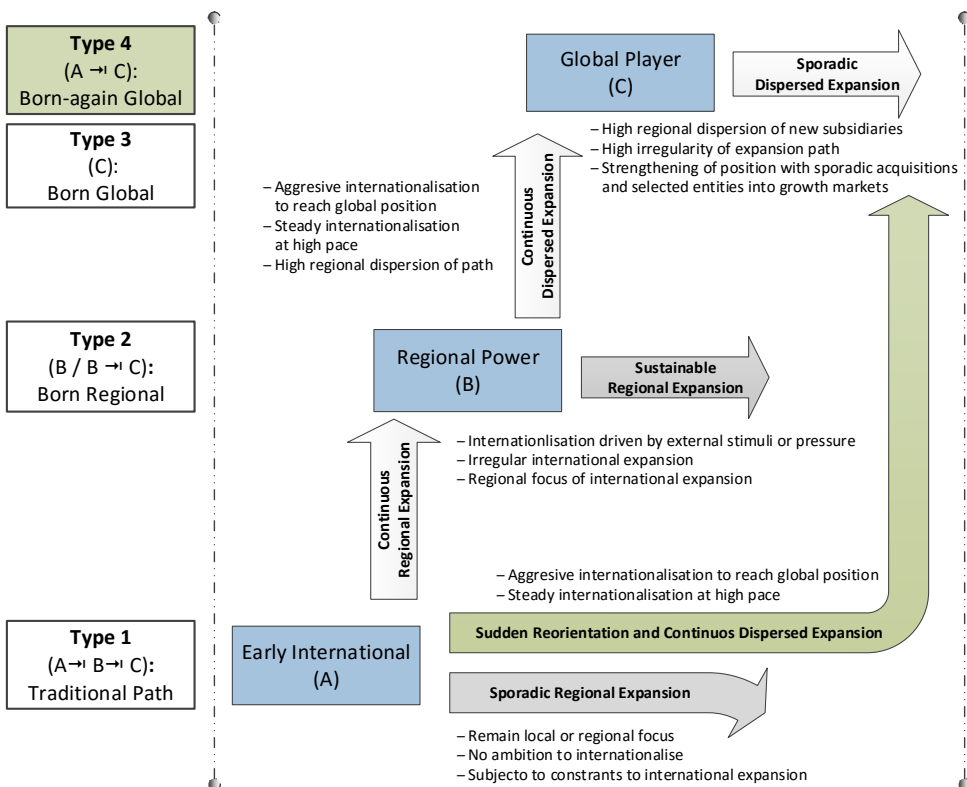


Figure 1. Four basic paths of internationalisation of the firm

Source: adapted and extended from Hutschenreuter, D’Aveni and Voll (2009, p. 65).

Hutschenreuter, D’Aveni and Voll (2009) identified three basic types (A, B, C) of internationalised firms (Figure 1), however it is worth extending the original model to four types (1, 2, 3, 4) of internationalisation paths. Firms that internationalise in a traditional

path through stages according to U-model assumptions (Type 1). On the contrary to this concept there are born globals (Type 3), which are firms that internationalise early and rapidly, which treat the global market as their target business arena from their inception.

Furthermore, Hutschenreuter *et al.* (2009) noticed two more types, which are also discussed in the recent literature. Within international entrepreneurship at least two or three more groups of concepts are being developed which are worth noting. Accelerated internationalisation or rapid internationalisation models concern traditional SMEs which are not interested in operating on the global market from the very beginning, however, the pace of their internationalisation is high (Kalinic & Forza, 2012). The other one is the concept of born regionals (Type 2) which are internationalised from the beginning, yet their scope concerns mainly the markets of neighbouring countries, whereby with time some of them develop their international activities (Hashai & Almor, 2004).

The concept of born-again globals (Type 4) by Bell, McNaughton, Young and Crick (2003) is also interesting and popular in the literature and can be treated as a supplementary fourth path. It concerns businesses initially operating on the domestic market, however, as a result of noticing opportunities on foreign markets their rapid internationalisation takes place, running from the moment of their transformation in an analogous manner as among born globals. Generally, these are often firms which come from traditional industries.

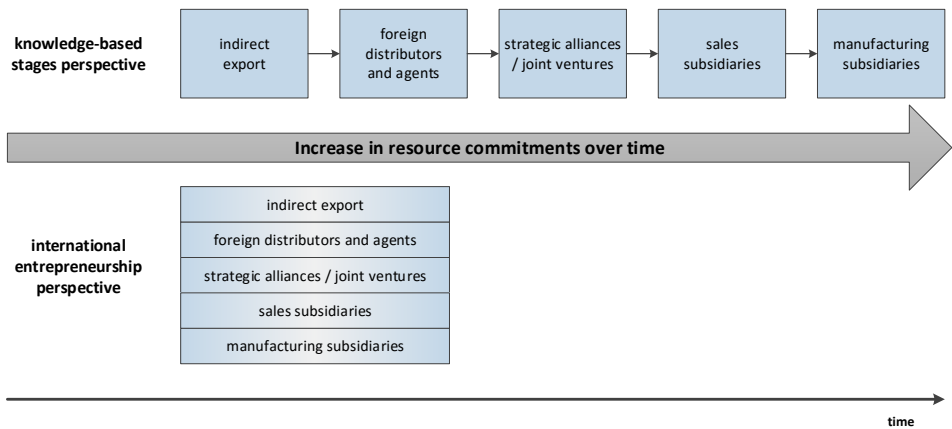


Figure 2. Time and internationalisation from two opposite theoretical perspectives

Source: adapted from Melén and Nordman (2009, p. 246).

Melén and Nordman (2009, p. 246) emphasized that stages models based on the concept of accumulation and implementation of knowledge differ considerably from international entrepreneurship models, as they are based on different research assumptions. The process theory is based on a phased incremental change, which is manifested in the use of more advanced entry modes into foreign markets with time, and studies implemented this perspective are dynamic (such investigations usually use case studies showing the process of internationalisation of the firm with time). By contrast, the research studies rooted in international entrepreneurship usually do not focus on the further or ongoing internationalisation process, which is the domain of the process theory (Figure 2), but they try to show the internationalisation process through the entrepre-

neurial prim, what is rather in static terms. The perspective of international entrepreneurship (nota bene also based on a case study method) focuses on one hand on the phenomenon of accelerated and early internationalisation, and on the other hand, on the use of entrepreneurial mechanisms across borders.

MATERIAL AND METHODS

The article contains the results of empirical studies that have been conducted under the grant OPUS 4 carried out in 2013-2016 at the Faculty of Economics and International Relations, Cracow University of Economics, and funded by the National Science Centre (NCN).

The main objective of the study is to discuss the pace of internationalisation and its empirical verification among Polish firms taking into account two factors – strategic thinking and familiness of the studied firms.

The sample was selected on the basis of the companies registered in Poland in the REGON register, of which 7100 companies were randomly selected to which the questionnaire was mailed. Of these companies, only 355 agreed to take part in the study. The sample contained only internationalised firms (which are at least exporters). The sample comprised of firms of all sizes. A theoretical return rate was 5%, however among 7100 randomly selected companies some of them were not internationalised or changed their postal address and/or their telephone number. The selected population consisted of 3313 firms, and the final study sample was *de facto* 10.7%.

In order to gather empirical material, a quantitative research method was applied. The main research method for non-experimental quantitative research, which was applied in this research project, was a research survey using a questionnaire for data collection with the intent of generalizing from a sample to a population. The survey was conducted in early 2015.

Computer-assisted telephone interviewing (CATI) was applied as the main survey method. This means that respondents (usually members of top management teams) answered the questions by phone while speaking to the pollster.

Managerial perceptions of firm-level variables are often used in entrepreneurship research (Naman & Slevin, 1993), and these perceptions can be obtained from interviews or from surveys using questionnaires. “One potential advantage of perceptual approaches is a relatively high level of validity because researchers can pose questions that address directly the underlying nature of a construct” (Lyon *et al.*, 2000, p. 1058).

The research hypotheses to be tested in this research study are as follows:

- H1:** Firms having an internationalisation strategy internationalize faster than those which do not have such a strategy.

In the literature there is a consensus that a business strategy impacts the international orientation of firms (Bell, Crick, & Yung, 2004), nevertheless it is necessary to study this problem in details. It can affect various aspects of internationalisation, including the pace/speed of internationalisation. So it seems to be interesting to check this relationship (strategy and pace of internationalisation).

- H2:** The average time of internationalisation measured from the establishment is the same for family and non-family firms.

There is an ongoing dispute in the literature and a lack of clear evidence. Not only globally, but even in the Polish context, there is some empirical evidence for faster internationalisation of family firms (Popczyk, 2013), while some empirical results show the opposite trend (Wach, 2014).

The study uses six different variables. The internationalization was measured by four different measures, namely:

- transnationality index (TNI) calculated as the average of foreign assets, sales and employment to the total ones and being expressed as a percentage (from 0 to 100%);
- internationalization speed or pace (INT_SPEED) stating how many years passed between the establishment of the firms and the first internationalisation of the firm (measured in years);
- internationalisation scope (INT_SCOPE) measuring on many foreign markets the firm operates.

The foreign ecological environment was measured by using 7-point Likert's scale (from 1 – hampering to 7 – stimulating). This study uses also various control variables, among them: being a family firm (0/1), being a born global (0/1), having an internationalisation strategy (0/1).

The statistical calculations were made by the use of the statistical software Statistica® PL v. 12.5. In the empirical study, the level of the statistical significance (alpha or α) for statistical hypotheses testing was considered as 0.05. Apart from basic descriptive statistics, in order to verify the assumed hypotheses the following inferential statistical tests were applied: the Mann-Whitney U test; Student's t test, as well as the Chi-squared independent test.

RESULTS AND DISCUSSION

Only one in five surveyed firms declares to have the formalized internationalisation strategy, and more than half of the firms did not have any strategy either formal, or even informal. Using the independence Chi-squared test (26.47618, $df = 3$, $p = 0.0001$), we can conclude that there is a relationship between the internationalisation strategy and the size of the firms. The larger the firms are, the more often they have an internationalisation strategy (26.0% micro, 39.9% small, 55.7% medium-sized, 71.7% large enterprises). The Cramer's V value (0.27) testifies rather moderate strength of the relationship between the size of the firm and an internationalisation strategy implementation.

There are statistically significant differences in the pace of internationalisation among firms with and without an internationalisation strategy (H1), although it should be noted that not with a typical, but with an acceptable level of significance ($t = 1.6855$, $df = 342$, $p = 0.092$). The average rate of internationalisation of firms having an internationalisation strategy is lower and is over 5 years, while in other companies, it is almost 8 years.

From the theoretical perspective, the pace of internationalisation is closely associated with the firms referred to as born globals, the time limit, according to the literature, is in general 3 years (however other limits also occur). The two-dimensional distribution taking into account two variables, namely the internationalisation strategy and born globals, exposes the lack of any statistically significant differentiations. The distributions

of observations are in fact almost equal (variables are independent), as indeed it is also confirmed by the nonparametric chi-squared test ($0.10, df = 1, p = 0.75$).

The calculations of Pearson's linear correlation can put also a new overview onto the pace of the internationalisation of the studied firms and the following conclusions can be drawn:

- The speed of internationalisation is correlated weakly to the internationalisation scope ($r = 0.25, p < 0.05$).
- There is a weak negative correlation between the speed of internationalisation and the level of the internationalisation measured by TNI ($r = - 0.2, p < 0.05$). The more slowly the firm internationalizes, the more internationalized it is.

It seems useful to find some factors why studied firms internationalize faster and earlier than others. The collected empirical data and statistical calculations also allow to draw other valuable cognitive conclusions. Ecological awareness of foreign consumers and environmental regulations being in force outside Poland stimulate firms to internationalize more quickly and early (measured by the speed of the internationalisation process), which was confirmed by the Mann-Whitney U statistics ($p = 0.018$). There are two ways of explanations these results. Polish born globals can run away from the domestic ecological and environmental standards into foreign markets, where such regulations are more liberal (e.g. Eastern markets), which should be summaries as a push factor (Daszkiewicz & Wach, 2014). The second explanation is much more optimistic. Polish born globals are so well prepared to high ecological and environmental standards that it stimulates their internationalisation into other countries (i.e. Western markets), and such a situation is a typical pull factor. In order to answer this controversies, it is necessary to check into what foreign markets the studied firms entry, but unfortunately the questionnaire didn't include such a question.

Concerning the second hypothesis (H2), it was proved that the family firms internationalize faster than non-family firms ($t = 2.1, df = 342, p = 0.03$). The average pace of internationalisation of family firms is 4.6 years, while for non-family firms it is 8.1 years on the average. The results are very interesting as there is an unsolved ongoing discussion in the literature, even in Poland. Some empirical results, conducted previously in Poland, prove it (Popczyk, 2013), while others are against such a relationship (Wach, 2014).

CONCLUSIONS

Some basic conclusions based on the survey results and statistical calculations can be drawn, however they must be treated as one of the empirical evidence on the map of various empirical results from Poland.

The hypothesis H1 was confirmed. Firms having an internationalisation strategy rather internationalise faster than these lacking such a strategy, taking into account the average number of years elapsed from its founding to the first internationalisation. In dichotomous terms taking into account born globals (up to 3 years) and slower internationals (longer than 3 years), such a relationship cannot be indicated on the basis of the empirical results. Strategic thinking seems to be very important while going international. A well thought-out strategy can stimulate the process of internationalisation. There-

fore, it is suggested that decision makers, especially entrepreneurs, should pay more attention to strategic aspects, even in early stages of development or early internationalisation.

The hypothesis H2 was rejected as it was proved that the average time of internationalisation measured from the establishment is shorter in case of family firms than non-family firms. On the average the investigated family firms internationalised within less than 5 years since their establishment. It is in line with empirical results of Popczyk (2013, p. 10 and 215), but against the previous studies of Wach (2014). Nevertheless, further detailed research using a much wider sampling of internationalised family firms is needed in order to present more detailed and precise conclusions.

Like any study, especially the empirical investigations, the analyses presented in this article have their research limitations. They are mainly conditioned by sampling, applied measures and analytical tests. The questionnaire primarily necessitated the use of managerial perception, that is not operated on quantifiable data, but only on the perception of the studied management staff (which is natural in questionnaires), hence it is not possible to absolutise the obtained results. Further in-depth studies are needed.

Results presented in this article are a merely starting point for further detailed analyses and investigations. It seems reasonable to research into the various determinants of the speed of internationalisation taking the great varieties of internal and external factors, especially the factors stimulating born globals.

REFERENCES

- Al-Aali, A., & Teece, D.J. (2014). International Entrepreneurship and the Theory of the (Long-Lived) International Firm: A Capabilities Perspective. *Entrepreneurship Theory and Practice*, 38(1), 95-116. doi: 10.1111/etap.12077
- Almor, T., Tarba, Sh.Y., & Margalit, A. (2014). Maturing, Technology-Based, Born-Global Companies: Surviving Through Mergers and Acquisitions. *Management International Review*, 54, 421-444. doi: 10.1007/s11575-014-0212-9
- Andersson, S. (2000). The Internationalisation of the Firm from an Entrepreneurial Perspective. *International Studies of Management & Organization*, 30(1), 63–93.
- Bell, J., Crick, D., & Young, S. (2004). Small Firm Internationalisation and Business Strategy: An Exploratory Study of 'Knowledge-intensive' and 'Traditional' Manufacturing Firms in the UK. *International Small Business Journal*, 22(1), 23–56.
- Bell, J., McNaughton, S., Young, S., & Crick, D. (2003). Towards Integrative Model of Small Firm Internationalisation. *Journal of International Entrepreneurship*, 1(4), 339-362.
- Cannon, T., & Willis, M. (1981). The Smaller Firm in International Trade. *European Small Business Journal*, 1(3), 45–55.
- Cavusgil, S.T. (1994). A Quiet Revolution in Australian Exporters. *Marketing News*, 28(11), 18–21.
- Coviello, N.E., Jones, M.V., & McDougall-Covin, P. (2014). Is International Entrepreneurship research a viable spin-off from its parent disciplines? In A. Fayolle & P. Riot (Eds.), *Institutionalization of Entrepreneurship: Hopes and Pitfalls for Entrepreneurship Research*. Routledge.
- Coviello, N.E., & McAuley, A. (1999). Internationalisation and the Smaller Firm: A Review of Contemporary Empirical Research. *Management International Review*, 39(3), 223–256.

- Covin, J.G., & Miller, D. (2014). International Entrepreneurial Orientation: Conceptual Considerations, Research Themes, Measurement Issues, and Future Research Directions. *Entrepreneurship Theory and Practice*, 38(1), 11-44. doi: 10.1111/etap.12027
- Crick, D., Chaudhry, Sh., & Batstone, S. (2001). An Investigation into the Overseas Expansion of Small Asian-Owned U.K. Firms. *Small Business Economics*, 16(2), 75-94.
- Daszkiewicz, N. (2014). Internacjonalizacja polskich przedsiębiorstw rodzinnych z perspektywy przedsiębiorczości międzynarodowej. *Przedsiębiorczość i Zarządzanie*, XV(7[1]), 243-251.
- Daszkiewicz, N., & Wach, K. (2014). Motives for Going International and Entry Modes of Family Firms in Poland. *Journal of Intercultural Management*, 6(2), 5-18.
- Grönroos, C. (1999). Internationalisation Strategies for Services. *Journal of Service Marketing*, 13(4-5), 290-297.
- Hagen, B., Denicolai, S., & Zuchella, A. (2014). International entrepreneurship at the crossroads between innovation and internationalisation. *Journal of International Entrepreneurship*, 12(2), 111-114.
- Hashai, N., & Almor, T. (2004). Gradually Internationalizing 'Born Global' Firms: An Oxymoron?. *International Business Review*, 13(4), 465-483.
- Hennart, J.-F. (2014). The Accidental Internationalists: A Theory of Born Global. *Entrepreneurship Theory and Practice*, 38(1), 117-135. doi: 10.1111/etap.12076
- Hurmerinta-Peltomäki, L. (2004). Conceptual and Methodological Underpinnings in the Study of Rapid Internationalizers (chapter 3). In M.V. Jones & P. Dimitratos (Eds.), *Emerging Paradigms in International Entrepreneurship*. The McGill International Entrepreneurship series. Cheltenham, UK – Northampton, MA: Edward Elgar.
- Hutschenreuter, T., D'Aveni, R., & Voll, J. (2009). Temporal and Geographical Patterns of Internationalisation – an Exploratory Analysis. *Multinational Business Reviews*, 17(4), 45-76.
- Johanson, J., & Vahlne, J.-E. (1977). The Internationalisation Process of the Firm: A Model of Knowledge Development and Increasing Foreign Commitments. *Journal of International Business Studies*, 8(1), 23-32.
- Johanson, J., & Vahlne, J.-E. (2009). The Uppsala Internationalisation Process Model Revisited: From Liability of Foreignness to Liability of Outsidership. *Journal of International Business Studies*, 40(9), 1411-1431.
- Jones, N.V., Coviello, N., & Tang, Y.K. (2011). International Entrepreneurship Research (1989-2009): A Domain Ontology and Thematic Analysis. *Journal of Business Venturing*, 26(6), 632-659.
- Kalinic, I., & Forza, C. (2012). Rapid Internationalisation of Traditional SMEs: Between Gradualist Models and Born Globals. *International Business Review*, 21(4), 694-707.
- Lyon, D.W., Lumpkin, G.T., & Dess, G.G. (2000). Enhancing Entrepreneurial Orientation Research: Operationalizing and Measuring a Key Strategic Decision Making Process. *Journal of Management*, 26(5), 1055-1085. doi: 10.1177/014920630002600503
- McDougall, P.P. (1989). International versus Domestic Entrepreneurship: New Venture Strategic Behavior and Industry Structure. *Journal of Business Venturing*, 4(6), 387-400. doi: 10.1016/0883-9026(89)90009-8
- McDougall, P.P., Shane, S., & Oviatt, B.M. (1994). Explaining the Formation of International New Ventures: The Limits of Theories from International Business Research. *Journal of Business Venturing*, 9(6), 469-487. doi: 10.1016/0883-9026(94)90017-5
- McDougall-Covin, P., Jones, M.V., & Serapio, M.G. (2014). High-Potential Concepts, Phenomena, and Theories for the Advancement of Entrepreneurship Research. *Entrepreneurship Theory and Practice*, 38(1), 1-10. doi: 10.1111/etap.12090

- Mejri, K., & Umemoto, K. (2010). Small- and Medium-Sized Enterprise Internationalisation: Towards the Knowledge-Based Model. *Journal of International Entrepreneurship*, 8(2), 156–167.
- Melén, S., & Nordman, E.R. (2009). The internationalisation modes of Born Globals: A longitudinal study. *European Management Journal*, 27(4), 243–254.
- Morgan, R.E., & Katsikeas, C.S. (1997). Theories of International Trade, Foreign Direct Investment and Firm Internationalization: A Critique. *Management Decision*, 35(1), 68–78.
- Naman, J.L., & Slevin, D.P. (1993). Entrepreneurship and the concept of fit: A model and empirical tests. *Strategic Management Journal*, 14(2), 137–153. doi: 10.1002/smj.4250140205
- Oviatt B.M., & McDougall, P.P. (1994). Towards a Theory of International New Ventures. *Journal of International Business Studies*, 25(1), 44-64.
- Popczyk, W. (2013). *Przedsiębiorstwa rodzinne w otoczeniu globalnym. Analiza porównawcza ekspansji międzynarodowej firm rodzinnych i nierodzinnych z rynku NewConnect*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
- Ratajczak-Mrozek, M. (2015). Czas w badaniach nad internacjonalizacją przedsiębiorstw. *Gospodarka Narodowa*, LXXXV/XXVI(4), 49–67.
- Reid, S.D. (1981). The Decision-Maker and Export Entry and Expansion. *Journal of International Business Studies*, 12(2), 101–112.
- Ruzzier, M., Hisrich, R.D., & Antoncic, B. (2006). SME Internationalisation Research: Past, Present, and Future. *Journal of Small Business and Enterprise Development*, 13(4), 476–497.
- Schweizer, R., Vahlne, J.-E., & Johanson, J. (2010). Internationalisation as an Entrepreneurial Process. *Journal of International Entrepreneurship*, 8(4), 343–370.
- Schwens, Ch., Steinmetz, H., & Kabst, R. (2010). Growth and Internationalisation: Renewable Energy and New Technology-Based Firms. In A. Gerybadze, U. Hommel, H.W. Reiners, & D. Thomaschewski (Eds.), *Innovation and International Corporate Growth* (pp. 113–123). Heidelberg–New York: Springer.
- Vahlne, J.-E., & Ivarsson, I. (2014). The globalization of Swedish MNEs: Empirical evidence and theoretical explanations. *Journal of International Business Studies*, 45(3), 227-247.
- Wach, K. (2014). Familiness and Born Globals: Rapid Internationalisation among Polish Family Firms. *Journal of Intercultural Management*, 6(3), 177-186.
- Wach, K. (2015). Entrepreneurial Orientation and Business Internationalisation Process: The Theoretical Foundations of International Entrepreneurship. *Entrepreneurial Business and Economics Review*, 3(2), 9-24. doi: 10.15678/EBER.2015.030202
- Wach, K., & Wehrmann, C. (2014). Entrepreneurship in International Business: International Entrepreneurship as the Intersection of Two Fields (chapter 1). In A.S. Gubik & K. Wach (Eds.), *International Entrepreneurship and Corporate Growth in Visegrad Countries* (pp. 9-22). Miskolc: University of Miskolc.
- Wąsowska, A., Obloj, K., & Ciszewska-Mlinarič, M. (2016 – in press). Virtuous and Vicious Learning Cycles in the Internationalisation of Emerging Market Firms. *European Journal of International Management*, 10(1), 105-125. doi: 10.1504/EJIM.2016.073964
- Wickramasekera, R., & Oczkowski, E. (2006). Stage Models Re-visited: A Measure of the Stage of Internationalisation of a Firm. *Management International Review*, 46(1), 39-55.
- Zucchella, A., & Scabini, P. (2007). *International Entrepreneurship – Theoretical Foundations and Practice*. New York: Palgrave Macmillan.

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Internationalisation at Home: Exploiting the Potential of the Non-nationals' and Expatriates' Community

Andreja Jaklič, Paraskevi Karageorgu

ABSTRACT

Objective: The paper explores the first-time internationalisation strategy and discusses whether firms could actually begin internationalisation at home without crossing the border by approaching the international expatriates' community in the home city/market.

Research Design & Methods: The concept of internationalisation at home is studied through the case study method. An example of a public company from the creative industry in the capital city from the Central and Eastern European region is studied.

Findings: The expatriates' community, so far often neglected market segment, has a rising potential in several European cities. The results highlight a positive impact on performance after approaching the expatriates' community. Organisational learning effects result in improved and stabilised sales and strengthened firm-specific advantages.

Implications & Recommendations: Internationalisation at home is disruptive innovation, especially appropriate for enterprises under high resource constraints. It is fast, cost efficient and has positive externalities. The international expatriates' community in the home city/market offers fast organisational learning and a testing area for enterprises.

Contribution & Value Added: Internationalisation at home adds to the existing understanding of internationalisation. The findings that firms could begin the organisational learning process of internationalisation before or even without the first foreign entry and proposals for the integrating expatriates' community into the marketing strategy may influence future internationalisation paths.

Article type: research paper

Keywords: internationalisation at home; international strategy; expatriates' community; market segmentation; cross-national consumer

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INTRODUCTION

Rising globalisation has stimulated rapid internationalisation of enterprises in the last few decades. The dynamics of internationalisation is particularly high in countries and regions with intensive economic integration processes (such as the enlarging European Union and its single market), in the emerging markets and countries that have gone through an intensive economic, social and political transition process. Not only large multinational enterprises, but also small and medium-sized enterprises (SMEs) are increasingly active in the international arena and the phenomenon has been widely researched in the international business literature over the past three decades (Andersen, 1993; Coviello & McAuley, 1999; Fillis, 2001; Leonidou & Katsikeas, 1996; Westhead *et al.*, 2001; Wright *et al.*, 2007). The internationalisation patterns have been changing and diversified. The internationalisation stages or the incremental, multi-stage process of internationalisation – as defined in Uppsala school (Johanson & Vahlne, 1977, 1990, 2009; Johanson & Wiedersheim-Paul, 1975) or evolutionary models are often modified and some firms may internationalise rapidly, skipping some or many of the intermediate steps (Madsen & Servais, 1997; Oviatt & McDougall, 1994; Turnbull, 1987). A rich stream of the literature on born globals and rapid internationalisation (Madsen & Servais, 1997; Oviatt & McDougall, 1994; Turnbull, 1987; Knight & Cavusgil, 1996; Crick & Jones, 2000) provides an overview of diverse internationalisation strategies and identify areas that deserve further attention.

While many of the studies evidenced an increased speed of foreign entry, a larger number of markets, and entry to more distant markets already in the early stage or at the beginning of internationalisation (Madsen & Servais, 1997; Oviatt & McDougall, 1994; Bell *et al.*, 2004; Dikova *et al.*, 2016), few of them mentioned the option to »start *internationalisation at home*«. Some very recent studies describing this possibility are related to higher education industry and/or e-learning with empirical evidence limited to cases studies of universities/colleges (Sierra, 2013; Mayoral & Alvarez, 2014; Yukiko, 2015). Although they stress the importance of targeting a specific market segment for the success of such a strategy (Yukiko, 2015), examples show marketing and internationalisation strategies developed on the country-based market segmentation. There is an idea (similar to tourism industry) to “overcome distance” and attract customers from foreign markets - and not to non-nationals or foreigners (already present or living) in the home country. The existing studies on the internationalisation process also rarely relate the foreign entry strategy with special or adapted marketing segmentation. Business opportunities are normally sought within the selected target markets and market segmentation used in internationalisation strategies is rarely beyond geographical (national) clustering. The algorithms in the cluster analysis and market segmentation predominantly used in marketing agencies, multinational enterprises (also European enterprises - see, for example, El-Kahal in Mercado 2007) can hardly detect a heterogeneous group of consumers. Although the values and lifestyles have been increasingly considered in marketing segmentation (Mitchell, 1983; Beaty *et al.*, 1988; Yankelovich & Meer, 2006), nationalities remain the key variable for segmentation. The theory and practice have therefore overlooked the rising segment of the non-nationals and expatriates’ community. Both the »*internationalisation at home*« and the »*expatriates’ community in marketing segmentation*« are underexplored topics in

the international business (IB) and the international marketing literature, and thus the paper aims to fill these gaps.

Our hypothesis is that *internationalisation at home*, by using the rising potential of the non-nationals and *expatriates' community market segment*, can become a starting point for internationalisation, before or even without the first foreign entry. It offers the potential for organisational learning, a potential to discover an individual country's/enterprise's/product's potential when starting internationalisation and a marketing segment to be followed in further international growth.

The segment of the non-nationals' and expatriates' community and its potential for implementing the strategy of internationalisation at home was identified in a case study from the entertainment sector, The Art Cinema in the capital of Slovenia, Ljubljana, whereas the cinema product is highly internationalised and therefore reaches the demands of a 'cross-national' consumer. The selected Art Cinema has a strategy of becoming a high quality European cinema, the strategy that has been further developed with the inclusion of Kinodvor in the European Cinemas Network, and therefore represents an excellent example to go beyond Slovene residents and reach also the EU citizens' demand. The European Union (EU) with its single market promotes four freedoms, increased mobility and »Europeanisation«, which enhance the creation of multicultural communities, the introduction of new cultures and the acceptance of new models of lifestyles. Europe, and in particular Central and Eastern European countries (CEEC) that experienced rapid social and economic reforms processes resulting in an increased consumer income and demand for various products which have led to the multinational interest in these countries, thus represents excellent opportunities for exploring and targeting the expatriates' community in marketing segmentation. »Europeanisation« (Cernat, 2006) opened a possibility for the CEEC to open their environment for the multicultural community, to create international products and cultures by adopting a welcoming cross-national approach, and can become a valuable competitive advantage for Eastern Europe.

Internationalisation by using the potential of non-nationals' and expatriates' communities in the home market represents a challenge for the creative art industries in the CEEC, a turbulent and low-internationalised sector facing the rising demand. Its major boost for development occurred in the 90s after the fall of communism, when alternative, diverse and multi-layered types of art and culture flooded the Eastern countries. Re-shaping of spaces such as factories into galleries, theatres, etc. has been a normal cultural development. Extremely fast developing post-socialist societies have left behind cultural propaganda and censorship and have made place for cultural liberalism, euphoria trying to resemble the model established by culturally dominant cities, such as London and the US metropolises, combining cultural resources and the exploitation of urban renewal, tourism and image of the economic development, that have become a symbol of freedom and diversity, labels attached to the Western culture values or the so-called developed world. However, the non-nationals as a separate marketing segment is not only relevant for enterprises operating in creative industries (or) in the domestic market but much wider.

Using the mixed-method case study approach, the analysis (i) identifies the weaknesses of the existing market segmentation (ii) characterises the expatriates' community as a new market segment and (iii) presents a case study that demonstrates the gap between the existing and potentially used segmentation and the strategy for including the

expatriates' community as a new market segment into business (marketing) strategy. The presented strategy highlights the potential for improved business performance and capacity building in culture and creative industries that might serve as a complement to other industries. Internationalisation at home may be seen as disruptive innovation that creates a new market and a value network. The concluding discussion addresses the weaknesses of the existing market segmentation in the European markets and the relevance of the expatriates' community segment for developing firm-specific advantages and location-specific advantages.

LITERATURE REVIEW

Most authors view internationalisation as a dynamic and evolutionary process by which firms increase international transactions and commercial engagement with other countries (Beamish, 1990). Often internationalisation is studied on basis of foreign direct investment theories (Anderson & Gatignon, 1986; Buckley & Casson, 1993) which explain this phenomenon as the firm's choice of optimal location and structure for each stage of production to minimize transaction costs. Transactions with high risk and high resource commitments may be internalized within the enterprise's organisational structure (Anderson & Gatignon, 1986; Buckley & Casson, 1993), leading to an evolutionary process that reflects incremental investments as managers learn about new market environments (Douglas & Craig, 2011; Newbold *et al.*, 1978). Although high relevance of transaction costs and resources have been identified in several theoretical concepts explaining internationalisation (internalization theory, transaction cost theory, resource based theory), *internationalisation at home* have not been seen as an option (or stage) in internationalisation strategy, also due to definitions above presented.

Internationalisation at Home

More recent literature presents the possibility of *internationalisation at home*. Few existing examples (Sierra, 2013; Mayoral & Alvarez, 2014; Yukiko, 2015) found in the academic journal data bases (Jstore, EBSCOhost and Proquest) are related to internationalisation in education and concentrate more on using technology and e- services (for example, e-learning and e-education) to overcome distance and not the presence of "foreign-consumers" in the domestic market. Internationalisation strategies - also for the first-time internationalisation (and even in the above mentioned studies or projects) often rely on the existing marketing segmentation or cross-country comparative market analysis and rarely demand new marketing segmentation studies.

Although the marketing segmentation analysis is implicitly a part of internationalisation plan(s), there are few contributions that relate these two concepts or tools in marketing segmentation that would be especially appropriate for the first time internationalisation. The starting point and a "classical" recipe for making a strategic plan for foreign entry in IB textbooks is normally a country analysis (see for example Cavusgil *et al.*, 2008).

However, as suggested by Agarwal (2003), a country analysis to discover the segment for international marketing using the gross national product per capita and factors such as economy, politics and health are highly limiting. By using Hassan's and Katsanis' research from 1991, Agarwal identified the weaknesses of such a model among country-specific marco-variables; the lack of consumer-behaviour variables; the assumed homogeneity of

consumers within the country segments; and the overlooking of the existence of homogeneous segments that exist across national boundaries (Agrawal, 2003). All these three weaknesses are extremely important for our segmentation proposal, and in many terms the paper is an attempt to overcome them.

Other suggestions for entering new markets include the Kale and Sudharshan two-step approach by Kale and Sudharshan (1987) and Kreutzer (1988), which includes the choice of the potential countries and the implementation of the in-country segmentation, the various in-country segments are compared across countries and the ones similar in the country are consolidated into strategically equivalent global segments.

However, we propose the extension of this idea. At least in the European context these two steps can be combined into one, by using the expatriates' community within a country and combine the in-country segmentation with the choice of potential countries. Ideas how important "foreigners" or non-nationals can be for outward internationalisation are rarely presented (Maister, 2015) and the segment of the expatriates' community neglected in internationalisation strategies.

The advantages of internationalisation at home are multi-fold and may result in (i) cost efficiency and (ii) higher dynamics (speed) of internationalisation process. As the segment is at the direct reach of an enterprise, this may lower the cost of distribution and communication, prevent high transaction costs (that are present with foreign entry). Firms may become familiar with foreign consumer behaviours, attitudes and their needs without moving beyond their border, and they can also assess the attractiveness of their brands among foreign consumers. Experience and adaptation may result in faster learning and knowledge that can be used for further international growth and market development or targeting similar consumers in other countries or globally (as proposed by Hassan & Katsanis, 1991).

Marketing Segmentation Analysis and the Mobility of Consumers

The principle of segmentation in marketing, introduced by Wendell Smith (1956/1995) as an alternative to the product differentiation strategy, has been largely accepted by marketing practitioners over the past years and follows the rule to find and understand a marketing segment and to communicate with it with the content and style most likely to appeal to it (Narin & Berthon, 2003). Different variables have been used to determine a marketing segment – such as shared membership, age, gender, income, geography and buyer behaviour.

Narin and Berthon proved the supremacy of the personality variable when it comes to consumer behaviour. These authors have followed the development of these phenomena since the end of World War II and its 'transformation' into categories, such as "lifestyle", "psychographic", "attitudes and activities" and "values" (Narin & Berthon, 2003). A specific part of their research is the argument of the Advertising Research Foundation (ARF) which states that people tend to be consistent in coping with their environment. This argument is important also for this paper. If individuals react fairly consistently in a variety of environmental situations, these generalised patterns of response or modes of coping with the world can be called personality that is transferrable. In fact, the pattern of people moving from one country to another highly influences their consumer behaviour. On the one hand, they carry the 'personality traits' of their environment; on the other hand, they adopt new consumer behaviours in coping with their new environment. In both

cases, they represent new consumers – more internationalised and mobile - who are influenced by these patterns. The potential of this group is based on a regular flow as a consistent number of people moves into another country every year.

These patterns need to be analysed and a potential for marketing segment further evaluated. They are relevant for a number of sectors: from real estate agencies to food chains and entertainment. For example, we have already witnessed how short-term mobility programmes in Europe have changed the real estate renting practices where renting legally an apartment for less than a year seemed impossible before, while it is fully normal now. The online services for expatriates (such as InterNations or expatriates.com) further demonstrate the need.

Market segmentation with the cluster principle has been widely used in marketing. Values and lifestyles have been increasingly considered in marketing segmentation (for example, VALS developed by Mitchell, 1983; Beaty *et al.*, 1988; Yankelovich & Meer, 2006), however nationalities (and other traditional demographic traits) keep the importance in the segmentation analysis. The concept of Euro clusters, for example, was developed according to similar economic, demographic and/or lifestyle characteristics (Vander Merwe and l’Huillier in Mercado 2007). However, the variation of this cluster segmentation is basically regional segmentation that is losing relevance in the EU. Cultural integration in Europe is speeding up, and clusters combining among personal characteristics, industries and interests shall be a new field of marketing and product concentration, or, in other words, segmentation according to lifestyles, interest, tastes, attitudes and values, as El-Kahal suggested already in 1998 (El-Kahal in Mercado, 2007). Segmentation working closely with variables, such as age, socio-economic background, mobility of consumers, and profiles could reveal latent segments and bring into a new kind of ‘inclusive’ marketing. Researchers can examine the relation of these variables to the consumption of specific products even within one country. Lifestyle and values of the “expatriates’ community” may be more heterogeneous (than traditionally defined clusters), but the combination of variables can reveal the way in which such (mobile) consumers react to product/service offerings, advertising, packaging, pricing, personal selling, and retailing. An effective marketer should be aware of this influence and incorporate it when developing marketing strategy for non-nationals and when planning products (Beaty *et al.*, 1988).

The proposed new approach corresponds with the definition given by Agarwal (2003), that “the success of any segmentation approach depends on the ability to find segments in which within-group difference in individual demand functions are smaller than between-group demand functions”. Our proposal follows the idea that “demand functions themselves should be the theoretical basis for segment definition” (Dikson & Ginter in Agrawal, 2003).

Similarly, as firms and marketing specialists try to explore the global market and try to identify the global market segment(s) and reach them with products and marketing programs that meet common needs of these consumers, segmentation could be done as the initial steps in analysing the non-nationals’ community consumer behaviour within the home market first, and then identify the specific needs of such groups and meet them.

Another theoretical basis useful for this approach is the consumer-product based relations developed by Hofstede, Steenkamp and Wedel in 1999. International segmenta-

tion studies based on macro-level geographic, political, economic and cultural data provide only insights into which groups of countries can be potentially targeted, but no information about which groups of consumers within those countries will respond to the marketing efforts. Using consumers, instead of countries, as the basis for identifying international segments, would therefore increase the effectiveness of a marketing strategy and internationalisation.

This concept is close to the one of the 'global consumer' – a transnational consumer with similar characteristics and aspirations (Walters & Toyne, 1989; Yavas, Berhage, & Green, 1992). Only that this consumer is to be found in a specifically targeted transnational group within one country. The same concept that is used to reach a group of consumers with a similar profile across countries is used in the internationalisation not outside, but inside, in the home market. As in the cross-national segmentation consumers in different countries are grouped based on similarities in their needs, ignoring the country borders (Kamakura, Hofstede & Yavas in Hofstede, Wedel & Steenkamp, 2002), our case keeps the awareness of the borders and identifies the cross-national segmentation differences within a country. This proposal also surpasses the limitations of the model of spatial segmentation which presents the dependence of the identification of a cluster on the geographical space similarities and therefore an inevitable presumption of homogeneity (Hofstede, Wedel & Steenkamp, 2002). The spatial segmentation in terms of a cross-national consumer (Steenkamp & Baumgartner, 1998) behavioural similarities, such as the similar physical and psychological landscape represents only a characteristic for starting the internationalisation at home marketing strategy.

The Potential of the Non-Nationals' and Expatriates' Community Market Segment

Free mobility has influenced the creation of non-nationals' and expatriates' communities within countries all over Europe. This phenomenon is developing in terms never seen or experienced before. Exchanges for students, teachers, professors and workers, the facilitated labour mobility across Europe etc. has made out of every big to medium city a place with the existing international communities. This community is formed even by local residents who were abroad and once they are back they feel that they belong to an 'international' area of cultural exchange. The fact that multicultural collaboration is boosting creativity, innovation and progress is widely recognized in business literature, recently also by Alison Cook and Christy Glass who prove that firms with a traditional CEO but a diverse board are most successful at innovating (Cook & Christy, 2015). The possibility of the local management to have this experience is therefore of extreme importance. Relations with international audience/customers are an important element for developing international marketing and different segmentation. Establishing the relations with the expatriates' community, in this case a specific segment being the non-nationals' community within the home market, can thus be seen as a part of market research and development. This market segment and internationalisation "at home" may enhance firm growth and the likelihood of survival, especially when domestic markets are small, mature or highly competitive (Coviello & Munro, 1995).

While the personality variables are unstable and predisposed to changes, the free mobility and movement provide exactly the opposite pattern in consumption behaviour. On the first look, people with different cultures are bound in their consumer behaviour and

personality by one characteristic, i.e. 'foreigner' that easily gets into the spiral of consuming two types of products:

1. **Products that are familiar**, such as bank products, mobile operators, food chains, etc. (it is more likely that a consumer will open a bank account in the same bank abroad that he uses at home or an internationally established bank, therefore, cross-national loyalty is a possible new segment of a brand's marketing). Nairn and Berthon have conducted a number of studies that have shown that the consumer's mind is not a blank sheet awaiting advertising but already contains unconscious memories of product purchasing and usage. Therefore, the processing of advertising messages feeds back to the experience which in our marketing segment has a key role (Nairn & Berthon, 2003).
2. **Products that help integration** (food, clothes, music, entertainment, local popular services) – therefore, the integration development can become a new segment of brand strategy to attract new customers. Thus, promotion of integration may contribute to corporate social responsibility (CSR) as well, as enterprises are a part of the integrative and anti-discrimination socio-economic process.

These two different types of products represent a combination between standardisation and adaptation product strategy. In this case, the beneficial use of certain product increases contributes to the consumers' value and in this way creates an added value, non-existent before. That increases competitiveness as well, as "values underlie a large and important part of human cognition and are among the most central determinants of consumer behavior" (Steenkamp, Hofstede & Wedel, 1999).

The commonality of the English language is of crucial importance for this market segmentation. Becoming the language adopted by international communities to communicate between each other is the method of finding their way in the new environment – therefore presents, books, menus introducing information in English are becoming prioritising products/services.

The European youth consumption is an example that can be used in order to explore the connection between the two already explained approaches (the socio economic category – age and identifying personal characteristics of the youth). Multinational companies have already tried to explore this segment of marketing strategies in terms of music tastes, food and drink habits, fashion, and sports (for example Nike). Mercado gives an example of successful marketing of the Swedish company IKEA which is targeting at young consumers all over Europe, combining the European tradition and following their lifestyle and quickly changeable tastes. However, even IKEA's has marginalised and to some extent even neglected the non-nationals in European countries. Despite being an international brand, it does little to attract the non-nationals to its stores abroad (if an Italian is in Austria and wants to check the availability of the product range, dimensions, order a product, arrange its delivery and so on, he can do so only in German and cannot check the local supply in English on the web page), which confirms the unexploited potential of the expatriates' community consumers and market development. Internationalisation is predominantly viewed in spatial/geographical terms.

The potential of this market segment can be quickly revealed by migration statistics, showing a regular and increasing flow of people who move into another country every year (Eurostat, 2014a, 2014b):

- The EU level reveals a significant segment of such customers; in the year 2013 the Member States issued around 2.36 million first residence permits to third country nationals. According to Eurostat, this represents a 12% increase of permits compared to the previous year when around 260 thousand more permits were issued (Eurostat 2014a).
- On 1 January 2013 in absolute terms, the largest numbers of non-nationals living in the EU were found in Germany (7.7 million people), Spain (5.1 million), the United Kingdom (4.9 million), Italy (4.4 million) and France (4.1 million). Non-nationals in these five EU Member States in total represented 77% of the number of non-nationals living in the EU-27, while the same five Member States had a 63% share of the EU's population. In relative terms, the highest share of non-nationals in the EU-27 Member States was in Luxembourg (44% of the total population). A high proportion of non-nationals (10% or more of the resident population) was also observed in Cyprus, Latvia, Estonia, Ireland, Austria, Belgium and Spain. In total, in the EU in 2013, the EU-27 foreign population (people residing in an EU-27 Member State with citizenship of a non-member country) was 20.4 million, representing 4.1% of the EU-27 population. In addition, there were 13.7 million people living in an EU-27 Member State on 1 January 2013 with the citizenship of another EU-27 Member State (Eurostat, 2014b), which shows the considerable size and growth of this segment.
- Similar is the share in the country of our case study, i.e. in Slovenia. In 2014 there were 94 840 foreign residents with valid permission for a stay in Slovenia (Ministrstvo za zunanje zadeve Republike Slovenije/Ministry of Foreign Affairs 2014a), and in the same year 11 342 people had such a permission issued (Ministrstvo za zunanje zadeve Republike Slovenije/Ministry of Foreign Affairs 2014b). Considering the total population of Slovenia, which counts to 2 045 431 people, means that the people with the valid permission represent 4.64% of population.

If we look at some short mobility data, we can see that the University of Ljubljana is at the top 10 destinations for Erasmus exchange, receiving 1 072 exchange students for 2012-2013. Since the launch of the programme more than 3 million students have benefited from student mobility. For the years 2012-2013 there were 268 143 students participating. Spain sent out the most Erasmus students for both studies and placements (39 249), followed by France (35 311) and Germany (34 891). Spain was also the most popular destination country with 40 202 incoming students, followed by Germany (30 368) and France (29 293). The United Kingdom hosted almost twice as many students (27 182) as it sent abroad (14 572) (European Commission 2014b).

Although significant in terms of volume, the segment of the non-nationals' and expatriates' community on home market is not easy to define as it is a status 'in between'. The individuals making part of it are not locals, but they are also not tourists. They are sorted into »different clusters in traditional segmentation«, but do not fit in well, and the existing communication and distribution channels are often not adapted to their needs. They are familiar with the culture and habits of the host country; however, their process of integration is slow and a need for learning and exploring local products enormous. This is part of their inclusion in the new society, the environment they are in and a process of claiming the new place they have been found in.

However, in the cluster segmentation analysis and development of markets, internationalisation at home has been overlooked, as it cannot be identified with the existing set

of algorithms and variables. Therefore, new variables and tools need to be used in order to identify latent segments and evaluate the potential of this new kind of segmentation. The potential of the non-nationals' or expatriates' community marketing, or starting the internationalisation at home is a highly ignored concept and often mistaken as 'spreading an activity abroad' or in the home country terms as tourism. Based on mobility statistics, in-depth interviews and exploration of customers (presented within the case study in the next section), we argue that "the non-nationals' community within the home market" is an underexploited segment, not-yet identified segmentation procedures and as such marginalised in both marketing and internationalisation strategies.

Internationalisation starting at home tackles the non-nationals within the existing local market – something so far ignored by many businesses – being private, or local/ public. It may involve tourists as well, however, it shall not become a tourist attraction per se. From a practical, managerial point of view, there are several approaches towards the international communities to be adopted:

1. Non-nationals at home as an exclusive market to be targeted.
2. Non-nationals' and Expatriates' Community at home as a testing space - exploring the potential of a product for later entering foreign markets (exploring the market responsiveness, and segmentation strategy before going international or global).
3. Non-nationals and Expatriates' Community as a target market in foreign countries or as a global segment existing in several markets/cities.

The potential advantages of addressing the non-nationals and expatriates on the home market are numerous and they all contribute to the long-term development of an entity/enterprise and the society and the location. Thus, the effects may be seen in both firms-specific advantages and in location-specific advantages (as stated in Dunning's eclectic paradigm (Dunning, 1988) or understood also as supportive and complementary activities in Porter's diamond):

- The segment of non-nationals and expatriates offers the potential for starting internationalisation at home, representing a clear indicator for possible international success of a product. The segment is manageable as it is homogenous in terms of essential marketing elements, the classic 4 Ps (product, price, place, promotion) and to a large extent even additional 3 Ps -Physical evidence, Process and People, to which the response of the non-nationals or expatriates' community could be especially sensitive. As this segment is characterised by highly unified tastes, due to the profile they share – this segment unilaterally clashes with a new type of culture, desire for integration, difficult comprehension of local customs, and therefore shared ways of thinking. Any product that gravitates around such ideas (integration, domicile emotions, nostalgia, internationalisation, products that go beyond the national identity), therefore unifies this type of a market.
- Enterprise /firm-specific advantages may reveal in different ways. The "new" segment "*non-nationals in the domestic market*" means an increased number of customers, increased sales, more stable sales revenues, lower marketing (communication) costs (compared to addressing other nationalities outside the domestic market due to no transportation costs), increased innovation and intangible assets, spill over to other business functions, possibility for testing space for further internationalisation. "*Inter-*

- nationalisation at home*” may exacerbate enterprises’ liabilities of smallness, for example by introducing additional complexity (Lee *et al.*, 2012), by struggling to secure the financial resources required for successful growth, by exhibiting the shortage of managers with international experience (Coviello & Martin, 1999), or by incurring negative country-of-origin associations (Svetličič, Jaklič & Burger, 2007).
- Social value added to national residents by being included into the ‘Europeanisation’ or ‘Globalisation’ of the world, communicating in different languages, personal development through the contact network development between cultures, enhancing knowledge spill over and enable intercultural communication that may decrease the psychic distance.
 - Social value added to the non-nationals and expatriates by facilitated integration into a foreign environment, accessibility of this new environment, possibility to ‘claim it’ as personal space.
 - A country’s or region’s image, popularity – the image of a whole city (region, country) improves due to its openness, exchange of ideas and created co-operation. Could be used for tourism advantage, as something specific, unique, interesting, and complement or support other industries. Tourist experience that will actually make people less tourists and more ‘travellers seeking local life’, and therefore will easily ‘fit-in’.
 - CEE countries are relatively less popular destinations for tourists and expatriates and this strategy gives them a chance to form a marketing strategy and competitive advantage for this group, and the business environment. Slovenia, for example, has been doing so over the last two years: its tourist image relies on ecology, green space, environment-friendly activities and internationally attractive cultural events (cycling, climbing, film/music festivals and so on) and in this way attracts certain kind of people not only for travelling, but also for the exchange and other long-term residential decisions of the EU citizens, provided with the possibility to choose a country to spend a certain amount of time in. These activities contribute to the formation of unique location advantages which achieve spill-over effect, in the attraction of certain people, businesses and initiatives.

MATERIAL AND METHODS

The strategies of the rapid and “unusual “ internationalisation pattern have been mostly analysed through case studies which are compared to firm-level studies more able to capture complex and multidimensional processes. To analyse and describe the proposed internationalisation strategy, the explanatory case study methodology was followed, using document analysis, focus groups, in-depth semi-structured interviews and participant observation as the main methods for data collection. The multi-method or mixed methods case study approach (Hurmerinta & Nummela, 2011, p. 211) was used with data collection and analysis, since the topic is complex, combines concepts from different disciplines (international business, marketing, business environment, economic policies) and different types of data. It requires a variety of methods in order to mirror the phenomenon and add to the existing knowledge base. The paper describes a new segment that has not been described in the literature or among the existing internationalisation strategies.

The research strategy is based on a larger number of enterprises (case studies) and their first-time internationalisation strategies which have been studied for years within

the IB course and one of them was selected for a deeper study due to a different starting point. The strategy for internationalisation at home and the segment of non-nationals and its potential was identified in the comprehensive case study of the Art Cinema (Kinodvor) from Ljubljana (the capital of Slovenia). The selected case study is based on explorative research (in-depth interviews, the enterprise's Facebook profile research, management and staff surveys, customer surveys, in-depth semi-structured interviews and participant observation methodology). Data gathered between the years 2012 - 2015 provide a rich data set, available for further qualitative and quantitative analysis. The mixed method case study with an "aggregated strategy" seemed also appropriate as the case has more than one purpose: 1. Studying possible first-time internationalisation strategies and 2. examining marketing segmentation and methods that are usable for the first-time internationalisation strategy. As the enterprise faced very limited resources and no extra capacities for internationalisation, more detailed customer segmentation was carried. Within this process, the segment of the non-national i.e. international consumers was identified and its potential explored further via different methods and data analysis (data from interviews, Facebook profile analysis, personal observation, etc. were used as strategic analytical tools). This paper presents only a small portion of the data and analyses collected within the case study.

For market positioning and segmentation we use Rentschler's product and organisational marketing model (Rentschler, 2004) and *Human Factors International Quadrant* (HFIQ) (Goethe-Institut e.V. & Leuphana University, 2015). These two tools by complementing each other allow to measure the added value and sustainable development potential of an institution/business. While the Rentschler's model provides a theoretical framework for placing the marketing realities and opportunities, the HFIQ allows to directly measure and understand the audience segmentation/prioritisation applied by the CEOs and shows if it corresponds to the actual situation. With the help of these two strategic marketing and management instruments, the case study explores the potential of the market development of the international audience of the Art Cinema in Ljubljana.

The case study presents both (i) a gap between the existing and the potential market segmentation and (ii) a strategy of starting internationalisation at home, which could be implemented by other entities as well (or be applied to other specific age and social groups).

The case study of the Art Cinema named "Kinodvor" from Ljubljana (founded by the Municipality of Ljubljana, the capital of Slovenia) was chosen as its marketing strategy is highly oriented towards the audience development and the product popularisation and as it already enjoys popularity and high success within the local community. Its main product - film, has high attraction and frequency that did not fall even during the financial crisis, though cinema industry in general faces huge challenges in keeping growth due to the Internet technology and development of substitutes (Netflix, Voyo, etc). Next, the institution is situated in proximity to an area popular among international visitors (most famous alternative culture gathering place, most famous alternative hostel in Slovenia etc.), so the impact on the (micro and macro) location and the effect complementary to other activities can be explored.

CASE STUDY: KINODVOR ART CINEMA

Kinodvor in Focus

First, we present the cinema's realities and marketing strategies and then show how the specific strategy for the non-nationals or international community segment fits into its further development. During the studied period from 2012 to 2015, Kinodvor succeeded not only to keep, but also to enlarge its audience in spite of the recession on the local market (Figure 1). The majority of other cinemas, (basically all competitive cinemas in Ljubljana) experienced a drop of visitors and sales. Figure 1 illustrates the growth of visitors and the rising share of international visitors.

Kinodvor marketing is oriented at the domestic market and the segmentation is based on the age differentiation. Variables such as age and education are the most important variables used for customer differentiation in market segmentation and the marketing strategy of Kinodvor. In practice, neither age nor education has not been segmented in detail, but serve only for the broad definition of the key groups (e.g. kids and adults/ or professional/movie experts and others) to be targeted and to look for synergies among them. Loyalty programs and social networks management have not (yet) been adapted to the recognised market segmentation.

The Art Cinema places a great emphasis on developing a specific program for a specific target audience. It has a special program for children and young people – which enjoys extremely high frequency. The enterprise has introduced a special entrance fee for parents with new-borns and retired people, reassuring strong social engagement (Kinodvor Strategy 2011-2015). The main approach of the Cinema is to embrace all generations and provide social values for all of them, however a marketing strategy (at least some elements of the marketing strategy) approach has been explicitly developed separately to almost all age groups. Children and youth are considered together. The identified gap is within the group of young audience, and especially students who constitute the majority of the audience aged 18-25 do not have special mentioning neither in the strategy, nor in the yearly reports and there is no accurate data about their visit frequency. However, Kinodvor realises that an important segment of its audience has been neglected, and considers the inclusion of the youth in its future strategies, as for example it is the film festival Kintotrip, to be held for the first time in 2016. An initiative in this direction will be a Youth Film Festival to be held in 2016. The children, however, are tackled specifically. Having in mind that Kinodvor is a public institution with only one screening hall, it still manages to offer a big range of film offerings for different audiences. However, the big potential of the programming it offers creates a rising demand, and tackling the non-nationals and expatriates further is a great stimulus for the cinema's expansion.

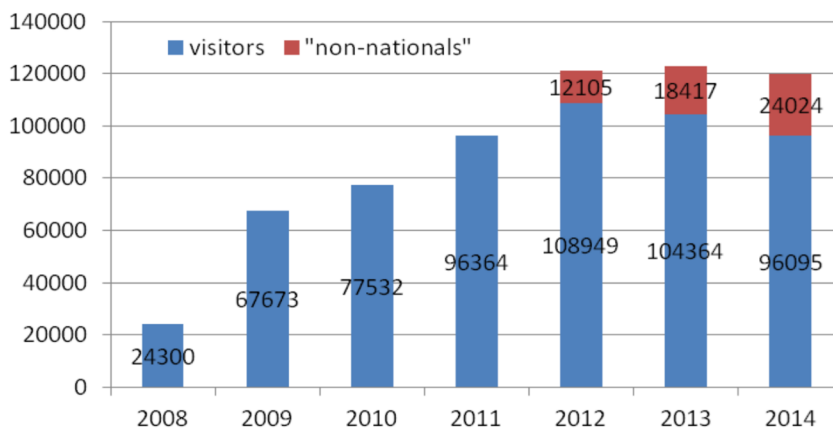


Figure 1. The annual number of visitors in Kinodvor in the years 2008-2014

Source: own estimation based on Kinodvor data.

Mapping the Kinodvor Audience

In order to define the cluster positioning of Kinodvor, the *Human Factors International Quadrant*, developed by Goethe-Institut and Leuphana University, has been used. This method is useful in order to map Kinodvor's audiences. The Quadrant represents a two-by-two matrix that maps the Frequency of Activity across the Importance of Activity, drawing on the vision and mission of the organisation. The following matrix represents the activities/audiences according to Kinodvor. The staff was given an empty quadrant and had the task to fill in with the following marketing segment groups:

- *Children, youth;*
- *Middle age;*
- *Elderly;*
- *Youth (Slovene residents);*
- *Youth (International Community);*
- *International Community (Expatriates', non-nationals).*

As described above, in the existing Kinodvor's segmentation, age is the primary variable used in determining its marketing strategy. Attention has also been given to the other clusters that are of interest of our research, such as nationality (divided to the youth and the international community (non-nationals) in general, as the international (non-national) youth access is facilitated through student network organisations and social networks).

The following diagram (Figure 2) shows that Kinodvor's management has a unilateral view regarding age and nationality division, and does not divide either their importance or their frequency. For this reason, we observe that the age segmentation has high frequency and high importance, while the nationality segment of the market is to a larger extent ignored by the marketing strategy. The next figure (Figure 3), however, created by the authors, and based on the segmentation of visitors (based on the participation and the surveys) argues, that even if not existing in the marketing strategy, there is an impact of this segment and therefore, their presence must be recognised.

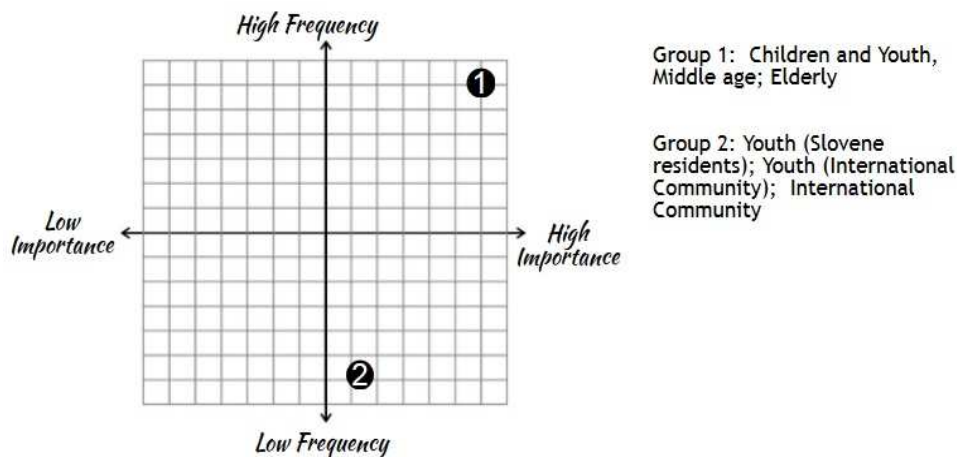


Figure 2. Strategic positioning, representing Kinodvor's cluster segmentation

Source: own study.

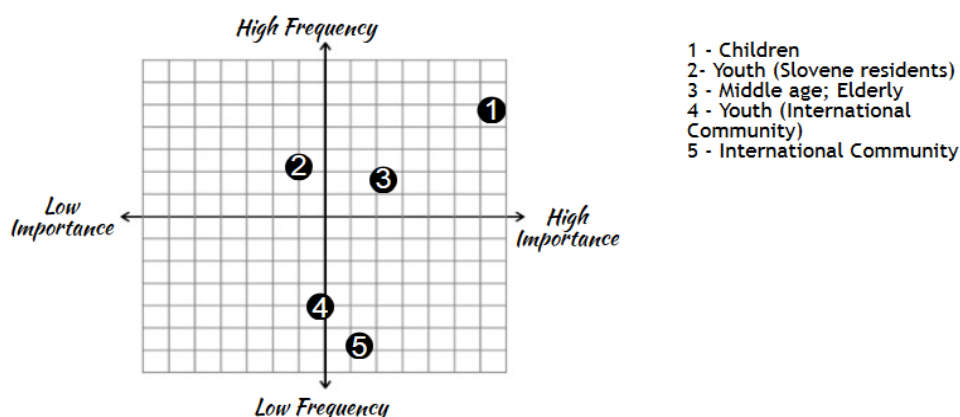


Figure 3. Detailed audience cluster segmentation of Kinodvor

Source: own study.

Estimations based on the participation observation and the survey showed that the international (non-nationals) community represents a significant market segment. The variation of the non-nationals is relatively high and they may range from 0 to 50% share (depending also on language of cinematograph films), and is estimated to be between 15 and 20 % of the total audience. This (already present though) potential audience recently has no place in Kinodvor's strategy. However, it matches the vision and the mission of this art institution whose commitment is that at least 25% of its film programme must consist of European, non-Slovene movies (Kinodvor Strategy 2011-2015). This immediately opens the potential for many international residents in Ljubljana to visit Kinodvor. Therefore, it corresponds with the first managerial approach: "to treat the expatriates' community as a market to be targeted". On the other hand, as Kinodvor serves as a platform for quality films screening especially Slovene productions, expatriates' communities and their

engagement with the institutions can bring the needed feedback for a certain film. Here, there is a further opportunity for collaboration between Kinodvor and Slovene films' distributors. This involves further cooperation for the estimation of the performance of Slovene films for festival nomination choices and even further investment decisions and corresponding with the second managerial option, to use "Expatriates' Community as a testing space - exploring the potential of a product for later entering foreign markets".

The two matrix quadrants (Figure 2 and Figure 3) show the major differences that Kinodvor experiences when it comes to marketing strategy and audience segmentation. The first quadrant represents the CEOs and the marketing management segmentation – we see strictly demographic segmentation, which is highly general and puts together diverse audience segments. This visualisation contradicts the statement of prioritisation. The second quadrant placed a more detailed audience segmentation which more accurately reflects the Kinodvor realities based on the participation and observation research conducted in 2013-2015. Thus, a clear mismatch of priorities and marketing segmentation occurs. It becomes obvious that without further segmentation and research into the potential exploitation of neglected clusters and spillover effect opportunities coming from them, no clear vision of the existing and future audiences can be adopted. Figure 3 presents the possible positioning in cluster segmentation of the international community (non-nationals) segment. With the help of the Rentschler's model and the comparison between the two quadrants, we conclude that internationalisation starting at home is highly ignored, but hides a lot of potential. The biggest missed opportunity is concentration on the local audience development that excludes non-nationals, without realising that the second brings immense value added to the first and vice versa.

Kinodvor, however, realized the missed opportunities due to a scarce differentiation of marketing segmentation. For this reason, the Art Cinema has developed a new tool – an electronic data base that allows segmentation according to different categories, such as personal interest, professional orientation, and foreign language, which is the most relevant category for tackling the expatriates' community market. However, although the existing tools target non-nationals, they are still not seen as a market segment that needs to be tackled separately (as we can see from the Figure 2).

Proposals for Integrating and Using the Expatriates' Community into Kinodvor's Marketing strategy

Next, we propose steps how to approach foreigners and the expatriates' community segment. In order to analyse the potential of the international audiences at home systematically, we use the diagram of tripartite audience (Figure 4), i.e. product and organisational marketing model developed by Ruth Rentschler (Rentschler, 2004). Rentschler developed this model to analyse the changing marketing realities for non-profit oriented museums, therefore, it is closely related to our case study, representing a non-profit, state-funded cultural organisation. For the purposes of this paper, Rentschler's model is adapted in order to explain the potential of international audiences' development. The following categories would serve as a point of reference: audience diversification, access and participation, diversity, social responsibility, and added value. Taking the specific location, institutional and operational characteristics of our case study, attracting the international audience segment can be achieved in several ways described below.



Figure 4. Rentschler's Tripartite audience, product and organisational marketing model

Source: (Rentschler, 2004).

Engagement With the Established Non-Nationals' Communities Networks

For example, the Erasmus programme alone provides an excellent opportunity for international movie nights and meeting points for these audiences that are highly unexploited. In fact, Slovenia is among the top 10 countries for the number of hosted Erasmus students. Therefore, possible cooperation with organisations such as ESN and Erasmus Orientation Teams in different faculties (Faculty of Social Sciences, Faculty of Economy and others), can be extremely useful in order to organise such events, and to popularise the regular programme of Kinodvor. In the past, Kinodvor introduced collaboration with ISIC (International student identity card), and consequently a discount for cinema tickets. However, this collaboration is not exploited today. A better alternative may be collaboration with ESN – Erasmus Social Network cards, as majority of Erasmus students possess it. In order to develop a closer approach with the foreigners, another excellent opportunity for Kinodvor is provided by the Erasmus + programme; it could provide Erasmus traineeship for a EU student in a relevant discipline that can contribute a lot to the field, and will not cost the institution anything.

The international audience in total could extremely benefit from the Cinema's effort to integrate it into the Slovene culture, where classic Slovene movies could be shown exclusively with English subtitles and a following discussion can be of extreme importance not only to get to know the Slovene culture, but also for their own gathering and creation of relationships, in which Kinodvor can become an irreplaceable part also in the future. Especially, if there is no possibility to translate the available marketing materials, such as brochures, monthly programmes and so on into English for financial reasons, having a channel of communication through organisations that are in direct contact with foreigners (Embassies, cultural institutes, student organisations, intercultural friendship associations, etc.) could help in passing on the message. Initiatives, that have started and received boost in 2015, have proven as a valuable practice.

Digitalisation and Language

In the digital age, the idea of the passive audience is largely redundant, if not completely invalidated. Contemporary audiences shape, influence, engage with or interact, and guide the practices and processes. Social media networks have popularised the Friend-Of-A-Friend (FOAF) phenomenon and made viral effects on the norm for catchy memes – there are completely new ways of inheriting and cultivating audiences. An organisation's audience is not a homogeneous whole but rather a fragmented, loosely-coupled network that exists at a multiple, sometimes contradictory level, a part of which is the international audience cluster.

As the Generation Y, which goes to the cinema most frequently, without a connection to nationality, has grown up in the digital area and their communication and relationship building starts predominantly online, it is logical that online social networks are an excellent tool for Kinodvor to develop in this direction and reach the young people.

Digitalisation of communication and the Internet itself is not only a technology, but a totally new form of culture and communication, where the users' demands for cultural activities are changing. Today's users demand that art and culture must involve dialogue, they must be participatory, and that people can take part and interact (Mandel, 2015). Social communication technology provides a new type of consumer called 'the cultural participant' (Kolb, 2013). Therefore, social networks provide a platform that allows consumers to move beyond just attending the events, but to be actively engaged and provide their opinion – to involve consumers, and create a deeper relationship with the organisation. Marketing should not be focused merely on filling seats, but it should aim at creating relationships, associations and direct engagement with the public, and for young people the starting point of this relationship is online.

Here, the English language is of extreme importance due to its elevated status of an 'international language' that attracts expatriates' communities. Kinodvor has an English version of website, discussions with film creators are also held in English and an interesting event – to be held in 2016 – is the live streaming of International Film Festival Rotterdam screenings. In addition, Kinodvor's social media networks provide information in English during Open Air cinema summer events. All these aspects are of a great importance for the potential development of a future internationalisation strategy.

Also, the potential of rating websites such as TripAdvisor should not be ignored. Positive rating and feedback there guarantees an international inflow of young people who are in search for alternative and unique experiences that are typical for the place they visit and are appreciated by the locals, as a positive international image is a sign of unquestioned quality. Therefore, the interaction with foreigners is not only beneficial for the local community, but also attracts it. Kinodvor is on the Trip Advisor platform since quite recently, therefore, its profile provides scarce information, however, its presentation at the Visit Ljubljana tourist page is highly appealing to international communities, as it is described as: *"A cinema for film connoisseurs showing high quality films for the more demanding cinema goer, with a special emphasis on European film"* (Visit Ljubljana). Therefore, its potential for platforms such as Trip advisor and advertisement among the international audience should not be underexploited.

Re-Shaping the Urban Space, Complementing the Existing Services and Adding a Specific Advantage to the Location

Kinodvor's strategy is predominantly oriented at the local community. However, this concentration in the dynamic consumer times cannot last if the local community does not experience personal self-actualisation and development, not only personally, but also in the institution with which it identifies. The expatriates' community represents an incentive of the meeting point, enhancing ideas and the film culture development at a level that currently does not exist in Ljubljana. In fact, as stated in interviews with the customers belonging to the non-nationals' community segment, Kinodvor is the only place in Slovenia that can develop such a potential on a daily basis due to its international programme and films that touch social issues of the global importance. Therefore, this positioning and intense everyday programme represents a competitive advantage in comparison with film festivals, seen as the major events where such thought exchange occurs. For these reasons, Kinodvor has established fruitful cooperation with the biggest international film festivals in Ljubljana (Liffe and Animateka), providing its hall for festival screenings and thus it has increased its social incentive contribution immensely.

Re-shaping the urban space is a part of this strategy that can bring many incentives not only for the institutions present in this area, but for the development of the whole district. A bit further from the centre, the Art Cinema is situated near Metelkova, the peak of alternative culture in Ljubljana, which resembles a Copenhagen's mini version of Christiania, combined with a hostel, being awarded for the best hostel on Trip advisor a few years ago – Hostel Celica¹, a direct provider for travellers searching for alternative experiences. In a high contrast, right next to it, there is a newly built museum complex consisting of two Modern Art Museums, the Slovene ethnographic museum and a new part of the Slovene national museum. However, there is no platform which unites these four cultural institutions, and therefore it does not have an image of a common cultural place. In addition, the Metelkova square provides space for the open-air cinema and concerts. However, the different events and exhibitions occur separately and do not represent a common strategy.

The creation of a 'cultural experience triangle' formed by Kinodvor-Metelkova-Museum Quarter has the potential of district development and can help build this image of something unusual, out of the mainstream, that is so attractive for young Ljubljana and Slovenia residents who seek an unrepeatabe experience.

DISCUSSION AND CONCLUSIONS

The paper examines an early internationalisation strategy of an enterprise in a creative industry and explores the option of internationalisation at home (before or even without foreign entry) by using the non-nationals and expatriates' community as a separate market segment. The literature on the international marketing segmentation lacks research regarding the non-national segments within countries. According to the available macro statistics and the case study evidence, this segment is increasingly relevant, especially in

¹Former prison turned into a hostel, providing a unique experience for its guests. Its advertisement consists of 'Spend a night behind the bars'.

terms of the European market development which promotes the free movement of people, capital and goods. Further research and development of marketing activities for this group (as well as more detailed segmentation of the non-nationals and expatriates' community within urban areas) would enable firms to exploit their existing international competitive advantages already on the home market. As entering a new foreign market is resource-intensive, such an alternative can be helpful for expanding companies from emerging markets and the markets that went through a transition to the liberal economy process, such as the Eastern European countries. Such a strategy is disruptive innovation and may not only reveal an international expansion potential, but also benefit from the home market environment in a various way that this paper explores, such as the non-nationals integration, the economic integration, the market openness, and the sustainable business development. The expatriates' community segment represents a new market to be targeted and explored, at home, but it also represents a specific consumer niche that needs to be further explored, followed and targeted in other countries.

The case study showed an underexploited potential of this segment, even when the product is clearly cross-national and its further development and expansion would greatly benefit with such segmentation within the marketing strategy. The advantages of this strategy are not only to target new audiences/customers but also to improve the strategic marketing development. The analysis of consumers proved the existence of the expatriates' community segment, although it has not been recognised in the CEO's perception and the initial firm's strategy.

Tackling an expatriates' community at home/on the domestic market is seen as an opportunity for starting internationalisation that has been overlooked not only in the CEE and in creative industries, but also in other industries and in other European cities where the expatriates' community is growing. The case study presents some proposals for targeting it.

The explorative research that helped to create this case study drew attention to the weaknesses of the existing market segmentation on the European markets and rapid changes in consumer segmentation in Europe, especially in the case of creative and culture industries. It illustrates a mismatch of priorities and the existing marketing segmentation and the need for further segmentation and research.

The case of Kinodvor may serve as incentive for future research; not only for developing improved and more sophisticated market segmentation, but also targeting the non-nationals and expatriates more successfully, and to analyse all (still) overlooked effects (for firm-specific advantages, industry- and location-specific advantages and the cultural diplomacy development) where internationalisation at home (on the home market) goes beyond the provision of an added value predominantly for the local community, which is an enterprise's initial target.

As this area has been poorly explored before, the research faces several limitations. There is a lack of strong empirical data on the subject, as such data is hard to collect since the segment faces both the long-term and the short-term mobility. This segment is flexible and changeable, therefore, marketing research on the responsiveness and further segmentation needs to be renewed regularly. This calls for the development of appropriate tools that would help recognise the potential. On the one hand, it presents a challenge due to the unstable market, on the other hand it shows the potential of reaching a growing

market that crosses borders. Another limitation is that the strategy to start internationalisation at home via the expatriates' community is applicable only to certain urban locations (metropolises, capitals, cities with big population, popular destinations). The adoption of such a strategy may also meet strictly practical issues, such as language barriers, cultural misinterpretations and differences. However, the essence of those limitations shows that they can be overcome by means of further research and exploration of the topic. Next, the case study offers a challenge to build a strong conceptual model of internationalisation at home and integrate it into the existing internationalisation process model.

The presented strategy is relevant for enterprise organisational learning, the dynamics of internationalisation and performance. Implications of the idea to use the non-nationals and expatriates as a separate segment are not only relevant for European enterprises that may start internationalisation at home, but also for non-European enterprises finding the European community outside Europe or when entering European cities or city strategies themselves.

REFERENCES

- Andersen, O. (1993). On the internationalisation process of firms: a critical analysis. *Journal of International Business Studies*, 24(2), 209–231.
- Agarwal, M. K. (2003). Developing Global Segments and Forecasting Market Shares: A Simultaneous Approach Using Survey Data. *Journal of International Marketing*, 11(4), 56–80.
- Beatty, S. E., Homer, P. M., & Kahle, L. R. (1988). Problems With VALS in International Marketing Research: an Example From an Application of the Empirical Mirror Technique. *Advances in Consumer Research*, 15, 375–380.
- Bell, J., Crick, D., & Young, S. (2004). Small firm internationalization and business strategy: an exploratory study of 'knowledge intensive' and 'traditional' manufacturing firms in the UK. *International Small Business Journal*, 22(1), 23–56.
- Cernat, L. (2006). *Europeanization, Varieties of Capitalism and Economic Performance in Central and Eastern Europe*, New York: Palgrave Macmillan.
- Cook, A., & Glass, C. (2015). Do Minority Leaders Affect Corporate Practice? Analyzing the Effect of Leadership Composition on Governance and Product Development. *Strategic Organization*, 13(2), 117–140.
- Coviello, N.E., & Munro, H.J. (1995). Network relationships and the internationalization process of small software firms. *International Business Review*, 6(4), 361–386.
- Coviello, N.E., & Martin, K.A. M. (1999). Internationalization of service SMEs: an integrated perspective from the engineering consulting sector. *Journal of International Marketing*, 7(4), 42–66.
- Cravens, D.V., & Woodruff, R.B. (1986). *Marketing*. Addison-Wesley Publishing Company.
- Cui, G., & Q. Liu. (2001). Emerging Market Segments in a Transitional Economy: A Study of Urban Consumers in China. *Journal of International Marketing*, 9(1), 84–106.
- Dikova, D., Jaklič, A., Burger, A., & Kunčič, A. (2016). What is beneficial for first-time SME-exporters from a transition economy: A diversified or a focused export-strategy? *Journal of World Business*, 51(2), 185–199. doi:10.1016/j.jwb.2015.05.001
- Dunning, J. H. (1988). The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions. *Journal of International Business Studies*, 19(1), 1–31.
- European Commission. (2014). *Erasmus Facts, Figures & Trends*. Retrieved on July 10, 2015 from http://ec.europa.eu/education/library/statistics/ay-12-13/facts-figures_en.pdf

- Eurostat. (2014a). *Residence Permits Statistics*. Retrieved on July 3, 2015 from http://ec.europa.eu/eurostat/statistics-explained/index.php/Residence_permits_statistics
- Eurostat. (2014b). *Migration and Migrant Population Statistics*. Retrieved on July 3, 2015 from http://ec.europa.eu/eurostat/statistics-explained/index.php/Migration_and_migrant_population_statistics
- Fillis, I. (2001). Small firm internationalisation: an investigative survey and future research directions. *Management Decision*, 39(9), 767–783.
- Goethe-Institute & Leuphana University. (2015). Human Factors International Quadrant. MOOC “*Managing the Arts: Marketing for Cultural Organizations*”. Produced by Bilderfest factual entertainment.
- Hassan, S. S., & Katsanis, L. P. (1991). Identification of Global Consumer Segments. *Journal of International Consumer Marketing*, 3(2), 11-28.
- Hofstede, T. F., Wedel, M., & Steenkamp, J. E. M. (2002). Identifying Spatial Segments in International Markets. *Marketing Science*, 21(2), 160-177.
- Hofstede, T.F., Steenkamp, J. E. M., & Wedel, M. (1999). International Market Segmentation Based on Consumer-Product Relations. *Journal of Marketing Research*, 36(1), 1-17.
- Hurmerinta, L., & Nummela, N. (2011). Mixed-method case studies in international business research. In Piekari & Welch (Eds.), *Rethinking the Case Study in International Business and Management Reserch*. Cheltenham: Edward Elgar.
- Inkei, P. (2007). *Funding culture in Europe: public and private partnerships*. Le recontee in Seville, 8-11 March, advanced online publication. Retrieved on July 16, 2015 from <http://www.budobs.org/other-projects/sponsorship-and-taxes/231-funding-culture-in-europe-public-and-private-partnerships.html>
- Johanson, J., & Vahlne, J.-E. (1977). The internationalization process of the firm: a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23–32.
- Johanson, J., & Vahlne, J.-E. (1990). The mechanism of internationalisation. *International Marketing Review*, 7(4), 11–24.
- Johanson, J., & Vahlne, J.-E. (2009). The Uppsala internationalization process model revisited: from liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40, 1411–1431.
- Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization of the firm: four Swedish cases. *Journal of Management Studies*, 12(3), 305–322.
- Kale, S. H., & Sudharshan, D. (1987). A Strategic Approach to International Segmentation. *International Marketing Review*, 4(2), 60-70.
- Kinodvor. (2011). *Strategija Javnega Zavoda Kinodvor 2011-2015*. Retrieved on July 3, 2015 from http://www.kinodvor.org/media/strategija_jz.kinodvor.2011-2015.pdf
- Kreutzer, R.T. (1988), Marketing-Mix Standardization: An Integrated Approach in Global Marketing. *European Journal of Marketing*, 22(10), 19-30.
- Lawson, R., & Todd S. (2002). Consumer Lifestyles: A Social Stratification Perspective. *Marketing Theory*, 2(3), 295-307.
- Lee, H., Kelley, D., Lee, J., & Lee, S. (2012). SME survival: the impact of internationalization, technology resources, and alliances. *Journal of Small Business Management*, 50(1), 1-19.
- Leonidou, L. C., & Katsikeas, C. S. (1996). The export development process: an integrative review of empirical models. *Journal of International Business Studies*, 27(3), 517–551.

- Madsen, T., & Servais, P. (1997). The internationalization of born globals: an evolutionary process? *International Business Review*, 6(6), 561–583.
- Maister, P. (2015). A learning curve: how foreign students can provide an FDI boost. *fDi Magazine*, 12/8/2015. fDi Intelligence. The Financial Times.
- Mandel, B. (2015). *Arts Marketing and Audience Development. MOOC Managing the Arts: Marketing for Cultural Organizations*. Goethe Institut e.V. & Leuphana University. Produced by Bilderfest factual entertainment.
- Mayoral, L., & Alvarez, S. (2014). Internationalization From "Internationalization At Home": A Case Of Study In Unicen-Argentina. *Global Conference on Business & Finance Proceedings*, 9(2), 1735-1743.
- Mercado, S., Wellford, R., & Prescott, K. (2001). *European Business*. Forth Edition. Essex, England: Prentice Hall Financial Times. Pearson Education Limited.
- Ministrstvo za zunanje zadeve Republike Slovenije (2014). *Izdana dovoljenja za prebivanje v letu 2014*. Retrieved on June 26, 2015 from http://www.mnz.gov.si/si/mnz_zasvas/tujci_v_sloveniji/
- Ministrstvo za zunanje zadeve Republike Slovenije (2014). *Veljavna dovoljenja za prebivanje v letu 2014*. Retrieved on June 26, 2015 from http://www.mnz.gov.si/si/mnz_zasvas/tujci_v_sloveniji/statistika/
- Nairn, A., & Berthon, P. (2003). Creating the Customer: The Influence of Advertising on Consumer Market Segments: Evidence and Ethics. *Journal of Business Ethics*, 42(1), 83-99.
- Oviatt, B. M., & McDougall, P. P. (1994). Toward a theory of international new ventures. *Journal of International Business Studies*, 25(1), 45–64.
- Rentschler, R. (2004). Museum Marketing: Understanding Different Types of Audiences. In F. Kerrigan, P. Fraser, & M. Ozbilgin (Eds.), *Arts Marketing* (pp.139-158). Oxford: Elsevier.
- Sierra, M. L. (2013). *Becoming Global Without Leaving Home: Internationalization at Home, A Case Study of San Jorge, a Spanish Private University*. University of Minnesota: ProQuest Dissertations Publishing.
- SNG Opera and Ballet Ljubljana. Official Facebook page. Retrieved on June 26, 2015 from <https://www.facebook.com/SNGOperaInBalet?fref=ts>
- Steenkamp, B. E. M., & Baumgartner, H. (1998). Assessing Measurement Invariance in Cross-National Consumer Research. *Journal of Consumer Research*, 25(1), 78-107.
- Svetličič, M., Jaklič, A., & Burger, A. (2007). Internationalization of small and medium-size enterprises from selected central European economies. *Eastern European Economics*, 45(4), 36-65.
- Williams, C. (1997). *Consumer Services and Economic Development*. Routledge.
- Westhead, P., Wright, M., & Ucbasaran, D. (2001). The internationalization of new and small firms: a resource-based view. *Journal of Business Venturing*, 16(4), 333–358.
- Wright, M., Westhead, P., & Ucbasaran, D. (2007). Internationalization of small and medium-sized enterprises (SMEs) and international entrepreneurship: a critique and policy implications. *Regional Studies*, 41(7), 1013–1029.
- Yankelovich, D., & David, M. (2006). Rediscovering Market Segmentation. *Harvard Business Review*, 1–11.
- Yavas, U., Verhage B. J., & Green, R. T. (1992). Global consumer segmentation versus local market orientation: empirical findings. *Management International Review*, 32(3), 265-73.

Yukiko, I. (2015). Realizing Internationalization At Home through English-Medium Courses at a Japanese University: Strategies to Maximize Student Learning. *Higher Learning Research Communications*, 5(1), 11-28.

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Social Problems as Sources of Opportunity: Antecedents of Social Entrepreneurship Opportunities

Agnieszka Żur

ABSTRACT

Objective: Based on extensive literature review, this paper aims to establish if, why and how, in given environmental and market contexts, social entrepreneurship (SE) opportunities are discovered and exploited. It positions social problems as sources of entrepreneurial opportunity. The article presents an integrated process-based view of SE opportunity antecedents and concludes with a dynamic model of SE opportunity.

Research Design & Methods: To fulfil its goal, the paper establishes opportunity as unit of research and explores the dynamics of opportunity recognition. To identify the components of SE opportunity through a process-based view, the study follows the steps of critical literature review method. The literature review follows with logical reasoning and inference, which results in the formulation of a model proposition of social entrepreneurship opportunity.

Findings: The paper presents a holistic perspective on opportunity antecedents in SE context and introduces social problems, information, social awareness and entrepreneurial mindset as fundamental components of social entrepreneurship opportunity equation.

Implications & Recommendations: It is necessary to remember for policy makers, investors and partners involved within the social sector, that social problems can be the source of entrepreneurial opportunity. Training, assisting and engaging socially aware entrepreneurs is a promising line of development for all communities.

Contribution & Value Added: The major contribution of this study lies in extending the existing body of social entrepreneurship research by providing a new perspective, placing social problem as opportunity in the centre of the discussion.

Article type: conceptual paper

Keywords: social entrepreneurship; opportunity; antecedents; social problems

JEL codes: L26, M13, L31

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INTRODUCTION

Social enterprises function at the intersection of various economic sectors in different legal forms, either for-profit, non-profit or not-for-loss, often in multiple organisational forms simultaneously (Battilana & Lee, 2014). Social entrepreneurship has been recognized in the last two decades by numerous authors as a successful pathway of tackling world's both local and global social problems (Dees, 2007; Curtis, 2007; Short *et al.*, 2009). Their fundamental objective is profound and lasting structural social change (Praszkier & Nowak, 2012, p. 64). Social enterprises use economic means to introduce social change and thus transform market, human and social resources into social capital (Stryjan, 2004).

Most social entrepreneurship conceptualizations are broad and inclusive in character, which is why scholars emphasize the need to deepen our understanding of social entrepreneurship phenomena, "to bridge the gap between our current understanding of social entrepreneurship and an enhanced knowledge that could aid in researching this emerging field" (Short *et al.*, 2009, p. 162). Researchers have identified numerous exploration avenues to narrow that gap and one of them is the identification of opportunities pursued by social enterprise to fulfill their social goals (Bull, 2008; Short *et al.*, 2009). This research is an answer to that call.

All forms of entrepreneurship require exploration of both micro level (socio-cognitive, emotional) and macro level (institutional, environmental) antecedents (Battilana, 2006). This study adapts a holistic view and takes the entrepreneurial opportunity lens to social entrepreneurship, since the notion of opportunity creation, recognition and exploitation are traditionally associated with entrepreneurship.

Understanding the nature of opportunities is important because it can enhance our understanding of the origins and distinctive features of all entrepreneurial acts. Authors have noted that research focus strictly on the firm, may be useful for some domains such as strategic entrepreneurship which compares performance between competitive firms, but it does not add enough insight into the entrepreneurship nexus (Shane & Venkataraman, 2000). Opportunity as unit of analysis in entrepreneurship research allows the assessment of entrepreneurial acts and provides a deeper understanding of its dynamics. Social entrepreneurship as an entrepreneurial act is always a response to perceived opportunity and as such requires an opportunity-based approach as well. Therefore opportunity as unit of analysis is much advised.

The main goal of this paper is to present an opportunity-based view (OBV) of social entrepreneurship, the antecedents and conceptualization of this stream of theory, claiming that OBV provides a useful lens for social entrepreneurship activity analysis. The study is based on an integrative literature review, combining sources from fields of general entrepreneurship theory devoted to opportunity, social entrepreneurship theory and social problems theory. The paper starts with introducing social enterprises, their hybrid nature and various tensions. Then it turns to opportunity as unit of analysis, just as a significant bulk of entrepreneurship theory does. It explores the antecedents of opportunity development to sum up with a proposal of a research model. The major contribution of this study lies in extending the existing body of social entrepreneurship research providing a new perspective on opportunity identification and exploitation modes in SE context.

MATERIAL AND METHODS

Social entrepreneurship (SE) has emerged as an important area of research and practice as sub-stream of entrepreneurship research. Parallel to that social problems research has been growing in scope contributing largely to the development of social entrepreneurship theory.

The focus of this study is on the discussion and elaboration of social entrepreneurship opportunity concept. In its main objective it aims to identify the necessary components of opportunity in SE context through a process-based view. The leading method employed in this study is integrative literature review.

Scientific research requires a procedure according to pre-determined steps in order to obtain the most valuable cognitive effects of the research process (Babbie, 2012, pp. 112-113). The nature of the study is multidimensional, it realises exploratory, descriptive, analytical and predictive purposes. The thorough literature study was prepared in order to conceptualise and operationalise the research objective. A five-stages model of a integrative literature review was employed in this study (Table 1). The study relied on literature sources from EBCSO and EMERALD scholarly articles data base, as well as classical works in the relative fields. Through the process depicted below and application of chosen keywords a total of 159 articles of selected, of which 78 were included for further analysis and 44 were included in the final version of the paper as reference points.

Table 1. Methodological background of the research process

No.	Steps	Specification
1.	Searching for literature	<ul style="list-style-type: none"> – Keywords: social entrepreneurship, opportunity, social problem, social enterprise – Defining inclusion criteria
2.	Screening and mapping the literature	<ul style="list-style-type: none"> – Identifying main definitions – contrasting existing conceptualizations – Evaluating applicability – Excluding and including identified sources
3.	Assessing the literature	<ul style="list-style-type: none"> – Full text review based on inclusion criteria – Critical review of arguments – Identifying competing and completing arguments – Comparing and evaluating arguments
4.	Integrating the literature sources	<ul style="list-style-type: none"> – Identifying contradictions – Identifying gaps – Drawing conclusions
5.	Final inference	<ul style="list-style-type: none"> – Model formulation

Source: own evaluation based on (Whittemore & Knafli, 2005).

The literature review was followed by logical reasoning and inference, which resulted in the formulation of the proposed process-based view model of social innovation.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Social Entrepreneurship: Conceptual Challenges and Tensions

Social entrepreneurship (SE) has emerged as an important area of research and practice. Social entrepreneurship has been recognized in the last two decades by numerous authors as a successful way of transforming the social sphere by addressing both local and global social problems (Dees, 2007; Short *et al.*, 2009; Yunus, 2011; Praszkie & Nowak, 2012). Social entrepreneurship had been defined in the past as a process of employing market-based methods to solve social problems (Grimes *et al.*, 2013). By blending initiative, innovativeness, community involvement and resource mobilization, social enterprises introduce solutions that can work more effectively than state or charity standard approaches. Their advantage over government programs is autonomy, flexibility and access to private resources (Dees, 2007). The primary advantage over charity lies in the problem-solving nature rather than providing aid nature of these organisations (Yunus, 2011). The increasing popularity of social enterprise has also resulted in regulatory activity aimed at supporting the development of a social enterprise field. For example, new legal forms have been created in order to better address the needs of social enterprises that are neither typical corporations nor typical not-for-profits. Yet new research is still needed. In spite of twenty years of research, it still remains fragmented and polyphonic.

Because definitions of SE have been developed in different domains (non-profit, for-profit and public sectors) a unified definition has not emerged. There are however certain features of SE phenomena that form the foundation of this research area, delineate its boundaries and lay foundations for definitions:

- first, they extend the “opportunity exploitation logic” of entrepreneurship onto the social sphere (Praszkie and Nowak, 2012, p. 52);
- second, they blend social and financial objectives (Dees, 2007), yet the generated profit serves merely as a mean of extending the social value added (Yunus, 2011, p. 47);
- third, all coexisting conceptualizations of social enterprises refer to the ability of leveraging resources to address social problems (Dart, 2004).

And thus social entrepreneurship has been described in the past as “an innovative, social-value creating activity that can occur within or across the non-profit, business or government sector” (Stevenson *et al.*, 2007, p. 4) or as a “process of creating social value by exploring and exploiting opportunities and combing resources in new ways” (Mair & Marti, 2006, p. 37). Both these popular definitions are overlapping and completing in nature, referring to the essence of entrepreneurship, yet cannot serve as clear guidelines for SE recognition.

EMES (Emergence of Social Enterprises in Europe) criteria have been often adapted in past research, as clear and comprehensive (Defourny & Nyssens, 2010, pp. 32-53). The economic criteria outlined by EMES are: (i) commercial activity of selling goods or services, (ii) independence from government administration, (iii) undertaking economic risk, and (iv) employing paid labour. The social criteria are: (i) centrality of social mission, (ii) citizen and community rooted, (iii) participative in character, (iv) democratic governance and (v) limited profit distribution.

The fundamental difference between traditional and social entrepreneurship is the primacy of goals. Traditional entrepreneurs through opportunity identification and exploitation seeks to achieve economic commercial goals and generate economic market value added. Social entrepreneurs through the same processes seeks to achieve social goals and generate social value added. Both types of entrepreneurs are characterized by proactive attitudes, the will to change the current state of equilibrium, and readiness to bear calculated risk. Both entrepreneurs hold an entrepreneurial mindset, which has been categorized in the past as the passionate seeking of new opportunities (McGrath & Macmillan, 2000). The major difference lies at the entrepreneur's priorities. Social entrepreneurs are driven by the primacy of social goals, but they do not deny profit generation. Their economic activity and revenue streams serve their social mission. They apply market instruments within the social arena. Traditional entrepreneurs are driven by the primacy of profit generation, although they do often introduce positive social changes in their environment (e.g. by providing employment opportunities or various CSR initiatives), which are side-effects of their economic activity.

Differences in pursued goals pull organisational differences. The existing literature depicts very specific features of social enterprises that distinguish them in many aspects from strictly business-oriented ventures, cause internal tensions and present a set of very unique organisational challenges. First of all, they pursue social goals; although they are a part of a market economy, their mission and goals lie beyond it (Hausner *et al.*, 2008). Social enterprises are highly contextual, embedded in local relationships and networks (Praszkie & Nowak, 2012, p. 136) and highly dependent upon their various stakeholders (Stevenson *et al.*, 2007). These include the founders, funders, partners, beneficiaries, suppliers, local community and authorities. The interests of these organisations are not always aligned (di Domenico *et al.*, 2010). Social enterprises take numerous legal forms and cut across all sectors of the economy (Defourny & Nyssens, 2010). Their financial resources are varied ranging from private capital and profit generation to government subsidies and charity donations (Leś, 2008). What's more, its customers are often not the sources of their revenue and their profit distribution is highly limited (Defourny & Nyssens, 2010).

Authors point out that social entrepreneurs respond in fundamentally different ways to adverse contextual conditions than their commercial counterparts. They are cooperative, participative and inclusive rather than rival in character (Short *et al.*, 2009). These features are also reflected in their management style. As observed by Praszkie and Nowak (2012) social enterprises often rely on a new type of leadership, which the authors refer to as "empowering leadership" characterized by a high level of social empathy, focused on activating the potential of social groups and communities. These leaders assume the role of facilitators and enablers rather than "front men" of their organisations.

The coexisting normative definitions are numerous. The most common set of criteria depicting the characteristics of social enterprises are: the centrality of social mission, fragmented heterogeneous financing, blending social and commercial approaches, dispersed governance and stakeholder-dependence. In order to further distinguish the distinctive features of social entrepreneurship, to understand their nature and origin, it is useful to adapt an opportunity lens. This will enable to focus on the heart of the entrepreneurial act and to study the origins of social opportunity ventures.

Opportunity as Unit of SE Analysis

Opportunity is referred to as the dominant thread in current mainstream entrepreneurship research, both individual and firm-level (Venkataram *et al.*, 2012). According to Stevenson and Jarillo (1990) the pursue of opportunity, defines the ability of the individual, as well as the organisation to be entrepreneurial. Contemporary coexisting convictions regarding entrepreneurship are rather completing than competing, all referring to the identification, evaluation and pursuit of opportunity (Stevenson & Jarillo, 1990; Jones & Butler, 1992; Shane & Venkataram, 2000).

Early conceptualizations of opportunity define them as situations in which new goods, services, raw materials and organizing methods can be introduced and sold at greater than their cost of production process (Casson, 1982). As Schumpeter (1934) elaborated, economies operate in a constant state of disequilibrium. Technological, political, social, regulatory, and other types of changes offer a continuous supply of new information about different ways to use resources and create wealth. By making it possible to transform resources into a more valuable form, new information can alter the value of resources and, therefore, the resources' proper equilibrium price. Because information is imperfectly distributed, all players in the market do not simultaneously acquire new information. Some players obtain information before others about resources lying fallow, new discoveries being made, or new markets being created. Those that obtain new information before others can purchase resources at below their equilibrium value and earn an entrepreneurial profit by recombining the resources and then selling them (Schumpeter, 1934). This suggests that time is an important aspects of opportunity exploitations and that early movers are more likely to succeed.

Taken these early findings, opportunities can come in various forms, yet their prerequisite is information asymmetry across time and space (Drucker, 1985). Information asymmetry can be related, for example, to weak institutional structures in developing economies. Information gaps can present an opportunity for entrepreneurs and stimulate them to compete in environments where they hold the advantage of superior access to information. Opportunities often occur due to political or regulatory shifts. Institutional or legal transitions, such as privatization processes in post-communist countries or new public management schemes offered numerous opportunities for social entrepreneurs.

Authors still disagree whether opportunities are objective or subjective phenomena. Shane and Venkataram (2000) argue that, although the recognition of opportunity is a subjective process, opportunities themselves are objective phenomena, that are not known to all people at all times. An opposing argument developed by others suggest that opportunities may be also created rather than discovered (Li, 2013). Opportunity creation may be driven by subjective beliefs and actions, rather than objective factors. According to some, it is human beings who bring life and meaning to opportunities, as without them opportunities are non-existent. Both positions hold strong arguments in this discussion and might completing rather than competing, taken the vast array of opportunity sources.

Shane (2000) offers a typology of opportunities, based on whether they rely on completely new combinations of means-ends or optimize existing ones. He refers to those two situations as to Schumpeterian and Kirznerian opportunities respectively. This distinction has been followed in later years by other authors and researchers have established that

these two perspectives explain to existence of different types of opportunities that can be both present in an economy at the same time (Shane & Venkataraman, 2000), yet they may have different effects on the economic activity of the entrepreneur and bear different effects on the economy.

Schumpeterian opportunities result from disequilibrating forces and result in disrupting the existing system. They break away from existing knowledge and rely primarily on new knowledge and innovative ideas. Schumpeterian opportunities make the accumulation of evidence for their value and duration difficult. As a result, they are more risk sensitive and represent high profit potential (Aldrich & Kenworthy, 1999). Schumpeterian opportunities rely on imagination and creativity and as such, they are rather created than identified, since they usually result in a brand new opportunity space and a new market.

Kirznerian opportunities, on the other hand, result from equilibrating forces and bring the economy closer to equilibrium. They rely on existing information, are not very innovative and replicate exiting organisational forms and established ways of doing things (Shane, 2000). Kirznerian opportunities emerge because prior decision makers made errors or omissions that have created surpluses or shortages. As such they are idiosyncratic, characteristic to an individual market situation (Shane, 2000). As such, Kirznerian opportunities are rather identified than created and involve observation and analytical skills.

All opportunities, despite their type and source have two important features: value and longevity (Shane, 2000). The value of opportunity is expressed in the belief that its expected profit will be larger than the opportunity cost of other alternatives (Kirzner, 1997). Again, opportunity value is not an objective phenomenon as it is based on subjective judgment and refers to the future. Even if two entrepreneurs might both identify an opportunity for internationalization, they are very likely to give that opportunity different value. In his early research Kirzner (1973) observed that that the process of discovery of opportunities requires entrepreneurs to guess customer' expectations about a variety of things. People make decisions on objective as well as subjective basis, often difficult or impossible to measure. Judging these expectations is therefore a highly subjective process.

Another feature of opportunities is their limited duration. Because entrepreneurial opportunities depend on asymmetries of information and beliefs, eventually, they become less profitable or even cost inefficient to pursue. This is for two prime reasons. First, as opportunities are exploited, information diffuses to other members of society who can imitate the entrepreneur and competition increases. Firms that enter foreign markets and generate high profits are usually followed by other entrants. When the entry rate of additional entrepreneurs reaches a level at which the benefits from new entrants exceeds the cost, the incentive for people to pursue the opportunity is reduced, as observed early on by Schumpeter (1934). Second, the exploitation of opportunity provides information to resources providers about the value of the resources that they possess and leads them to raise resource prices over time, in order to capture some of the profit (Kirzner, 1997).

Taken all of the above into reflect, opportunities in social entrepreneurship context can be defined as situations in which new mean-ends combinations in socio-economic environments can be created or optimized and that hold value over a limited amount of time. OBV of SE conceptualizes SE as the behavioural processes associated with the creation and exchange of value through the identification and exploitation of opportunities that lie on the overlap of social and economic sectors. OBV perspective adapts a process-oriented

approach to social entrepreneurship, in which antecedents of opportunity and path dependence are relevant to our understanding of opportunity dynamics.

RESULTS AND DISCUSSION

Theoretical Antecedents of Opportunity in Social Entrepreneurship Context

The main question addressed hereafter is: what determines the identification and exploitation of social entrepreneurship opportunities? This study through an integrative literature review has conceptualized four antecedents of SE opportunity.

The first identified element of any SE opportunity is the social problem. Social entrepreneurs go beyond the marketplace and turn their attention to the social arena to identify their venture opportunities. Sources of their opportunities often lie within the social disequilibrium and refer to social problems. The notion that social problems can be perceived as sources of entrepreneurial opportunities is new and unexplored. This stream of research refers specifically to social entrepreneurship. Social problems have been defined by sociology literature twofold: (i) as acts and conditions that violate norms and values presents in a society, and (ii) as societally induced conditions that cause psychic and material suffering for any segment of the population (Eitzen *et al.*, 2010, p. 10). Norm violations refer to the discrepancy between socially accepted standards and reality, such as homelessness, poverty or racial discrimination. As such, what is defined as a social problem differs by audience and by time (for example slavery or women rights). Opportunities refer to a certain time and space. Therefore, social problems by nature are subjective, but they do refer to objective reality. This line of thought resonates with the earlier presented view that although the recognition of opportunity is a subjective process, opportunities themselves are objective phenomena (Shane & Venkataraman, 2000).

The second conceptualized element of SE opportunity is information. It has been established by OBV of entrepreneurship literature that possession of necessary information can be impacted most by the entrepreneur's prior knowledge and experience and his social networks. Prior experience, both business and non-business related, provides the entrepreneur with various information and knowledge. These banks of knowledge coupled with new observations and information can take on new meaning and transform into new value. Knowledge building is a dynamic constructivist process that cannot be planned or foreseen. OBV of entrepreneurship builds on Hayek's view of new knowledge construction (Hayek, 1945). Opportunity development in the light of that theory, is a creative process in which the entrepreneur develops new ideas by recombining dispersed bits of incomplete knowledge that is spread among people, places and time, in novel ways that serve to create new value.

The second factor of information acquisition is social ties. It is an obvious observation that people gain access to information through interactions with other people. The structure of an entrepreneur's social networks determine what kind of information they receive, in terms of both quantity and quality. The strength of their social ties and their intensity will also determine the speed of the receipt of that information. Ties to a variety of different people enhances opportunity discovery since diversity of information is unlikely to occur in homogenous networks (Battilana, 2006). Authors found that networks

provide entrepreneurs with greater access to information and improve the quality, relevance and timeliness of that information (Adler & Kwon, 2002). An extensive social resource base that allows entrepreneurs to discover opportunities more quickly through their network of relationships appears to be critical for social entrepreneurship, taken the limited durability of opportunities. In the context of social entrepreneurship network range stand out as a key feature of established networks. Network range refers to the number of unique knowledge pools (networks) with which the entrepreneur is directly connected (Adler & Kwon, 2002). The more these pools are diverse and set in different social and business settings, the better.

The third antecedent conceptualized in the proposed model is social awareness which builds on cognitive abilities of the individual. In order to develop an opportunity, the entrepreneur has to combine and transform the possessed information in new ways. Differences in cognitive processing among people can influence this transformation process and thus individual propensity to identify opportunity. Some people are better than other at understanding causal links, categorizing information or have a bigger imagination.

Shane (2003) depicted four broad categories underlying the cognitive abilities critical in opportunity recognition: intelligence, perceptive ability, creativity and not seeking risks. The author quotes studies which suggest that differences among people in their intellectual capacity influence their likelihood of opportunity discovery. A person's general intelligence measured by their IQ is correlated in numerous longitudinal studies with the discovery of more valuable opportunities. Perceptive ability is a critical cognitive skill, since opportunity discovery always involves identification, absorption and analysis of information. Similarly creativity, since opportunities rely on novel solutions to open-ended questions. Shane quotes ample research which confirms that creativity is a cognitive ability, which enhances the chance of opportunity discovery. The fourth component of important cognitive abilities listed by Shane is not seeing risks. This property of individuals refers to the interpretation of information. Some people in new information and new ideas will mainly see risks, others will mainly see opportunities. Environmental changes and uncertainty evoke panic in some people, while excitement in others. Opportunity discovery cannot be stifled by risk aversion.

Certain people exhibiting the possession of these four fundamental cognitive properties will engage the information and experience they possess to identify or create social entrepreneurship opportunities. These are entrepreneurs. Yet literature suggests that social entrepreneurs share distinctive features that surpass the above mentioned cognitive skills and refer to social awareness, directing the entrepreneur's attention towards the social arena and pushing him to pursue social goals (Christensen *et al.*, 2006; Curtis, 2007).

Social entrepreneurship theory does suggest a line of scientific pursue signalling the affective element of SE antecedents. Numerous papers have emphasized the role of compassion in individual-opportunity nexus dynamics (Miller & Breton-Miller, 2014) claiming that the process of social entrepreneurship opportunity recognition is embedded in a configuration of individual dispositions, motivations and cognition patterns related to compassion (Dees, 2007). Compassion encourages and channels the engagement of cognition processes towards social problem identification and socially oriented ventures. Compassion has been identifies as one of the most distinctive features of social entrepreneurs,

distinguishing them from other forms. As depicted earlier in the paper, commercial entrepreneurship and social entrepreneurship share many similarities. However, the latter's focus on social mission alongside market-based instruments separates them from all other ventures. Social entrepreneurship literature consistently points to the theoretical importance of compassion (Mair & Marti, 2006; Shaw & Carter, 2007), as a unique motivator of social entrepreneurship, placing the emphasis on the other, rather than on personal gains. Compassion creates a distinct motivational and driving force that complements traditional theories of entrepreneurship.

Whereas compassion will enable the entrepreneur to recognize a social problem, sociological imagination will enable him to critically assess that problem, identify societal patterns behind it and search for solutions. Sociological imagination is a cognitive individual-level meta-structure which combines an openness to and awareness of diversity across social groups and problems with a propensity and ability to synthesize across this diversity. According to Eitzen and Smith (2003, p. 8), individuals who possess sociological imagination: (i) are willing and able to view the social world from the perspective of others, (ii) are capable of perceiving, analysing, and decoding social environments and societal patterns, (iii) can accurately identify effective actions in the social environment, and (iv) possess the behavioural flexibility and discipline to act appropriately. Sociological imagination is associated rather with the system-blame approach, than person-blame approach of social problems and thus with the will to find solutions and act upon them.

Since compassion and sociological imagination are cognitive abilities involving absorption and transformation of information, it appears critical to the process of opportunity identification in SE contexts. Both of these properties are built on intellectual, psychological and social capital building blocks that take time to develop and constantly evolve with time, as the entrepreneurs experience and relationships change. It is just to assume therefore, that individual's SE opportunity recognition is often a long-term process that can be traced back to prior knowledge and experiences, factors associated in research with shaping cognitive skills (Mitchell *et al.*, 2002). Numerous prior events determine the patterns of a persons cognitive processes and their social awareness.

The fourth indispensable element conceptualized as antecedent of SE opportunity refers to the heart of entrepreneurial activity – entrepreneurial mindset. Entrepreneurial mindset, refers to the traits approach of entrepreneurship and has been conceptualized as a set of characteristics defining entrepreneurs through the prism of a passionate search and pursue of opportunity (McGrath & MacMillan, 2000). According to Ireland, Hitt and Simon (2003) entrepreneurial mindset comprises of four components: (i) recognizing entrepreneurial opportunities, (ii) entrepreneurial alertness, (iii) real options logic and (iv) entrepreneurial framework. Recognizing entrepreneurial opportunity is specially defining for social entrepreneurs, for where most people see just social problems, they spot an opportunity (Light, 2008). Entrepreneurial alertness refers to superior insight that informs the pursuit of entrepreneurial opportunities. Real options logic is the ability to deal with the uncertainties inherent in recognizing and pursuing entrepreneurial opportunities, staying realistic and risk-aware. Entrepreneurial framework includes skills such as goal setting, resources acquisition and activation, and determining the timing to make the most of opportunities. SE ventures, as all entrepreneurial acts have a financial bottom line to reach and entrepreneurial decisions need to be well-grounded in market reality for the

venture to be self-sustainable (Shuayto & Miklovich, 2014). Therefore as in all entrepreneurial ventures, the entrepreneurial mindset determines whether the new identified opportunity will be exploited and turned into a new SE venture.

Figure 1 synthesises the above discussion and presents a holistic perspective on opportunity antecedents in SE context. In short, new ideas start with the identification of a social problem and with information based on prior knowledge and new information acquired through networks. Individual perception and judgment will determine the interpretation of the observed reality. Compassion and sociological imagination will enhance social awareness and opportunity alertness. Cognition processes can transform these information and scattered sources of knowledge into new ideas. Therefore diversified experiences and rich networks coupled with diverse cognitive abilities (including compassion and sociological imagination) of the entrepreneur can enhance the process transforming the social problem into an opportunity for entrepreneurial venture. An entrepreneurial mind will search for ways of employing market forces and instruments to transform the ailing social reality and push individuals towards market-based solutions to the identified social problems.

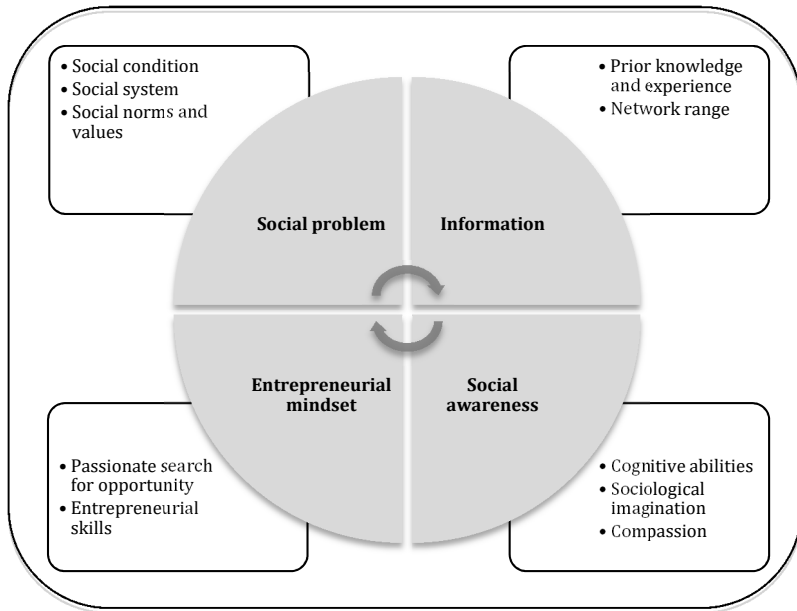


Figure 1. Antecedents of opportunity in SE context

Source: own elaboration.

The above model of antecedents of SE opportunities opens up several potential inquiry paths to pursue. Further operationalisation and testing for interconnectivity is much advised. All of the variables of the model differ from one individual to another. Based on their earlier experience, individual cognitive properties and social ties, some entrepreneurs can acquire, utilize and process information quicker than others. They can therefore make quicker decisions about SE ventures. Grimes *et al.* (2013) suggested the need to study how these microprocesses interact with macro and mezzo level determinants, for

example, when and how macro level determinants will stimulate or restrain these macro-processes involved in opportunity discovery and exploitation. As in traditional commercial entrepreneurial activity, the process of opportunity discovery and exploitation in SE context is highly determined by extrinsic factors, both macro level (environmental) and mezzo level (market specific). Environmental and market conditions will largely influence the entrepreneur's decision whether or not to pursue the identified opportunity (Damanpour *et al.*, 2009; Rodriguez & Guzman, 2013; Howaldt *et al.*, 2015).

CONCLUSIONS

The study has established that social entrepreneurship occurs as a result of opportunity discovery and exploitation as answer to a social problem. Opportunities can be either created (Schumpeterian) and involve the creation of new means-ends frameworks (where others just see the social condition as a problem) or identified (Kirznerian) and optimize the existing means-ends frameworks. Either way, opportunity discovery is based on the transformation of knowledge and experience deriving from various social networks into new ideas and involves various cognitive abilities, among which in the context of SE compassion and sociological imagination appear to be critical. Entrepreneurial mindset is a prerequisite for successful opportunity pursue.

By tracking the process of opportunity discovery and identifying its antecedents, the study hopes to advance our understanding of social entrepreneurship, its distinctive features, differentiating them from other types of entrepreneurial acts.

This study hopes to contribute to the discussion devoted to opportunity-based approach to social entrepreneurship. It synthesizes fragmented pieces of research from the domains of social entrepreneurship, mainstream entrepreneurship and social problems theory and proposes a model of social entrepreneurship opportunity antecedents. The model exposes the role of time in opportunity development suggesting that opportunity recognition is a path dependent process. The model developed in the paper incorporates antecedents of opportunities that lead to opportunity recognition, and emphasizes the role of compassion and sociological imagination. The proposed model brings together state-of-the-art research and extends it by providing a deeper understanding of the entrepreneurial opportunity in SE context. Hopefully, the model can serve as a useful lens for hypotheses formulation and testing within the research domain of social entrepreneurship.

REFERENCES

- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27(1), 17-40.
- Aldrich, H. E., & Kenworthy, A. (1999). The accidental entrepreneur: Campbellian antinomies and organizational foundations. *Variations in organization science: In honor of Donald Campbell*, 19-33.
- Babbie, E. (2012). *The Practice of Social Research*. 13th ed., Belmont, CA: Wadsworth Cengage Learning.
- Battilana, J. (2006). Agency and institutions: The enabling role of individuals' social position. *Organization*, 13(5), 653-676.

- Battilana, J., & Lee, M. (2014). Advancing Research on Hybrid Organizing, *The Academy of Management Annals*, 8(1), 397-441.
- Bull, M. (2008). Challenging tensions: critical, theoretical and empirical perspectives on social enterprise. *International Journal of Entrepreneurial Behavior and Research*, 14(5), 268-275.
- Casson, M. (1982). *The Entrepreneur: An Economic Theory*. Rowman & Littlefield.
- Christensen, C. M., Baumann, H., Ruggles, R., & Sadtler, T. M. (2006). Disruptive innovation for social change, *Harvard Business Review*, 84(12), 94-101.
- Curtis, T. (2007). Finding that grit makes a pearl. A critical re-reading of research into social enterprise. *International Journal of Entrepreneurial Behavior and Research*, 14(5), 276-290.
- Damanpour, F., Walker, R., & Avellaneda, C. (2009). Combinative effects of innovation types and organizational performance: a longitudinal study of service organizations, *Journal of Management Studies*, 46(4), 650-675.
- Dart, R. (2004). The legitimacy of social enterprise. *Non-profit Management and Leadership*, 14(4), 411-424.
- Dees, J. G. (2007). Taking Social Entrepreneurship Seriously. *Society*, 44(3), 24-31.
- Defourny, J., & Nyssens, M. (2010). Conceptions of Social Enterprise and Social Entrepreneurship in Europe and the United States: Convergences and Divergences. *Journal of Social Entrepreneurship*, 1(1), 32-53.
- Di Domenico, M., Haugh H., & Tracey, P. (2010). Social Bricolage. Theorizing Social Value Creation in Social Enterprises. *Entrepreneurship Theory and Practice*, 34(4), 681-703.
- Drucker, P. (1985). *Innovation and entrepreneurship*. Routledge.
- Eitzen, D. S., Zinn, M. B., & Smith, K. E. (2010). *Social Problems*. Pearson Education.
- Grimes, M. G., McMullen, J. S., Vogus, T. J., & Miller, T. L. (2013). Studying the origins of social entrepreneurship: compassion and the role of embedded agency. *Academy of Management Review*, 38(3), 460-463.
- Hausner, J., Lauriusz, N., & Mazur, S. (2008). *Przedsiębiorstwo społeczne. Konceptualizacja*, In J. Hausner (Ed.), *Zarządzanie podmiotami ekonomii społecznej*, skrypt 2, Krakow: MSAP UEK.
- Hayek, F. A. (1945). The use of knowledge in society. *The American Economic Review*, 35(4), 519-530.
- Howaldt, J., Domanski, D., & Schwarz, M. (2015). Rethinking Social Entrepreneurship: The Concept of Social Entrepreneurship under the Perspective of Socio-scientific Innovation Research. *Journal of Creativity and Business Innovation*, 1, 88-98.
- Ireland, R. D., Hitt, M. A., & Simon, D. G. (2003). A model of strategic entrepreneurship: The construct and its dimensions. *Journal of Management*, 29(3), 963-989.
- Jones, G. R., & Butler, J. E. (1992). Managing internal corporate entrepreneurship: An agency theory perspective. *Journal of Management*, 18(4), 733-749.
- Kirzner, I. (1973). *Competition and Entrepreneurship*. Chicago, IL: University of Chicago Press.
- Kirzner, I. M. (1997). *How markets work: Disequilibrium, entrepreneurship and discovery* (No. 133). Coronet Books Incorporated.
- Leś, E. (2008). Nowa Ekonomia Społeczna. Wybrane Koncepcje, *Trzeci Sektor*, nr 2. Warszawa: Fundacja Instytut Spraw Publicznych.
- Li, P. P. (2013). Entrepreneurship as a new context for trust research. *Journal of Trust Research*, 3(1), 1-10.
- Light, P. C. (2008). *The Search for Social Entrepreneurship*. Washington, D.C.: Brookings Institution Press.

- McGrath, R. G., & McMillan, I. C. (2000). *The Entrepreneurial Mindset: Strategies for Continuously Creating Opportunity in an Age of Uncertainty*. Boston, MA: Harvard Business School Press.
- Miller, D., & Breton-Miller, L. (2014). Deconstructing socioemotional wealth. *Entrepreneurship Theory and Practice*, 38(4), 713-720.
- Mitchell, R. K., Busenitz L., Lant T., McDougall P. P., Morse E. A., & Smith J. B. (2002). Toward a Theory of Entrepreneurial Cognition: Rethinking the People Side of Entrepreneurship Research. *Entrepreneurship Theory and Practice*, 27(2), 93-104.
- Mair, J., & Marti, I. (2006). Social Entrepreneurship Research: a source of explanations, prediction and delight. *Journal of World Business*, 41(1), 36-44.
- Praszkier, R., & Nowak, A. (2012). *Przedsiębiorczość społeczna. Teoria i praktyka*. Warszawa: Wolters Kluwer.
- Rodriguez, M. J., & Guzman, C. (2013). Innovation in social economy firms. *Management Decisions*, 51(5), 986-998.
- Shane, S. A. (2000). *A General Theory of Entrepreneurship: The Individual-opportunity Nexus*. Edward Elgar Publishing.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.
- Shaw, E., & Carter, S. (2007). Social entrepreneurship: Theoretical antecedents and empirical analysis of entrepreneurial processes and outcomes. *Journal of Small Business and Enterprise Development*, 14(3), 418-434.
- Schumpeter, J. (1934), *Capitalism, Socialism, and Democracy*. New York: Harper & Row.
- Short, J. C., Moss, T. W., & Lumpkin, G. T. (2009). Research in Social Entrepreneurship: Past Contributions and Future Opportunities. *Strategic Entrepreneurship Journal*, 3, 161-194.
- Shuayto, N., & Miklovich, P. A. (2014). Creating organizational sustainability in social enterprises: the use of evidence-based positioning and market orientation. *Review of Business and Finance Studies*, 5(2), 109-116.
- Stevenson, H. H., & Jarillo, J. C. (1990). A paradigm of entrepreneurship: Entrepreneurial management. *Strategic Management Journal*, 11(5), 17-27.
- Stevenson, H., We-Skillern, J., Austin, J., & Leonard, E. H. (2007). *Entrepreneurship in the Social Sector*. London: Sage Publications.
- Stryjan, J. (2004). The Practice of Social Entrepreneurship. In J. Targalski (Ed.), *Entrepreneurship, Employment and Beyond*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.
- Venkataraman, S., Sarasvathy, S. D., Dew, N., & Forster, W. R. (2012). Reflections on the 2010 AMR decade award: Whither the promise? Moving forward with entrepreneurship as a science of the artificial. *Academy of Management Review*, 37(1), 21-33.
- Whittemore, R., & Knafel, K. (2005). The integrative review. *Journal of advanced nursing*, 52(5), 546-553.
- Yunus, M. (2011). *Przedsiębiorstwo społeczne. Kapitalizm dla ludzi*. Warszawa: Concorda.

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Children-Engaging Social and Environmental Initiatives as Determinants of Corporate Reputation

Ingrida Šmaižienė

ABSTRACT

Objective: The paper aims to explore children-engaging social and green initiatives as determinants of corporate reputation.

Research Design & Methods: The research data were collected by means of a consumer survey (n=354) in Lithuania. During the research, consumers' perception and attitudes towards companies which take children-engaging social and environmental initiatives were surveyed.

Findings: The research findings indicate that consumers tend to agree that companies implementing children-engaging CSR initiatives contribute to the development of children as responsible citizens. However, consumers have a different attitude towards companies which implement children-engaging environmental initiatives and companies which take children-engaging social initiatives.

Implications & Recommendations: The research results suggest that consumers form opinions about the company not only by assessing the company's behaviour towards them, but also by assessing the corporate performance targeted at children. Therefore, companies should consider children-engaging CSR as determinants of corporate reputation.

Contribution & Value Added: The paper provides some empirical evidence on how CSR practices targeted at children may affect corporate reputation.

Article type: research paper

Keywords: children; corporate citizenship; corporate reputation; social responsibility; CSR

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INTRODUCTION

Corporate reputation management encompasses both economic and social (normative or moral) practices (Smaiziene & Jucevicius, 2013). Thus, corporate social responsibility (CSR) gains special attention in the field of corporate reputation management. CSR is referred to as a dimension or a determinant of corporate reputation by a number of scholars (Hillenbrand & Money, 2007; Lynes & Andrachuk, 2008; Smaiziene & Jucevicius, 2009; Bartikowski & Walsh, 2011; Maden *et al.*, 2012; Mehtap & Kokalan, 2012). In the field of academic research, more and more research is conducted not only to theoretically explain the relationship between the concepts of corporate social responsibility and corporate reputation but also to substantiate the relationship empirically.

Despite a common view of positive returns of investment in social responsibility, some of the statements about the benefits of social responsibility lack empirical evidence (Castaldo *et al.*, 2009). The questions of how the corporate signals of social and environmental responsibility activity and achievements are perceived in different stakeholder groups, and how the perception leverages corporate reputation are still open (Arendt & Brettel, 2010).

As any other corporate social responsibility (CSR) activity, CSR initiatives targeted at children can provide not only functional, but also social and emotional value to consumers (Green & Peloza, 2011) and other stakeholders, and serve as a booster of corporate reputation. Therefore, children-engaging social and environmental initiatives are considered to be corporate reputation management tools used for shaping public opinion about the company as a good citizen.

Children-related CSR activities might be observed in the market and/or found in the reports on CSR (i.e. the contest of children drawings 'Save the Baltic Sea' organised by firms, the social initiative 'Return an Unnecessary Toy' during which children were invited to give their unused toys to children care homes, etc.). Despite more frequent manifestation of children-engaging social and environmental initiatives in practice, the scientific literature does not pay much attention to the cognition of such initiatives. Children-oriented business practice, including children-engaging CSR initiatives, has received surprisingly little attention in the academic field of corporate reputation management. Moreover, because of children's vulnerability, children-engaging CSR initiatives call for special consideration. Such a kind of initiatives should be treated not only as a determinant of corporate brand development but also as a determinant of corporate reputational risk.

The paper aims at disclosing children-engaging CSR initiatives as determinants of corporate reputation. The following research questions are discussed: what is the consumers' perception and attitudes towards companies which organise and implement children-engaging social initiatives; what is consumers' perception of and attitudes towards companies which organise and perform children-engaging environmental initiatives. The research methods applied are consumer survey (n=354) and statistical analysis.

The paper is structured as follows. The first section discusses the theoretical insights on the topics of CSR as a determinant of corporate reputation and children-engaging social and environmental initiatives as the tools of corporate reputation management. In the second part of the paper, the research logic and methods are presented. Research results are presented and discussed in the third part of the paper.

LITERATURE REVIEW

Social and Environmental Initiatives as Determinants of Corporate Reputation

Results from previous studies suggest that there is a common view that CSR activities send positive signals to the stakeholders and society (Linthisum *et al.*, 2010; Maden *et al.*, 2012). Social responsibility practice is considered a determinant of positive associations and favourability towards a company among consumers, the community and other stakeholders (Pomering & Johnson, 2009; Lin *et al.*, 2012; Deng *et al.*, 2013). The public opinion, which is formed on the ground of corporate social responsibility activities, is considered to be a part of corporate reputation portfolio (Smaiziene & Jucevicius, 2013). Via positive social reputation, corporate social responsibility provides indirect economic benefits (Linthisum *et al.*, 2010) and the impact upon the company's competitiveness (Vilanova *et al.*, 2009). Thus, the reputation forming on the basis of the firm's social responsibility activities and achievements – as all reputations of the corporate reputation portfolio – has to be managed purposefully and systematically.

The increasing importance of social responsibility reputation (or social reputation) and a demand to be socially responsible are based on the belief that corporations develop their practice in the environment shared with the society (Gibbs, 2012). Thus, business organisations are responsible not only for pursuing profits and creating value for shareholders, but also for contributing to the common well-being. Previously, it was believed that that companies contribute to societal development by paying taxes (Timonen & Luoma-aho, 2010). Nowadays, business faces the pressure to produce outcomes broader than economic profits (Tracey *et al.*, 2005; Rego *et al.*, 2010) and contributions bigger than taxes. Stakeholders are more subject to concern what hides under brands, attractive packaging and corporate communication programmes. More and more stakeholders are interested not only in products but also in what companies produce those products (Dawkins, 2004; Pomering & Johnson, 2009). Socially constructed expectations and the wish that companies would take social role are getting stronger (Shinkle & Spencer, 2012). As Crittenden *et al.* (2011) state, modern organisations need social engagement programmes which not only generate social benefits but also enable to reduce business and reputational risk and create market opportunities for competitive advantage.

Initiatives of corporate social responsibility (CSR) are closely related to corporate citizenship paradigm. A modern organisation faces the challenge and the requirement to be a good citizen. Acting as a good citizen means to take volunteer obligations to meet stakeholders' social and environmental expectations beside obligatory economic and legal commitments (Pomering & Johnson, 2009; Sison, 2009; Babiak & Trendafilova, 2011; Lin *et al.*, 2012).

It should be admitted that CSR and corporate citizenship meaning, as well as performance are treated very differently, both in the academic field and business practice. In most cases environmental initiatives are considered to be a part of corporate social responsibility. Yet, nowadays, some scientists and practitioners, in order to seek for explicitness, suggest separating the concepts of social responsibility and environmental responsibility (Orlitzky *et al.*, 2011). For example, Lynes and Andrachuk (2008) suggest changing the CSR term (corporate social responsibility) into CSER (corporate social and environmen-

tal responsibility), which better reflects a company's obligations to act as a socially responsible and environment friendly player. The voluntary activity of an organisation aimed to increase the welfare of the people inside and outside the organisation should be considered as social initiatives. The voluntary activity of an organisation targeted to natural environment and planet should be considered environmental initiatives (Graafland & Smid, 2004).

The management of corporate social and environmental reputation involves an organisation's attempts to be a good citizen and to look as a good citizen in the eyes of stakeholders. In other words, when shaping corporate reputation, a company organises and performs social and green initiatives, as well as communicates them to chosen key stakeholders. Performing and communicating corporate social initiatives are considered to be the instruments for shaping social reputation. Performance and communication of corporate environmental initiatives are regarded to be the instruments for building green (environmental) reputation.

Both social and environmental initiatives distinguish with diversity (Truscott *et al.*, 2009). Corporate social and environmental responsibilities can be expressed through sponsorship, donations, employee education and well-being programs, cause-related marketing, the support for local, national and worldwide social and environmental initiatives, community engagement, etc. The selection of the type of CSR initiatives should be a scrutinised decision because the influence of CSR performance upon an organisation's reputation varies not only in different groups of stakeholders, but also in applying different instruments of social and environmental activity (Brammer & Pavelin, 2006; Maden *et al.*, 2012).

After selecting the type of a CSR initiative, another step in building social reputation and green reputation is communication about a company's willingness to act in a social and environment friendly manner and the initiatives being implemented. When communicating social and environmental issues, the creation of the visibility of the company as a socially and environmentally responsible society member and favourability towards it are pursued.

As Veleva (2010) notes, in practice only some organisations communicate their social and environmental initiatives. Most often, the instrument of communicating social and green initiatives is chosen: the company website presents the company's declarations, practice and achievements related to the its involvement in social and environmental issues (Capriotti & Moreno, 2007). Another way used quite often to send CSR signals are cause-related marketing campaigns.

In the attempts to communicate CSR activities and achievements companies encounter some difficulties and challenges. Traditional ways to communicate social and green responsibility do not work very well (Cohen, 2009). CSR communication through cause-related marketing campaigns often faces consumers' disbelief and scepticism (Pomeroy & Johnson, 2009). Even more – these authors state that irresponsible behaviour of organisations faces much greater attention of stakeholders than their positive initiatives.

When managing corporate reputation, businesses need some new methods and means (both in the sense of content and form) to send signals about their willingness and readiness to be a good citizen. One of the ways is the involvement of children into social

and environmental initiatives performed by the organisation in order to demonstrate the care of children and the well-being of the society.

Involvement of Children into Corporate Social and Environmental Initiatives when Developing Corporate Reputation

From the legal viewpoint, a child is every human being under 18, if the laws do not state otherwise. This viewpoint is followed in this research.

Traditionally children were considered as future audience, i.e. future consumers. Nowadays, more often children are named an important group of stakeholders due to their increased purchasing power and influence upon the family buying patterns and decisions (Calvert, 2008; Crane & Kazmi, 2010; Hart *et al.*, 2011; de la Ville, 2014; Estrela *et al.*, 2014). When naming children stakeholders, the viewpoint is adopted that an organisation's activity can directly or indirectly influence children's welfare and / or can grant or withdraw resources that are needed for the activities of an organisation (Maignant & Ferrel, 2004).

Most research on corporate reputation focuses on the adult subjects of the market, children are mentioned fragmentarily. In the field of reputation management, it usually is confined to the viewpoint that multinational corporations that conduct their activity in developing countries should incorporate such issues as child labour in the supply chains into their CSR policy. The systemic viewpoint of children as one of stakeholders' group is missing.

Children as stakeholders face much more attention in the field of marketing. A lot of attention is paid to the processes of the socialisation of children as consumers discloses how traditional (i.e., television commercials) and non-traditional (i.e., ads online, in social networks and integrated in video games) advertising influences children as consumers' attitudes and behaviour (Rozendaal *et al.*, 2013; Carlson & Clarke, 2014; An & Kang, 2014; Simoes & Agante, 2014). Such research is focused on the cognition of children as consumers, children's understanding of commercial content, as well as the search for ways to communicate a brand message effectively and develop loyal consumers. Some attention is paid to moral issues of advertising. However, possible influence of such activities upon an organisation's reputation is not analysed or discussed.

The penetration of everyday life of children by television and the Internet enables companies to present the intensive and convincing brand communication flow. Children and adolescents, who have neither knowledge nor the analytical skills to deal with tempting offers of companies (Bergadaa, 2007), become an easy target for business.

Thus, non-governmental organisations and researchers representing the field of marketing ethics draw the attention to the vulnerability of children as stakeholders. Business organisations are encouraged to voluntarily take responsibility for possible influence of their activities upon children's welfare instead of developing the relations with children from the brand development perspectives only. For example, producers and sellers of processed food and appetisers are encouraged to take their responsibility for the formation of unhealthy nutrition habits and increasing overweight and obesity of children (Mallarino *et al.*, 2013).

It is possible to claim that these days children-oriented business issues draw greater attention from parents, the community and institutions taking care of the children rights

protection. This is very important from the perspective of corporate reputation management because stakeholders form their perception about an organisation by assessing how the organisation behaves towards them and how the organisation behaves towards other stakeholders (Hillenbrand & Money, 2007). Thus the organisation's activities targeted at children influence consumers' and other organisation stakeholders' perception of and attitudes towards the organisation.

Referring to the above-mentioned viewpoints, children-oriented business activities and initiatives can and must be treated as a determinant of corporate reputational risk. The relationship between an organisation and children and children-related issues has to be planned and developed systematically, not only from the economical but also from the reputation risk management perspective. Reputation strategy should clearly show how many and what obligatory and voluntarily taken child-related responsibilities are initiated by an organisation.

Crane and Kazmi (2010) recommend seven corporate responsibilities to children. The children-related responsibilities involve not only moral and physical protection, the conditions of parents' employment, but also the involvement into initiatives of supporting education, strategic philanthropy, and engagement into partnership for change.

The demonstration of such child-related responsibilities has changed some direct children-oriented advertising, due to ethical issues on which discussions emerge more often. Organisations search for new ways and channels to remind children and their parents and the community about themselves, to form the impression of publicity, the reputation of a good citizen and favourability among groups of these stakeholders. One of the ways is targeting of social responsibility initiatives at schools (Calvert, 2008; Doster & Tyrrel, 2011) and organising children-engaging social and environmental initiatives. Such green and social initiatives are usually related to the organisation's striving to voluntarily take social and environmental responsibility, as well as to send signals to other stakeholders that the company contributes to the development of children as responsible citizens and the well-being of the society, as well.

MATERIAL AND METHODS

Sample and Data Collection

Children-engaging corporate social and environmental initiatives as determinants of corporate reputation are a fresh topic in the field of reputation management and they lack both theoretical and empirical investigation. Therefore, the exploratory research was chosen as an attempt to get some empirical insights and lay the groundwork for future studies.

The survey took place in Lithuania in May 2014. The data were collected by using two ways of the survey: survey-in-written and coordinated survey online.

A total of 354 filled-in questionnaires were received. A larger part of the respondents were women (79.1%) and people with higher education. 59.6% of the respondents have under-age children. Among them, 62.4% of the respondents have at least one child younger than 6 years old; 60.4% of the respondents have at least one child at the age of 6-11; 58.9% of the respondents have at least one child at the age of 12-16 years. Table 1 presents other characteristics of the sample.

Table 1. Sample profile (n=354)

Characteristics	Frequency	Percent	Characteristics	Frequency	Percent
Age:					
Up to 20 years	18	5.08	40-49 years	45	12.71
20-29 years	137	38.70	50-59 years	14	3.95
30-39 years	132	37.29	60 years and more	8	2.26
Education:					
Secondary	55	15.54	Higher university, bachelor	143	40.40
Vocational	17	4.80	Higher university, master's	104	29.38
College	23	6.50	Doctor of sciences	12	3.39
Monthly income per household:					
Up to 1500 LTL	69	19.49	3501-4500 LTL	51	14.41
1501-2500 LTL	83	23.45	More than 4500 LTL	78	22.03
2501-3500 LTL	73	20.62			

Source: own study.

Measures

During the research, consumers' perception of and attitudes towards companies which take children-engaging social and environmental initiatives, were surveyed.

In the beginning of the questionnaire the term social initiatives of firms was explained as actions/programmes of businesses, aimed to increase the well-being in certain groups of people (seniors at care home, children at care home and so on). In order to understand the term children-engaging social initiatives better, some examples were presented: the initiative 'Cheer on the Senior People with a Christmas Card' organised by Firm A, during which children were invited to draw cards for the residents of the senior care home. The second presented example was the initiative called 'Return an Unnecessary Toy' organised by Firm B, during which children were invited to give away unused toys to children care homes. The third example presented was the initiative 'Share A Christmas Delicacy' took by Firm C, during which children were invited to bring some chocolate, sweets or other delicacies, which together with the delicacies presented by the firm were carried to poor families.

The environmental initiatives of firms were explained as the actions of companies aimed to protect and foster nature. In order to provide better understanding of the term children-engaging environmental (or green) initiatives, the following examples were presented: the contest of children drawings 'I Sort Trash' organised by Firm D; the initiative to collect secondary raw materials at schools organised by Firm E; the contest of children drawings 'Protect Lithuanian Forests' organised by Firm F.

In order to analyse consumers' perception and attitudes, two five-point Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree) were used. The first scale (Table 2) is aimed to find out consumers' perception and attitudes in respect of companies taking children-engaging social initiatives. The scale consists of eight Likert items. In the

Table 2. The scale for measuring consumers' perception and attitudes towards companies which take children-engaging social initiatives

	Likert items		Internal consistency
Favourability	SI_1	Companies, when organising children-engaging social initiatives, contribute to developing children as responsible citizens	Cronbach's alpha = 0.791
	SI_2	I like children-engaging social initiatives of companies	
	SI_3	I feel greater favourability towards companies organising children-engaging social initiatives than towards the ones that do not pay any attention to children	
	SI_4	I willingly agree / would agree that my child would take part in social initiatives organised by companies	
Scepticism/animosity	SI_5	Companies engaging children in their social initiatives pursue to enlarge their profit and ignore children's interests	
	SI_6	Companies should take their social initiatives by themselves and not involve children in them	
	SI_7	When organising children-engaging social initiatives, companies behave unethically	
	SI_8	I would like companies' social initiatives engaging children to be more strictly limited by legal acts	

Source: own study.

Table 3. The scale for measuring consumers' perception and attitudes towards companies which take children-engaging environmental initiatives

	Likert items		Internal consistency
Favourability	EI_1	Companies, when organising children-engaging environmental initiatives, contribute to developing children as responsible citizens	Cronbach's alpha = 0.812
	EI_2	I like children-engaging environmental initiatives of companies	
	EI_3	I feel greater favourability towards companies organising children-engaging environmental initiatives than towards the ones that do not pay any attention to children	
	EI_4	I willingly agree / would agree that my child would take part in environmental initiatives organised by companies	
Scepticism/animosity	EI_5	Companies engaging children into their environmental initiatives pursue to enlarge their profit and ignore children's interests	
	EI_6	Companies should take their environmental initiatives by themselves and not involve children in them	
	EI_7	When organising children-engaging environmental initiatives, companies behave unethically	
	EI_8	I would like companies' environmental initiatives engaging children to be more strictly limited by legal acts	

Source: own study.

scale, four Likert items are aimed to measure consumers’ favourability in respect of companies taking children-engaging social initiatives. The other four statements pursue to measure consumers’ scepticism and animosity in respect of such companies.

The second scale (Table 3) is aimed to disclose consumers’ perception and attitudes towards companies organising children-engaging *environmental initiatives*. In the scale four Likert items are meant to measure consumers’ favourability towards companies taking children-engaging green initiatives. Other four statements are aimed to measure consumers’ scepticism and animosity towards such companies.

Referring to the Cronbach’s alpha coefficients, internal consistency of both scales is good.

RESULTS AND DISCUSSION

Table 4 presents general descriptive statistics for the sample. The data shows consumers’ perception and attitudes in respect of companies which organise and implement children-engaging social and green initiatives.

The research data suggest that the respondents tend to agree that companies implementing children-engaging social and environmental initiatives contribute to developing children as responsible citizens (SI_1; EI_1). The perception and attitudes of the respondents are slightly more favourable towards companies which take children-engaging environmental initiatives, when compared to the perception of the companies which take children-engaging social initiatives.

Table 4. Perception and attitudes towards companies which take children-engaging social initiatives (SI) and environmental initiatives (EI)

	Perception and attitudes towards the companies which take children-engaging social initiatives			Perceptions and attitudes towards the companies which take children-engaging green initiatives		
	Likert items	Median	Mode	Likert items	Median	Mode
Favourability	SI_1	4.00	4.00	EI_1	4.00	4.00
	SI_2	4.00	4.00	EI_2	4.00	4.00
	SI_3	3.00	4.00	EI_3	4.00	4.00
	SI_4	3.00	4.00	EI_4	4.00	4.00
Scepticism/animosity	SI_5	3.00	3.00	EI_5	3.00	3.00
	SI_6	3.00	3.00	EI_6	3.00	2.00
	SI_7	3.00	3.00	EI_7	2.00	2.00
	SI_8	3.00	3.00	EI_8	3.00	3.00

Source: own study.

The emotional attitudes are slightly more positive towards companies taking green initiatives (SI_3; EI_3). The research participants would more willingly agree that their children would get involved in environmental initiatives taken by companies than in social ones (SI_4; EI_4).

The respondents tend to disagree that companies which take children-engaging environmental initiatives behave unethically. The better perception is about the ethical issues

of companies taking children-engaging environmental initiatives than social initiatives (SI_7, EI_7).

The respondents do not express their strict perception of the necessity to regulate children's engagement in social and green initiatives more strictly (SI_8; EI_8). Thus, it is evident that the respondents' scepticism and animosity towards companies organising children-engaging social initiatives is slightly stronger than towards companies organising children-engaging green programmes (SI_6, 7; EI_6, 7). The divergence of men's and women's opinions is presented in Table 5.

The data obtained during the research suggest that the women's perception of and attitudes towards companies that organise children-engaging social and environmental initiatives are more positive than of the men. The favourability of the women towards such companies is greater, and the animosity and scepticism is weaker.

The women more often think that such companies contribute to developing children as responsible citizens (SI_1; EI_1). The women's emotional attitudes towards companies which take children-engaging social and green initiatives are also more favourable than of men (SI_2, 3; EI_2, 3). The women more willingly agree that their children would participate in such social and environmental initiatives organised by companies (SI_4; EI_4).

The animosity of the men towards companies which organise children-engaging social and environmental programmes is greater than of the women. The men-respondents are subject to agree more that companies engage children in their social and green initiatives considering their self-interested motives, i.e., they pursue to enlarge their profit not regarding children's interests (SI_5; EI_5).

The men agree more than the women with the statements that such companies behave unethically (SI_7, EI_7).

Table 5. Perception and attitudes of women and men towards companies which take children-engaging social and environmental initiatives

	Perceptions and attitudes towards companies, which take children-engaging social initiatives				Perceptions and attitudes towards companies, which take children-engaging green initiatives			
	Likert items	Mean rank		Asymp. sig (2-tailed)	Likert items	Mean rank		Asymp. sig (2-tailed)
		Women	Men			Women	Men	
Favourability	SI_1	186.29	138.42	0.000	EI_1	184.12	147.26	0.003
	SI_2	187.04	135.51	0.000	EI_2	185.35	142.08	0.001
	SI_3	185.37	141.99	0.001	EI_3	184.40	145.76	0.003
	SI_4	184.43	145.68	0.003	EI_4	184.55	145.19	0.002
Scepticism/ animosity	SI_5	170.08	201.48	0.013	EI_5	170.26	200.76	0.002
	SI_6	169.24	204.74	0.006	EI_6	168.86	206.21	0.003
	SI_7	170.62	199.38	0.025	EI_7	168.75	206.75	0.003
	SI_8	175.51	180.35	0.076	EI_8	174.01	186.17	0.344

Source: own study.

Limitations

In this study only the perception and attitudes of consumers was investigated. Thus, other stakeholders' (employees, NGOs, regulatory institutions, media, partners, etc.) perception

of companies that take children-engaging CSR initiatives have not been disclosed.

More research will be required to answer the following questions: (a) how does the number of children in the family affect the parents' perception and attitudes in respect of companies that organise children-engaging social and environmental initiatives; (b) how does the age of children in the family affect the parents' perception of and attitudes towards companies organising and implementing children-engaging CSR practice; (c) what is the correlation between the stakeholders' age, education, income and their perception of companies which organise children-engaging social and environmental initiatives.

Future research should also focus on how companies producing different types of products (milk, fast food, sweets, books, toys, cars, toothpaste, etc.) are perceived by consumers when taking children-engaging CSR initiatives. It should be also empirically tested if there are any significant differences in consumers' perception of local/national companies and multinational companies which take and communicate children-engaging social and green initiatives.

In this study, the definitions of social initiatives and environmental (green) initiatives are in general. In future research it would be useful to distinguish at least three types of social and environmental initiatives – local, national, worldwide. Future research should focus on identifying stakeholders' perception and attitudes in respect of companies that organise and implement children-engaging local/national/worldwide social and environmental practice.

CONCLUSIONS

The paper makes four contributions to corporate reputation management studies. First, this study provides theoretical and empirical insights into how children-engaging social responsibility initiatives can affect building corporate reputation. The results suggest that children as a group of stakeholders need special consideration. Involving children in corporate social and environmental practice should be treated not only as an act of being a good citizen but also as a determinant of corporate reputational risk.

Second, the empirical results verify the theoretical approach that stakeholders form opinions about a company not only by assessing how the company behaves towards them, but also by assessing how the organisation treats other stakeholders. The paper extends the understanding of how business practices targeted at children may affect corporate reputation.

Third, the research results confirm the theoretical approach that the influence of CSR performance upon corporate reputation varies in applying different instruments of corporate social responsibility. The findings of the research indicate that consumers' perception and attitudes are slightly more favourable towards the companies which take children-engaging environmental initiatives, when compared to the perception of the companies which take children-engaging social initiatives.

Lastly, the research results support the theoretical approach that the influence of CSR activity upon corporate reputation varies in different groups of stakeholders. The empirical results suggest the gender differences in perceiving CSR activities with the involvement of children. Women's perception and attitudes in respect of companies that organise children-engaging social and environmental initiatives are slightly more positive than men's.

The animosity and scepticism of men in respect of companies which organise children-engaging social and environmental programs are stronger than of women.

Further research should focus on exploring both consumers and other stakeholders' perception of companies that take local, national and worldwide children-engaging social and green initiatives. More research will be required to disclose not only the emotional, but also the functional value of such initiatives and their possible impact on corporate performance results.

Consumers' socio-demographic characteristics should be disclosed as determinants of consumer perceptions and attitudes in respect of companies which organise and implement children-engaging social and green initiatives. It should be empirically tested if consumers' perception and attitudes vary towards local and foreign companies taking children-engaging CSR initiatives, as well as towards companies producing different types of products.

Researchers are encouraged to empirically test how children-engaging social and environmental initiatives are perceived in the countries with different cultural and economic characteristics.

REFERENCES

- An, S., & Kang, H. (2014). Advertising or games? Advergaming on the internet gaming sites targeting children. *International Journal of Advertising*, 33(3), 509–532. doi: 10.2501/IJA-33-3-509-532
- Arendt, S., & Brettel, M. (2010). Understanding the influence of corporate social responsibility on corporate identity, image and firm performance. *Management Decisions*, 48(10), 1469–1491. doi: 10.1108/00251741011090289
- Babiak, K., & Trendafilova, S. (2011). CSR and environmental responsibility: motives and pressures to adopt green management practices. *Corporate Social Responsibility and Environmental Management*, 18, 11–24. doi: 10.1002/csr.229
- Bartikowski, B., & Walsh, G. (2011). Investigating mediators between corporate reputation and customer citizenship behaviors. *Journal of Business Research*, 64(1), 39–44. doi: 10.1016/j.jbusres.2009.09.018
- Bergadaa, M. (2007). Children and business: pluralistic ethics of marketers. *Society and Business Review*, 2(1), 5–73. doi: 10.1108/17465680710725272
- Brammer, S. J., & Pavelin, S. (2006). Corporate reputation and social performance: the importance of fit. *Journal of Management Studies*, 43(3), 435–455.
- Calvert, S. L. (2008). Children as consumers: advertising and marketing. *Future of Children*, 18(1), 205–234.
- Capriotti, P., & Moreno, A. (2007). Corporate citizenship and public relations: The importance and interactivity of social responsibility issues on corporate websites. *Public Relations Review*, 33(1), 84–91.
- Carlson, L., & Clarke, B. (2014). Reassessing the current state of advertising to children. *International Journal of Advertising*, 33(3), 429–436. doi: 10.2501/IJA-33-3-429-436
- Castaldo, S., Perrini, F., Misani, N., & Tencati, A. (2009). The Missing Link between Corporate Social Responsibility and Customer Trust: The Case of Fair Trade Products. *Journal of Business Ethics*, 84(1), 1–15. doi: 10.1007/s10551-008-9669-4

- Cohen, J. (2009). Getting the stain out of sustainable brands. In J. Klewes & R. Wreschniok (Eds.), *Reputation Capital. Building and maintaining Trust in the 21st Century* (pp. 236–248). London: Springer.
- Crane, A., & Kazmi, B. A. (2010). Business and children: Mapping impacts, managing responsibilities. *Journal of Business Ethics*, 91(4), 567–586. doi: 10.1007/s10551-009-0132-y
- Crittenden, V. L., Crittenden, W. F., Pinney, C. C., & Pitt, L. F. (2011). Implementing global corporate citizenship: An integrated business framework. *Business Horizons*, 54(5), 447–455. doi: 10.1016/j.bushor.2011.04.006
- Dawkins, J. (2004). Corporate responsibility: the communication challenge. *Journal of Communication Management*, 9(2), 108–119.
- De La Ville, V. I. (2014). Young people as company stakeholders? Moving beyond CSR... *Young Consumers*, 15(1), 3–16.
- Deng, X., Kang, J., & Low, B. S. (2013). Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of Financial Economics*, 110(1), 87–109. doi: 10.1016/j.jfineco.2013.04.014
- Doster, L., & Tyrrell, J. M. (2011). Marketing communications in the classroom: The parents' view. *Journal of Marketing Communications*, 17(1), 1–15.
- Estrela, R. C., Pereira, F. C., & Ventura, J. B. (2014). Children's socialization in consumption: the role of marketing. *EuroMed Journal of Business*, 9(3), 222–251. doi: 10.1108/EMJB-10-2013-0051
- Gibbs, C. (2012). Corporate citizenship and corporate environmental performance. *Crime, Law and Social Change*, 57, 345–372. doi: 10.1007/s10611-012-9365-2
- Green, T., & Pelozo, J. (2011). How does corporate social responsibility create value for consumers? *Journal of Consumer Marketing*, 28(1), 48–56.
- Graafland, J. J. (2004). Collusion, reputation damage and interest in code of conduct; the case of Dutch construction company. *Business Ethics: A European Review*, 2-3(13), 127–142.
- Hart, J., Paludan, M. B., Steffen, L., & O'Donoghue, G. (2011). Working with children as stakeholders in development: the challenges of organizational change. *Development in Practice*, 21(3), 330–342. doi: 10.1080/09614524.2011.558066
- Hillenbrand, C., & Money, K. (2007). Corporate responsibility and corporate reputation: Two separate concepts or two sides of the same coin? *Corporate Reputation Review*, 10(4), 261–277.
- Lin, C. P., Tsai, Y. H., Joe, S. W., & Chiu, C. K. (2012). Modelling the relationship among perceived corporate citizenship, firms' attractiveness, and career success expectation. *Journal of Business Ethics*, 105(1), 83–93. doi: 10.1007/s10551-011-0949-z
- Linthisum, C., Reitenga, A. L., & Sanchez, J. M. (2010). Social responsibility and corporate reputation: The case of the Arthur Andersen Enron audit failure. *Journal of Accounting and Public Policy*, 29(2), 160–176.
- Lynes, J. K., & Andrachuk, M. (2008). Motivations of corporate social and environmental responsibility: A case study of Scandinavian Airlines. *Journal of International Management*, 14(1), 377–390. doi: 10.1016/j.intman.2007.09.004
- Maden, C., Arikan, E., Telci, E. E., & Kantur, D. (2012). Linking corporate social responsibility to corporate reputation: a study understanding behavioral consequences. *Procedia – Social and Behavioural Sciences*, 58(1), 655–664. doi: 10.1016/j.sbspro.2012.09.1043
- Maignan, I., & Ferrell, O. C. (2004). Corporate social responsibility and marketing: An integrative framework. *Journal of the Academy of Marketing Science*, 32(1), 3–19.

- Mallarino, C., Gomez, L. F., Gonzalez-Zapata, L., Cadena, Y., & Perra, D. C. (2013). Advertising of ultra-processed foods and beverages: children as a vulnerable population. *Revista De Saude Publica*, 47(5), 1006–1010. doi: 10.1590/s0034-8910.2013047004319
- Mehtap, O., & Kokalan, O. (2012). The relationship between corporate reputation and organizational citizenship behaviour: a comparative study on TV companies and banks. *Quality & Quantity*, 47(1), 3609–3619.
- Orlitzky, M., Siegel, D. C., & Waldman, D. A. (2011). Strategic corporate social responsibility and environmental sustainability. *Business & Society*, 50(1), 6-27.
- Pomeroy, A., & Johnson, L. W. (2009). Constructing a corporate social responsibility reputation using corporate image advertising. *Australasian Marketing Journal*, 17, 106–114. doi: 10.1016/j.ausmj.2009.05.006
- Rego, A., Leal, S., Cunha, M. P., Faria, J., & Pinho, C. (2010). How the perceptions of five dimensions of corporate citizenship and their inter-inconsistencies predict affective commitment. *Journal of Business Ethics*, 94(1), 107–127. doi: 10.1007/s10551-009-0252-4
- Rozendaal, E., Slot, N., van Reijmersdal, E. A., & Buizen, M. (2013). Children's responses to advertising in social games. *Journal of Advertising*, 42(2-3), 142–154. doi: 10.1080/00913367.2013.774588
- Shinkle, G. A., & Spencer, J. W. (2012). The social construction of global corporate citizenship: Sustainability reports of automotive corporations. *Journal of World Business*, 47(1), 123–133. doi: 10.1016/j.jwb.2011.02.003
- Simoes, I., & Agante, L. (2014). The impact of event sponsorship on Portuguese children's brand image and purchase intentions. The moderator effects of product involvement and brand familiarity. *International Journal of Advertising*, 33(3), 533–556. doi: 10.1590/S0034-8910.2013047004319
- Sison, A. J. G. (2009). From CSR to corporate citizenship: Anglo-American and Continental European perspectives. *Journal of Business Ethics*, 89(1), 235–246.
- Smaiziene, I., & Jucevicius, R. (2009). Corporate reputation: multidisciplinary richness and search for a relevant definition. *Inzinerine Ekonomika – Engineering Economic*, 62(2), 91-101.
- Smaiziene, I., & Jucevicius, R. (2013). Structural composition of a corporate reputation portfolio (Sustainable development perspective). *International Journal of Business and Management*, 8(15), 44-56. doi: 10.5539/ijbm.v8n15p44
- Timonen, L., & Luoma-aho, V. (2010). Sector-based corporate citizenship. *Business Ethics: A European Review*, 19(1), 1-13. doi: 10.1111/j.1467-8608.2009.01575.x
- Tracey, P., Phillips, N., & Haugh, H. (2005). Beyond Philanthropy: Community Enterprise as a Basis for Corporate Citizenship. *Journal of Business Ethics*, 58, 327–344.
- Truscott, R. A., Bartlett, J. L., & Tywoniak, S. A. (2009). The reputation of the corporate social responsibility industry in Australia. *Australasian Marketing Journal*, 17(1), 84-91. doi: 10.1016/j.ausmj.2009.05.001
- Veleva, V. R. (2010). Managing corporate citizenship: A new tool for companies. *Corporate Social Responsibility and Environmental Management*, 17(1), 40–51. doi: 10.1002/csr.206
- Vilanova, M., Lozano, J., & Arenas, D. (2009). Exploring the nature of the relationship between CSR and competitiveness. *Journal of Business Ethics*, 87(1), 57-69.

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The Use of Game Theory for Making Rational Decisions in Business Negotiations: A Conceptual Model

Kęstutis Peleckis

ABSTRACT

Objective: The objective of this paper is a comparative analysis of the world literature on game theory and its applicability for rational decision-making in negotiations and creation of a model supporting strategic decisions in negotiations.

Research Design & Methods: Systematic, comparative, logical analysis and synthesis of the scientific literature. In order to create an algorithm of negotiations statements on theory of graphs, game theory and theory of heuristic algorithm were applied.

Findings: The article proposes an algorithm which combines the game theory approach with heuristic algorithms in order to reflect the specifics of negotiations better. Such an algorithm can be used to support strategic decisions in negotiations and is useful for better understanding of the strategic management of negotiating processes.

Implications & Recommendations: The proposed mathematical algorithm for the strategy formulation of international business negotiations can be used in electronic business negotiations, both as a standalone tool, or as partially requiring support by the negotiator.

Contribution & Value Added: The game theory methods support rational solutions in business negotiations, as they enable to analyse the interacting forces. This is particularly relevant in international business negotiations, where participants from different cultures can be faced with numerous uncertainties.

Article type: conceptual article

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INTRODUCTION

The main objective of negotiations is to reach an option that would be acceptable to both parties – to find equilibrium points of mutual needs and opportunities. In order to understand better the relationships between participants of the negotiation process, it is necessary to use mathematical methods to facilitate the search of alternatives and decision-making. Game theory is regarded a useful framework for supporting negotiations, as it is a method suitable for the analysis of interactions between objects which have their own goals. This is particularly important in international business negotiations, where a number of inconsistencies can arise between the representatives of different cultures. The problem of inconsistencies – is still insufficiently analysed in the scientific literature. The applicability of game theory in strategic decision making during international business negotiations does not provide a universal negotiation support model based on heuristic approach. The object of this research is to describe the strategic decision-making process of negotiations by applying the game theory methods. The aim is to provide a comparative analysis of the world literature on game theory and its applicability for strategic decision-making in negotiations and the creation of a model supporting strategic decisions in negotiations. The research methods rely on a systematic, comparative, logical analysis and synthesis of the scientific literature in order to create an algorithm of negotiations statements on theory of graphs. Game theory and theory of heuristic algorithm were used for this.

In the modern business world, decision-making becomes an extremely important activity. Furthermore, it is common that individuals or organisations are creating coalitions when they are negotiating on projects and carry out contracts. Negotiations cover a wide range of activities which include the prior negotiation and post-negotiation analysis, at both local and social levels. Effective decision making in negotiations might ensure the company's future. Major decisions require a detailed analysis of future negotiations interactions, which would allow to meet the priorities and interests of another party to negotiations. Game theory can help to achieve these objectives, since it is a mathematical discipline that deals with the interactions of parties having their targets (Rufo *et al.*, 2014). It is a powerful tool for understanding the relationships that develop in the processes of cooperation and competition. The main objective during the negotiations in decision-making processes is to choose alternatives that would be acceptable to both parties, and it should be carried out within a reasonable period of time (Oderanti *et al.*, 2012; Chuah *et al.*, 2014; Kozina, 2014; Lin *et al.*, 2014; Marey *et al.*, 2014; Suh & Park, 2010; Rufo *et al.*, 2014). The friction of different interests, such as competition, or other challenging situations often arise from illegal practices which are expected from human relations. The nature of the subject of negotiations arise from a variety of disciplines, such as artificial intelligence, economics, social sciences and game theory (Marey *et al.*, 2014; Baarslag *et al.*, 2014; Chuah *et al.*, 2014). The models of strategic negotiation have a wide range of applications which can be used for resources and task allocation mechanisms, for conflict resolution measures, and for decentralised information services (Baarslag *et al.*, 2014; Rufo *et al.*, 2014).

The possibilities of the application of game theory for management tasks were examined by various authors (Aurangzeb & Lewis, 2014; Brown & Shoham, 2009; Rufo *et al.*, 2014; Marey *et al.*, 2014; Chuah *et al.*, 2014; Suh & Park, 2010; Lin *et al.*, 2014; Oderanti

et al., 2012; Deng *et al.*, 2014; Hao *et al.*, 2014; Houser & McCabe, 2014; Yu *et al.*, 2013; Pooyandeh & Marceau, 2014; Yuan & Ma, 2012; Wilken *et al.*, 2013; Annabi *et al.*, 2012). The article explores game theory and important aspects of negotiations.

MATERIAL AND METHODS

The Algorithm of International Business Negotiation Process

Negotiations are based on the knowledge of another party to negotiations, consequently, the tactics of strategy may vary at each issue. So, it is appropriate to apply heuristic algorithms in order to reflect the negotiations better. The methodology of this algorithm was created on the base of game theory (Deng *et al.*, 2014; Hao *et al.*, 2014; Houser & McCabe, 2014; Shoham & Brown 2009; Suh & Park, 2010; Yu *et al.*, 2013; Pooyandeh & Marceau, 2014; Yuan & Ma, 2012; Marey *et al.*, 2014; Wilken *et al.*, 2013; Annabi *et al.*, 2012; Zavadskas *et al.*, 2012), on heuristic theory (Zhang *et al.*, 2014; Azar 2014; Wang *et al.*, 2011; Segundo *et al.*, 2012; Lova *et al.*, 2000; Mandow & Cruz, 2003; Wibowo & Deng, 2013), on graph theory (Arsene *et al.*, 2012; Pancercz & Lewicki, 2014; Yu & Xu, 2012; Xu *et al.*, 2013; Darvish *et al.*, 2009) and on multi-criteria decision analysis (Zavadskas *et al.*, 2014; Ginevičius *et al.*, 2014; Nassiri-Mofakham *et al.*, 2009; Wibowo & Deng, 2013; Lourenzutti & Krohling, 2014).

Each issue of negotiations will be considered only once, without returning to it. Heuristic algorithm will “run” through the negotiator’s strategies-winnings, which gives the greatest benefit. For this purpose, Hurwitz rule will be used (Hurwitz, Wald, Werner and other). The sequence of negotiating questions will start with the most important ones so that further negotiating will not run in vain. For example, as if in the last question, you will know that the other party cannot meet the basic criterion, so it means that negotiating costs incurred up to that point were in vain.

This optimisation task is complex, as the previous individual winnings from the earlier questions do not provide the most useful total winnings from the total questions of negotiations. This means that it is necessary to look for the best value of the aggregate winnings of negotiations in order to solve the task of the global optimisation. For example: if three negotiating issues are solved in negotiations, then for every issue we have an alternative choice. Although the winnings from the first two items by each question have not been most useful, their selection led to the best alternatives from winnings on the third question, which gave the maximum possible benefit for the whole negotiation process in the final.

After defining the priority list of negotiating questions, it must be noted that each of them is related to a set of potential negotiating partners. A set of the negotiator’s alternatives is finite and for each question has t alternatives. Let us take note the alternatives of i -th question $b_{i,j}, j = 1, 2, 3, \dots, t_i$. Then a set of all alternatives of i -th question will be marked as $w_i = \{b_{i,1}, b_{i,2}, \dots, b_{i,t_i}\}$, and $w_1 \times w_2 \times w_3 \dots w_n$ is the set of all possible scenarios of negotiations, where for each question one possible alternative is selected, n is the number of negotiating questions.

Checking b_0 as the start of negotiations, we can represent the whole negotiation process with the help of a graph-tree (Figure 1), where the arc of the graph $H_{i,b_{i,j}}$ denotes the winnings which we got after choosing j -th alternative for resolving i -th question.

$$\max_{k \in w_1 \times w_2 \times w_3 \dots w_n} \left(\sum_{i=1}^n H_{i,b_{i,j}} \right), j = 1, \dots, |w_i| \quad (1)$$

where:

- H - negotiations winnings by Hurwitz rule;
- n - the number of negotiation issues (the top marks the start and the end of negotiations).

The top b_0 marks the start of negotiations, the top $b_{i,j}$ represents i -th question of j -th alternative. The arc of the graph $H_{i,b_{i,j}}$ denotes the winnings that we have after selecting j -th alternative for resolving i -th question $j \in w_1 \times w_2 \times w_3 \dots w_n$.

Hurwitz formula is an example which we will use in order to find the best winnings by the negotiator on the negotiating question under uncertainty:

$$H_{u,w} = \max_u [\gamma \min_z a_{uz} + (1 - \gamma) \max_z a_{uz}] \quad (2)$$

$$H_u = \min_u [\gamma \max_z a_{uz} + (1 - \gamma) \min_z a_{uz}] \quad (3)$$

where:

- a_{uz} - the negotiator's winnings which he may get if he has done a move u in case the opponent will make a move z ;
- H - winnings of the negotiator's question by Hurwitz rule;
- γ - hope parameter.

A set of the negotiator's moves is finite and consists of s moves, which are numbered: $u = 1, 2, 3, \dots, s$.

We will accept the assumption that a set of possible moves of the opponent is complete, consisting of k moves. The number of the moves $z = 1, 2, 3, \dots, k$.

γ - the coefficient which ranges from 0 to 1 in the formula, we see that if a $\gamma = 1$, then Hurwitz criteria coincide with Wald's pessimistic criterion. If $\gamma = 0$, we obtain an optimistic solution which allows us to get the maximum winnings. The size of coefficient γ depends on the type of decision the negotiator will choose - optimistic or pessimistic. Perhaps the most acceptable coefficient is $\gamma = 0.5$ because it is the medium between pessimistic and optimistic solutions.

This game is possible to be written down with the help of winnings matrix and it is called gambling matrix. The form of zero-sum game is:

$$\Gamma = \{S_1, S_1; A\} \quad (4)$$

In solving the negotiating objectives, a set of the first negotiator's strategies (pure strategies) exists: $S_1 = \{S_{11}, S_{12}, \dots, S_{1s}\}$.

A set of the second negotiator's pure strategies is: $S_2 = \{S_{21}, S_{22}, \dots, S_{2k}\}$. S_1 ir S_2 are finite and known. The winnings function is $A = \|a_{uz}\|_{s \times k}$. A set of moves of negotiators is finite and consists of the moves which are: $u = 1, 2, 3, \dots, s$. We will accept the assumption that a set of possible moves of the opponent is complete, consisting of k moves. The moves are: $z = 1, 2, 3, \dots, k$.

Game matrix is used to find the most advantageous strategy for a negotiating question. Every finite gambling has a decision in the field of pure or mixed strategies, and the net value corresponds with the inequality: $\alpha \leq v \leq \beta$. If $\alpha = v = \beta$, this solution with clear strategies is a saddle point (only one optimal strategy for each player).

Number α is called the lowest slot value, β - the biggest slot value, v is called the value of the net playing or playing price.

The adaptation of game theory methods to specific tasks of negotiations needs to have indicators of efficiency, which can express the ratio of the optimal value, and to be independent from the type of matrix. We will use the method of simple adding weighting (SAW) exponential expression by applying different exponents in the cases of the best minimum criteria values and the maximum values, when normalized values are limited in the range [0, 1]:

$$a_{uz} = (\min_u c_{uz} / c_{uz})^3, \text{ if } \min_u c_{uz} \text{ positive} \tag{5}$$

$$a_{uz} = (\max_u c_{uz} / c_{uz})^2, \text{ if } \max_u c_{uz} \text{ positive} \tag{6}$$

We will use the latter formula for the normalization of the parameters of negotiation questions in order to facilitate the processing of negotiating results and to get comparative values.

It is necessary to determine weights of indicators characterising the negotiation questions after getting the original data on the indicators relevance of negotiating questions. These weights will show how many times one or another negotiating point usefulness rate is higher (lower) than another indicator's usefulness. Each of these values can be determined in such a way:

- the most important indicator of the negotiating question is selected - a_{ger} ;
- for the best value of the analysed indicator 1 score of value significance is given: ($a_{ger} = 1$);
- it is determined what percentage (q_v) of the remaining indicators' values (b_v) is lower than the best values ($a_{ger} = 1$);
- for the values of indicators the relative values ($a_v = 1 - q_v/100$) are given;
- the relative values of all indicators (q_v) are converted in such a way that their total amount would be equal to 1: $\sum_{v=1}^m q_v = 1; v = 1, 2, \dots, m$.

The negotiation process can be represented by the graph (Figure 1). The top b_0 marks the start of the negotiations, the top $b_{i,j}$ represents i -th questions of the j -th alternative,

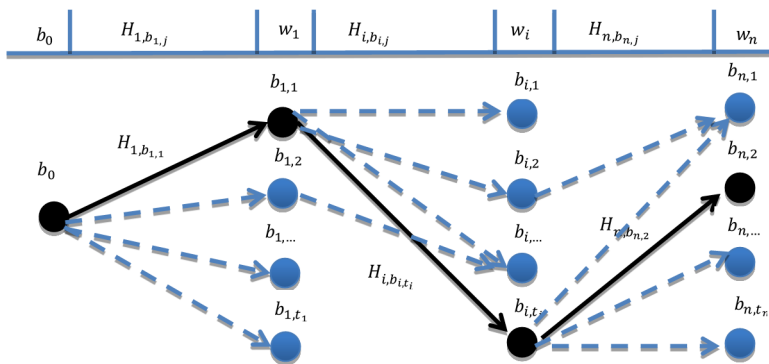


Figure 1. The graph of negotiation

Source: own elaboration.

and the arc of the graph $H_{i,b_i,j}$ denotes the winnings which we got after choosing j -th alternative resolving i -th question. Below there is a global optimisation task with a fixed number of negotiation questions which were envisaged before the negotiation.

We will use the developed negotiation algorithm for the strategy formulation purpose in international business negotiations, specifically in electronic business negotiations, for international business negotiations in order to support the negotiation context, for the modelling and simulation of cross-cultural business negotiations. This model of negotiation strategy will be applied in the next chapter in order to adapt them for solving complex negotiating questions and problems. We will determine whether the developed algorithm is effective as a stand-alone business negotiation engine, and whether it is appropriate for supporting international negotiations.

LITERATURE REVIEW

Restrictions on the Application of Game Theory

Negotiation is based not only on rationality, but also on other factors, such as emotions, moral understanding, avoidance of uncertainty, time orientation awareness (long or short), and others. Game theory has been very successful in developing a deeper understanding of how decisions of rational players are carried out in the circumstances of interaction with another party. One of the major critics of game theory is that players who behave irrationally might benefit more, thus the rationality itself directly hampers game theory (Hao *et al.*, 2014; De Bruin, 2009; Kelly, 2003).

Game theory is based on the assumption of rationality, but there is a need for further experimental evidence to support the assumption that individuals choose to perform important strategies and complex decisions under an element of uncertainty driven by rationality (Pooyandeh & Marceau, 2014; De Bruin, 2009; Kelly, 2003).

Rationality can be defined as a categorical behaviour which originates entirely from the reason (Kelly, 2003). Since individuals have the ability to find the reason, rationality dictates behaviour with which everybody can agree and all individuals are guided by their ability to find the reason and therefore to agree on uniform behaviour (Houser & McCabe, 2014; De Bruin, 2009). Rational players follow universal rules which are guided by rationality. If a player does not select a specific strategy, then it is referred to as irrationality. However, sometimes it is rational to behave irrationally, consequently, it is important to define the concept of rationality. The importance of this concept is far more than semantics because the success of game theory and the negotiations analysed depend on it. This may mean different things in different contexts for different people, however, this remains the basis of game theory and negotiations.

Another important element of game theory, which is open to criticism, is uncertainty. The choice of strategy is not necessarily rational. Choosing a strategy is often determined by experience or culture, but not rationality. Rationality is significantly related to norms, the understanding of rationality itself arises from the development of an individual, culture, traditions (Marey *et al.*, 2014; Frederick, 2010). Uncertainty is particularly harmful for the equilibrium of Nash mixed strategy because if one player hopes that the other party will behave in one way, so he will not have a reason to do otherwise. It is believed that if the players have the same information, then they must necessarily have similar beliefs,

but rational players not always provide identical proposals or reach similar agreements, even though the same information was available.

Rationality means maximally effective decisions and behaviour which is based on the available information. If the negotiators have a different perception of rationality, then the support of negotiations cannot be effective, unless it is desired to know culture, traditions, experience and information on another party to negotiations.

Inconsistency, which is promoted by irrationality, is the third criticism of game theory. Rationality relates to the environmental control, systematic understanding and methodical sequence of actions (Basel & Bruhl, 2011). Logical thinking and behaviour are also based on rationality. Rational beliefs are those which are based on consistency, and rational arguments are those that are based on logical rules. In the games of game theory it is proposed to keep the cases of inconsistency as occasional (Kelly, 2003). For this purpose, errors are applicable in games.

These restrictions point out that the basic weakness of game theory is rationality, as the theory itself deals only with rational games. It is not clear how to deal with them in conditions when the basis of game theory, namely – the concept of rationality and irrationality, is not clear. In reality, people are not always rational (for example, decision-making may be influenced by emotions of the individual), and rationality itself can be interpreted in different ways, as the rules of an individual's rationality can be influenced by prior experience, culture of the region (Wilken *et al.*, 2013), moral awareness, and other factors.

Potential of Adaptation of Heuristic Algorithms for Business Negotiations

In examining the development of negotiation strategies based on the assessment of bargaining power, it can be observed that the application of strategic principles may vary for each issue of negotiations and their selection is taking place in the learning process, so for the specifics of the negotiations it would be appropriate to use heuristic algorithms which hereinafter we will examine. The aim to solve complex optimisation problems (Minimax) encouraged the emergence of heuristic optimisation algorithms (Katkus, 2006; Segundo *et al.*, 2012). For solving these tasks many heuristic algorithms have been created, which calculate how to get the optimum possible result over a given period; heuristic algorithms are used in optimisation tasks and they help to achieve high quality within the desired calculation time (Berth *et al.*, 2000; Mandow & Cruz, 2003; Tamošiūnas, 2011; Wibowo & Deng, 2013; Azar, 2014). Negotiation strategies are based on gradual assessment of bargaining power of the other negotiating party. Thus, on each issue we can use nonetheless different tactics. So heuristic algorithms can help to represent the negotiation process between several negotiating parties. Developing fast acting heuristic algorithms is based on the processes that are taking place in the environment surrounding us (Segundo *et al.*, 2012; Katkus, 2006). Heuristic search methods became very important scientifically when the areas emerged where the standard combinatorial algorithms became unsuitable for the large data sample (Berth *et al.*, 2000; Mandow & Cruz, 2003; Tamošiūnas, 2011; Wibowo & Deng, 2013; Azar, 2014). Recently, optimisation management tasks apply heuristic optimisation techniques, relying on a variety of solution search paradigms which are often developed by analogy with nature, applying artificial intelligence techniques and so on (Bergroth, 2006; Felinksas, 2007). Realisation of various search paradigms for an optimal

solution and several paradigm combination for solving separate classes of tasks is an urgent practical problem which recently gets much attention in the scientific literature (Berth *et al.*, 2000; Mandow & Cruz, 2003; Felinksas, 2007; Wibowo & Deng, 2013; Azar, 2014). Such algorithms are used in graph theory. Graph theory was applied for a narrow purpose - to analyse the routes. The development of graph theory has gained a name of the universal approach and spread to various areas of activities and has been used in a wide variety of tasks (both by subject and according to their nature) (Bivainis, 2011). The first graph theory task was investigated in 1736. It was the task concerning Königsberg (Kongsberg) bridges. L. Euler not only successfully solved that task, but also formulated the necessary and sufficient conditions after the fulfilment of which a graph has a specific route, which is now called the Euler cycle (chain) (Plukas *et al.*, 2004). However, in the period of approximately 100 years, the solution of this task was only one result of graph theory. Later, in the mid -19th century, an electrical engineer Kirchgof developed theory of trees and applied it to examine the electrical chains.

Travelling salesman problem is the task of the classic graph theory arising in a number of management cases of organising various trips (Tamošiūnas, 2011). The task of Travelling salesman was formulated as follows: having some amount of cities and prices of travelling from one city to another, it is necessary to find the cheapest route so that after visiting each city once, the route will end in the original city. Graph theory can reformulate the task – finding the minimum weight of the Hamilton cycle in a graph with weights (Bergroth, 2006; Felinksas, 2007; Tamošiūnas, 2011). The route (path) bypassing all tops of a graph only once is called the Hamilton route (Plukas *et al.*, 2004). If the start and the end tops of the route are matched, this path is called Hamilton cycle; otherwise - Hamilton circuit. The graph having Hamilton route is called Hamilton graph (Plukas *et al.*, 2004).

The application of heuristic algorithms in the negotiation process is appropriate because of its nature – the knowledge of negotiating power is taking part in the negotiation process, thereby reducing the uncertainty situations that are trying to solve previously considered rules for calculating optimal strategies. When examining the scientific literature, there is a noticeable lack of attention on the application of heuristic algorithms in business negotiations.

In the next part of the article we will try to combine the game theory approach with heuristic algorithms in order to create an algorithm to reflect the specifics of the negotiations better. The developed mathematical model can be successfully used to support strategic decisions of international negotiations.

DISCUSSION AND THEORY DEVELOPMENT

Application of the Model to Support e-Business Negotiations

The intensive use of fast Internet technology and intellectual development in recent years has stirred up the interest of scientists in searching the optimal negotiation strategies, conflict prevention, solving various issues related to negotiations, the introduction of electronic innovations. Decision support systems are widely used in order to facilitate the decisions which must be based on some information or decision reasoning in the management of various processes. Decision Support Systems Engineering is the most common branch of Engineering Sciences that investigates how to create artificial systems of any

nature or kind. Electronic negotiation systems can be an effective means in solving complex problems and managing large amounts of information. These negotiations systems can be specialised and targeted to facilitate the specific processes or to be universal for all processes. A decision support system can rely on a variety of sources which must allow the users to transform enormous quantities of raw data for analysis, problem-solving, decision-making which is required for information reports. The negotiation process becomes more complicated when there is a whole set of problems considered, thus the proposed model of optimal negotiating strategies will be used for decision-making and searching for optimal strategies. Recently, e-business has changed the traditional business methods as innovative measures make business processes more efficient in cyberspace. In e-business people can easily publish information, negotiate with opponents, and look for the necessary tools. The tools of negotiations are very important in e-business, but it is quite closed and static and it does not reflect the reality of the business dynamics adequately. In a rapidly changing environment, e-business tools of negotiations can be unsuccessful for a variety of environmental changes and their unpredictability. The tools of e-business should be more flexible and more adaptable to the changing environment in future.

In order to verify the ability of the developed algorithm to formulate the negotiation strategy model to support business negotiations, a simulation of a few negotiating business subjects will be done.

We will explore 3 questions of negotiations with 3 potential partners. Each potential party to negotiations will give 4 alternative proposals. The experts of the negotiating team are employed for the assessment of the relevance of the indicators of each negotiation question.

Table 1 presents the normalised gaming matrix according to indicator weights. Also, there a compatibility of experts' opinions - coefficients of concordance are determined, which are satisfactory. In the next step a normalized decision matrix is presented, in which the weights of indicators are applied.

Table 1. Normalized as that for procurement of gaming matrix

Gaming matrix of 1 negotiating question of 1 alternative			Gaming matrix of 2 negotiating questions of 2 alternatives			Gaming matrix of 3 negotiating questions of 3 alternatives		
W1H1	A1	A2	W1H2	A1	A2	W1H3	A1	A2
R1	0.777	0.355	R1	0.816	0.585	R1	0.464	0.804
R2	0.299	0.359	R2	0.781	0.717	R2	0.389	0.843
Gaming matrix of 1 negotiating questions of 2 alternatives			Gaming matrix of 2 negotiating questions of 2 alternatives			Gaming matrix of 3 negotiating questions of 2 alternatives		
W2H1	A1	A2	W2H2	A1	A2	W2H3	A1	A2
R1	0.794	0.383	R1	0.873	0.854	R1	0.638	0.738
R2	0.455	0.433	R2	0.836	0.730	R2	0.558	0.718
Gaming matrix of 1 negotiating question of 3 alternatives			Gaming matrix of 2 negotiating questions of 3 alternatives			Gaming matrix of 3 negotiating questions of 3 alternatives		
W3H1	A1	A2	W3H2	A1	A2	W3H3	A1	A2
R1	0.832	0.611	R1	0.905	0.927	R1	0.517	0.748
R2	0.667	0.578	R2	0.888	0.928	R2	0.529	0.755

Notes: R1, R2 are offer values of negotiation question; A1, A2 are offer alternatives of negotiation question; W shows alternative number of gaming matrix negotiation questions; H shows question number of gaming matrix negotiation.

Source: own calculations.

Table 2. Results of gaming according to different optimisation rules

Negotiation winnings results using Hurwitz optimisation rule					Negotiation winnings results using Bernoulli-Laplace optimisation rule				
Hurwitz	H1	H2	H3		Bernoulli-Laplace	H1	H2	H3	
W1	0.538	0.700	0.616		W1	0.447	0.725	0.625	
W2	0.589	0.802	0.648		W2	0.516	0.823	0.663	
W3	0.705	0.908	0.636	Sum	W3	0.672	0.912	0.637	Sum
MAX	0.705	0.908	0.648	2.261	MAX	0.672	0.912	0.663	2.247
Negotiation winnings results using Wald optimisation rule					Negotiation winnings results using Bayes-Laplace optimisation rule				
Wald	H1	H2	H3		Bayes-Laplace	H1	H2	H3	
W1	0.299	0.585	0.389		W1	0.447	0.725	0.625	
W2	0.383	0.730	0.558		W2	0.516	0.823	0.663	
W3	0.578	0.888	0.517	Sum	W3	0.672	0.912	0.637	Sum
MAX	0.578	0.888	0.558	2.023	MAX	0.672	0.912	0.663	2.247
Negotiation winnings results using Savage and Niehaus optimisation rule					Negotiation winnings results using Hodges and Lehmann optimisation rule				
Savage and Niehaus	H1	H2	H3		Hodges and Lehmann	H1	H2	H3	
W1	0.777	0.816	0.843		W1	0.373	0.655	0.507	
W2	0.794	0.873	0.738		W2	0.450	0.777	0.610	
W3	0.832	0.928	0.755	Sum	W3	0.625	0.900	0.577	Sum
MAX	0.832	0.928	0.843	2.602	MAX	0.625	0.900	0.610	2.135

Notes: H1, H2, H3 are negotiations questions; W1, W2, W3 are negotiation winnings.

Source: own calculations.

Table 3. Negotiation winnings scoreboard by optimisation rules

Rules of optimisation	The normalised expression data			
	Winnings of negotiation questions			Totals of all questions winnings
	H1	H2	H3	
Hurwitz	W3	W3	W2	2.261
	0.705	0.908	0.648	
Wald	W3	W3	W2	2.023
	0.578	0.888	0.558	
Savage and Niehaus	W3	W3	W1	2.602
	0.832	0.928	0.843	
Bernoulli-Laplace	W3	W3	W2	2.247
	0.672	0.912	0.663	
Bayes-Laplace	W3	W3	W2	2.247
	0.672	0.912	0.663	
Hodges and Lehmann	W3	W3	W2	2.135
	0.625	0.900	0.610	

Notes: H1, H2, H3 are negotiations questions; W1, W2, W3 are negotiation winnings.

Source: own calculations.

In Table 3 and Figure 2 summary results of the negotiations winnings are presented by optimisation rules. It is shown which negotiator's offer was with the highest winning under different optimisation rules, as well as the total winnings of all the questions.

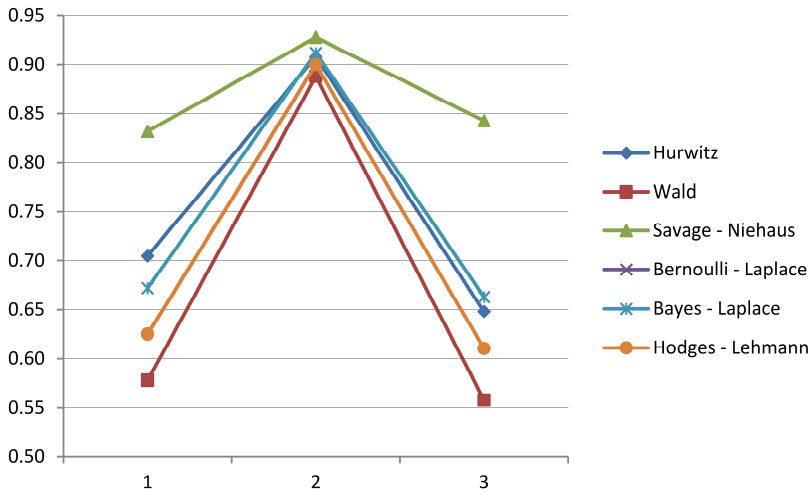


Figure 2. Negotiation winnings distribution under different negotiation issues, applying different optimisation rules

Note: vertical axis shows negotiation winnings, horizontal shows negotiation question number. Source: own calculations.

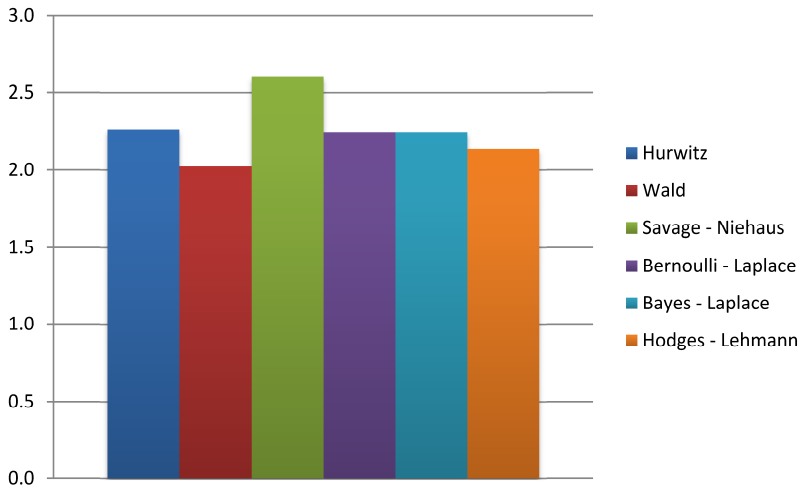


Figure 3. The aggregated results of all negotiation questions, applying different optimisation rules

Note: vertical axis shows negotiation winnings, horizontal shows negotiation question number. Source: own calculations.

The results chart in Figure 3 shows that optimistic – the maximum winnings are provided by Savage and Niehaus optimisation rule, the smallest winnings are provided by

Wald rule. Hurwitz, Bernoulli-Laplace and Bayes-Laplace rules showed very similar results, and Hodges and Lehman rules have slightly larger winnings than the minimum winnings demonstrated by Wald rule. The obtained results confirmed the works of other researchers, stressing the importance of game theory for business negotiations support (Zavadskas *et al.*, 2012; Hao *et al.*, 2014; Houser & McCabe, 2014; Deng *et al.*, 2014; Shoham & Brown, 2009; Suh & Park, 2010; Yu *et al.*, 2013; Pooyandeh & Marceau, 2014; Yuan & Ma, 2012; Marey *et al.*, 2014; Wilken *et al.*, 2013; Annabi *et al.*, 2012).

Recently, for the optimisation of management tasks heuristic optimisation technique is applied, relying on a variety of solution search paradigms which are often developed by analogy with nature, applying artificial intelligence techniques, and so on. Heuristic algorithms in negotiations are purposeful due to the nature of negotiations - knowledge of negotiating power is going in the negotiation process itself, thereby reducing the uncertainty that hampers negotiating situations by using the rules for calculating the optimal strategy. To deal with these tasks a number of heuristic algorithms are developed, which calculate the optimum possible to get a result over time. Heuristic algorithms are used for optimisation problems, and they help to achieve high quality. Negotiation is based on the gradual knowledge of negotiating power of the other party to negotiations, so with every issue you can use other tactics. Therefore, heuristic algorithms can help to manage the negotiation process effectively. The selection of principles and rules must be carried out by specialists with high qualifications and experience, consultants, negotiators in the fields concerned, in order to determine which option is the best, taking into account the specifics of each task, goals and conditions.

CONCLUSIONS

The research results showed that the created algorithm helped to identify the optimal way of the negotiation strategy. In order to determine the best option it is needed to assess specifics, goals and context of each individual task. The author is proposing the following cases of the algorithm use: in the case of multiple negotiations and making a lot of solutions it is advisable to apply Bayes (Bayes-Laplace) and Hurwitz principles. If negotiations are one-off, it is better to apply the Mini max and Savage-Niehaus principles. If in certain circumstances even minimal risk is unacceptable, solutions should be based on the principle of Wald. If the partial risk is possible, thus defining of the optimal strategy is subject to Savage-Niehaus rule. The examination of the application of negotiation strategies revealed that the application of strategic principles can fluctuate in every question of negotiations. To make a selection of negotiation principles and rules only negotiators with high qualifications and experience in this field can do this.

The investigation carried out demonstrated that the mathematical algorithm developed by the author for the strategy formulation of international business negotiations can be used in electronic business negotiations, both as a standalone tool, and partially requiring intervention by the negotiator. Moreover, this algorithm can be used to support negotiations through various databases. In this article we analysed the reduction of uncertainty in the formation of negotiation strategy through data-bases describing the context of the negotiations. The research results showed that the proposed negotiation algorithm can be also used for the analysis and support of negotiation strategies with various parameters.

It is estimated that game theory cannot fully define the decision-making process in some circumstances, but it is a great tool for making the right strategic decisions. Game theory does not give ethical or moral guidance, but explores what does encourage selfish interests of people. The basic weak point of game theory is its rationality, as the theory itself deals solely with rational games. And how to examine them when the basis of game theory is not entirely clear – is this the concept of rationality and reasons which encourages irrationality? In reality, people are not always rational (as decision-making can be influenced by emotions of the individual), and rationality itself can be interpreted in different ways because the rules of the individual rationality can be influenced by prior experience, culture of the region, moral awareness, and other factors.

In further investigation opportunities for the developed algorithm could be verified in the following aspects:

- *As a negotiations support tool.* The main purpose of this model use - support of the international business negotiation. As these days businesses lack propensity to take strategic decisions based on the evaluations of negotiations bargaining power, assessing the negotiating partners, competitors and their resources, this model, unlike currently existing tools, assesses the influence on these entities by a variety of factors. What encourages to use this model is the simplicity of managing this instrument and good results of support for negotiations.
- *As an information uncertainty reduction tool.* The main negative feature of negotiation support measures is uncertainty of information. This model has a possibility to assess the uncertainty by using both databases, as well as expert evaluations. Databases can include both economic indicators such as tender, creditworthiness of the entities, operating history, as well as non-economic indicators, such as cultural dimensions, which are important for international business negotiations. In making decisions it is important to understand participants in the negotiations correctly because in represented different cultures even the understanding of rationality can vary.
- *As an autonomous negotiation process engine.* Presenting businesses in cyberspace is increasingly gaining in popularity in distance trade, and thus in distance negotiations. After making appropriate restrictions, this negotiation model could function as an autonomous negotiation process engine that can itself provide solutions, options and alternatives. The negotiator should only assign the model data bases which should help to assess the participants in the negotiations and their proposals.
- *As a tool for the management of large amounts of information.* During the international business negotiations, unlike a single country-wide negotiation, the number of negotiations, competitors or partners, increases by a dozen, a few dozen or a few hundred times. Such processing of data flow physically, without computer assistance, is practically impossible. Therefore, this model would be appropriate to be used for simplicity and speed processing of large information flow.
- *As a tool for improving the conditions for communication.* Negotiations are often lost even before the start because of language barriers or different understanding of matters or values. Therefore, this model is designed to help identify and understand common points of reference of the international business negotiation subjects. For this task various cultural brokers would be deployed who assist to manage this model with partial intervention.

REFERENCES

- Annabi, A., Breton, M., & François, P. (2012). Game theoretic analysis of negotiations under bankruptcy. *European Journal of Operational Research*, 221(3), 603-613. doi: 10.1016/j.ejor.2012.04.002
- Arsene, C. T. C., Gabrys, B., & Al-Dabass, D. (2012). Decision support system for water distribution systems based on neural networks and graphs theory for leakage detection. *Expert Systems with Applications*, 39(18), 13214-13224. doi: 10.1016/j.eswa.2012.05.080
- Aurangzeb, M., & Lewis, F. L. (2014). Internal structure of coalitions in competitive and altruistic graphical coalitional games. *Automatica*, 50(2), 335-348. doi: 10.1016/j.automatica.2013.11.002
- Azar, O. (2014). The default heuristic in strategic decision making: When is it optimal to choose the default without investing in information search?. *Journal of Business Research*, 67(8), 1744-1748. doi: 10.1016/j.jbusres.2014.02.021
- Baarslag, T., Hindriks, K., & Jonker, C. (2014). Effective acceptance conditions in real-time automated negotiation. *Decision Support Systems*, 60(1), 68-77. doi: 10.1016/j.dss.2013.05.021
- Basel, J., & Brühl, R. (2011). Concepts of Rationality in Management Research. *From Un-bounded Rationality to Ecological Rationality* No. 57.
- Bergroth, L. (2006). Duomenų struktūrą poveikis algoritmo efektyvumui ieškant dviejų sekų bendra ilgiausia posėki. *Vadyba, mokslo tiriamieji darbai*, 29, Vakarų Lietuvos verslo kolegija. Klaipėda.
- Bivainis, J. (2011). *Vadyba studentams: mokomoji knyga*. Vilniaus Gedimino technikos universitetas. Vilnius: Technika.
- Chuah, S., Hoffmann, R., & Larner, J. (2014). Chinese values and negotiation behaviour: A bargaining experiment. *International Business Review*, 23(6), 1203-1211. doi: 10.1016/j.ibusrev.2014.05.002
- Darvish, M., Yasaei, M., & Saeedi, A. (2009). Application of the graph theory and matrix methods to contractor ranking. *International Journal of Project Management*, 27(6), 610-619. doi: 10.1016/j.ijproman.2008.10.004
- De Bruin, B. (2009). Overmathematisation in game theory: pitting the Nash Equilibrium Refinement Programme against the Epistemic Programme. *Studies in History and Philosophy of Science*, 40(3), 290-300. doi: 10.1016/j.shpsa.2009.06.005
- Deng, X., Zheng, X., Su, X., Chan, F. T. S., & Hu, Y. (2014). An evidential game theory framework in multi-criteria decision making process. *Applied Mathematics and Computation*, 244(1), 783-793. doi: 10.1016/j.amc.2014.07.065
- Felinksas, G. (2007). *Euristinių metodų tyrimas ir taikymas ribotų išteklių tvarkaraščiams optimizuoti*. Daktaro disertacija. Kaunas: VDU.
- Frederick, D. (2010). Two Concepts of Rationality. *Libertarian Papers*, 2(5), 1-21.
- Ginevičius, R., Suhajda, K., Petraškevičius, V., & Šimkūnaitė, J. (2014). Lithuanian Experience of Quantitative Evaluation of Socioeconomic Systems Position by Multicriteria Methods. *Procedia - Social and Behavioral Sciences*, 110, 952-960. doi: 10.1016/j.sbspro.2013.12.941
- Hao, J., Song, S., Leung, H., & Ming, Z. (2014). An efficient and robust negotiating strategy in bilateral negotiations over multiple items. *Engineering Applications of Artificial Intelligence*, 34, 45-57. doi: 10.1016/j.engappai.2014.05.008

- Houser, D., & McCabe, K. (2014). Experimental Economics and Experimental Game Theory. In Glimcher, P. W. & Fehr, E. (Eds.), *Neuroeconomics* (pp.19-34). 2nd edition, San Diego: Academic Press.
- Katkus, K. (2006). *Hibridinis genetinis algoritmas komivojažeriaus uždaviniui*. Kaunas: Kauno technologijos universitetas.
- Kozina, A. (2012). Multipart Negotiations – Research Problems Formulation. In Nalepka, A. & Ujwary-Gil, A. (Eds.), *Business and Non-Profit Organizations Facing Increased Competition and Growing Customers' Demands* (pp.45-56). Nowy Sącz: Wyższa Szkoła Biznesu – National-Louis University.
- Kozina, A. (2014). Managerial Roles and Functions in Negotiation Process. *Business, Management and Education*, 12(1), 94-108.
- Kelly, A. (2003). *Decision Making Using Game Theory. An Introduction for Managers*. Cambridge University Press.
- Lin, R., Gal, U., Kraus, S., & Mazliah, Y. (2014). Training with automated agents improves people's behavior in negotiation and coordination tasks. *Decision Support Systems*, 60, 1-9. doi: 10.1016/j.dss.2013.05.015
- Lourenzutti, R., & Krohling, R. A. (2014). The Hellinger distance in Multicriteria Decision Making: An illustration to the TOPSIS and TODIM methods. *Expert Systems with Applications*, 41(9), 4414-4421. doi: 10.1016/j.eswa.2014.01.015
- Lova, A., Maroto, C., & Tormos, P. (2000). A multicriteria heuristic method to improve resource allocation in multiproject scheduling. *European Journal of Operational Research*, 127(2), 408-424. doi: 10.1016/S0377-22179900490-7
- Madow, L., & Pérez de la Cruz, J.L. (2003). Multicriteria heuristic search. *European Journal of Operational Research*, 150(2), 253-280, doi: 10.1016/S0377-22170200517-9
- Marey, O., Bentahar, J., Asl, E. K., Mbarki, M., & Dssouli, R. (2014). Agents' Uncertainty in Argumentation-based Negotiation: Classification and Implementation. *Procedia Computer Science*, 32, 61-68. doi: 10.1016/j.procs.2014.05.398
- Marey, O., Bentahar, J., Dssouli, R., & Mbarki, M. (2014). Measuring and analyzing agents' uncertainty in argumentation-based negotiation dialogue games. *Expert Systems with Applications*, 41(2), 306-320. doi: 10.1016/j.eswa.2013.07.005
- Mockus, J. (2010). On simulation of optimal strategies and Nash equilibrium in the financial market context. *Journal of Global Optimization*, 48(1), 129-143.
- Nassiri-Mofakham, F., Nematbakhsh, M. A., Ghasem-Aghaee, N., & Baraani-Dastjerdi, A. (2009). A heuristic personality-based bilateral multi-issue bargaining model in electronic commerce. *International Journal of Human-Computer Studies*, 67(1), 1-35.
- Oderanti, F. O., Li, F., & De Wilde, P. (2012). Application of strategic fuzzy games to wage increase negotiation and decision problems. *Expert Systems with Applications*, 39(12), 11103-11114. doi: 10.1016/j.eswa.2012.03.060
- Pancerz, K., & Lewicki, A. (2014). Encoding symbolic features in simple decision systems over ontological graphs for PSO and neural network based classifiers. *Neurocomputing*, 144, 338-345. doi: 10.1016/j.neucom.2014.04.038
- Plukas, K., Mačikėnas, E., Jarašiūnienė, B., & Mikuckienė, I. (2004). *Taikomoji diskrečioji matematika*. Kaunas: Technologija.
- Pooyandeh, M., & Marceau, D. J. (2014). Incorporating Bayesian learning in agent-based simulation of stakeholders' negotiation. *Computers, Environment and Urban Systems*, 48, 73-85. doi: 10.1016/j.compenvurbsys.2014.07.003

- Rufo, M.J., Martín, J., & Pérez, C.J. (2014). Adversarial life testing: A Bayesian negotiation model. *Reliability Engineering & System Safety*, 131, 118-125. doi: 10.1016/j.res.2014.06.007
- Segundo, G. A. S., Krohling, R. A., & Cosme, R. C. (2012). A differential evolution approach for solving constrained min–max optimization problems. *Expert Systems with Applications*, 39(18), 13440-13450. doi: 10.1016/j.eswa.2012.05.059
- Shoham, Y., & Brown, K. L. (2009). *Multiagent Systems, Algorithmic, Game Theoretic, and Logical Foundations*. Cambridge: University Press.
- Suh, S., & Park, N. (2010). The Charter Fixing Negotiation Procedure with Asymmetric Impatience in a Game Theory Framework: Case Studies in Coal and Ore Transactions. *The Asian Journal of Shipping and Logistics*, 26(2), 247-261. doi: 10.1016/S2092-5212(10)80004-5
- Tamošiūnas, L. (2011). *Euristių paieškos algoritimų tyrimas ir taikymas atviro kodo geografinėse informacinėse sistemose*. Magistro darbas. Kauno Technologijos Universitetas.
- Wang, P., Reinelt, G., Gao, P., & Tan, Y. (2011). A model, a heuristic and a decision support system to solve the scheduling problem of an earth observing satellite constellation. *Computers & Industrial Engineering*, 61(2), 322-335. doi: 10.1016/j.cie.2011.02.015
- Wibowo, S., & Deng, H. (2013). Consensus-based decision support for multicriteria group decision making. *Computers & Industrial Engineering*, 66(4), 625-633. doi: 10.1016/j.cie.2013.09.015
- Wilken, R., Jacob, F., & Prime, N. (2013). The ambiguous role of cultural moderators in intercultural business negotiations. *International Business Review*, 22(4), 736-753. doi: 10.1016/j.ibusrev.2012.12.001
- Xu, H., Kilgour, D. M., Hipel, K. W., & McBean, E. A. (2013). Theory and application of conflict resolution with hybrid preference in colored graphs. *Applied Mathematical Modelling*, 37(3), 989-1003. doi: 10.1016/j.apm.2012.03.009
- Yu, F., Kaihara, T., & Fujii, N. (2013). Coalition Formation Based Multi-item Multi-attribute Negotiation of Supply Chain Networks. *Procedia CIRP*, 7, 85-90. doi: 10.1016/j.procir.2013.05.015
- Yu, X., & Xu, Z. (2012). Graph-based multi-agent decision making. *International Journal of Approximate Reasoning*, 53(4), 502-512. doi: 10.1016/j.ijar.2011.12.002
- Yuan, H., & Ma, H. (2012). Game Analysis in the Construction Claim Negotiations. *Procedia Engineering*, 28, 586-593. doi: 10.1016/j.proeng.2012.01.773
- Zavadskas, E. A., Kaklauskas, A., Trinkunas, V., Tupenaite, L., Cerkauskas, J., & Kazokaitis, P. (2012). Recommender System to Research Students' Study Efficiency. *Procedia - Social and Behavioral Sciences*, 51, 980-984. doi: 10.1016/j.sbspro.2012.08.273
- Zavadskas, E. K., Antucheviciene, J., Šaparauskas, J., & Turskis, Z. (2013). Multi-criteria Assessment of Facades' Alternatives: Peculiarities of Ranking Methodology. *Procedia Engineering*, 57, 107-112. doi: 10.1016/j.proeng.2013.04.016
- Zhang, K. Z. K., Zhao, S. J., Cheung, C. M. K., & Lee, M. K. O. (2014). Examining the influence of online reviews on consumers' decision-making: A heuristic–systematic model. *Decision Support Systems*, 67, 78-89. doi: 10.1016/j.dss.2014.08.005

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Public Innovation Support Index for Impact Assessment in the European Economic Area

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ABSTRACT

Objective: The object of this research is public innovation support in the European Economic Area and its effectiveness assessment. The main aim is to propose a new model for public innovation support effectiveness assessment, adjusted to contemporary needs and based on practice of public innovation support development.

Research Design & Methods: The methods of comparative, cluster, regression, modelling analysis, multi-criteria evaluation, analogy search, logical abstraction and impact evaluation have been applied for the research presented in this paper.

Findings: The paper conceptualizes a new model for the assessment of public innovation support. It is based on theoretical argumentation and practical verification. Its structure is based on new solutions and quantitative assessment methods.

Implications & Recommendations: The analysis of the proposed model applicability revealed important patterns for the public innovation support impact assessment. Findings suggest that the increase of public innovation support index is a necessary but insufficient condition for the growth of the countries innovation index. The impact of public innovation support occurs only in the long run, as the delay of the effect exists.

Contribution & Value Added: The proposed system of quantitative and qualitative indicators that characterize any public innovation support system (public innovation support index) enables the creation and implementation of measures devoted to the public innovation support impact improvement at EU and national level. The practical application of the suggested model is significant for the effectiveness improvement of public innovation support at EU institutions.

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INTRODUCTION

The current global economic crisis emphasizes the need for efficient and effective use of public funding for the benefit of public interest. Under such circumstances increased pressure is put on public budgets. According to the EU wide studies the impact of the crisis on innovation expenditures seems to be the greatest in low tech manufacturing sectors and in countries classified as “catching up” by the European Innovation Scoreboard (Pro Inno Europe, 2012). As a direct impact of the economic crisis, the innovation gap in the EU risks to be widened again. The need of new approaches for the assessment of public innovation support is caused by:

- limited understanding on how to assess the relevance of public innovation support schemes and their adjustment to the needs of businesses and public interest (EUIFP, 2013; Goel, 2012);
- limited effectiveness of public innovation support (Luke, 2010);
- lack of an indicator systems suitable for the comparative analysis of complex public innovation support systems at national levels and at EU level;
- absence of theoretical background which could justify the creation and development of complex public innovation support systems relevant to the national socio-economic challenges.

By reacting to the all above stated challenges the issues of public innovation support assessment has recently received an increasing attention among scholars and practitioners. However, only with few exceptions, scientific studies have been based on the analysis of particular innovation policies or instruments in limited manner neglecting almost completely the specific policy dilemmas arising from weak and fragmented understanding of support impact.

In developed countries innovation has been the key engine for economic development enabling those countries to reach international competitiveness and high quality of people’s life. Additionally we can observe a trend of shortening the time of diffusion of innovations, which in practice means faster introduction and adaptation of innovative solutions (Kosała & Wach, 2014). In view of the complex and strategic character of innovation processes and their significance for countries, the intervention of the public sector in the innovation development and promotion process is not only possible, but necessary.

In order to ensure qualitative development of public innovation support systems which are relevant to the needs of business, but also match the public interest, it is very important to understand the synergies of multiple public support actions under holistic innovation paradigm and to suggest novel and comprehensive approaches for national innovation support system assessment (Tan, 2004; Melnikas, 2005). New assessment methods of public innovation support is important for the science of management at the national as well as at supranational level. The assessment of public innovation support effectiveness is an important field for the scientific research due to the following reasons:

- it creates a ground for rationalisation of public innovation support policies;
- it justifies appropriateness of public funds allocated for this support;
- it encourages the improvement of public support, its effectiveness, thus reforming current and introducing new support programmes and measures.

Therefore, it is very important to explore and suggest new approaches, methods and instruments for the modern public innovation support assessment. This paper discusses conceptual frameworks for assessment of the impact of public innovation support while applying conventional descriptive methods to explore the changes in innovation in the European Economic Area.

The value added of this paper lies in the following areas:

- with the definition of a new research field in the area of public innovation support effectiveness assessment, it can create ground for a better perception of public support impact;
- common for EU and specific to Lithuania patterns of public innovation support development practice were identified which create new opportunities for the improvement of public support effectiveness;
- the proposed system of quantitative indicators enables the creation and implementation of measures devoted to the public innovation support effectiveness improvement at EU and national level;
- suggested model for the assessment of public innovation support is based on theoretical argumentation and practical verification; its structure is based on new solutions and quantitative assessment methods.

LITERATURE REVIEW

Previous Research of Public Innovation Support Impact Assessment

The emphasis on public innovation support is caused by the widespread conviction that innovation contribute significantly to GDP growth and to solving important socioeconomic challenges. The impact of public innovation support on the development of innovation is not scientifically and practically explored enough. Some scientific research has been made to identify the effects of public innovation support measures nevertheless this research remains fragmented. By referring to the current state of art in supporting innovation by different public actions the main research areas are as follows:

- organisational and institutional forms for public innovation support (Ertmer & Ottenbreit-Leftwich, 2010; EUFP, 2013; Goel, 2012; Luke, 2010; Minogue, 2005; Fung & Wright, 2001; Gavin & Muers, 2002; MacPherson, 2001; Straits, 2002; Sherwood, 2002);
- the role and models of public innovation support in fostering innovation in business (Naštase, 2013; Noor, 2010; Barrett & Hill, 1984; Braczyk, Cooke, & Heidenreich, 1998; Miles, 2004; Earl, 2004; Tan, 2004; Melnikas, 2005);
- public sector as a main developer of innovations. The paradigm of full governmental involvement for the generation and dissemination of innovation (Pacharapha & Ratham, 2012; Rutkauskas & Račinskaja, 2013; Bhatta, 2003; Cainelli, Evangelista, & Savona, 2004);
- provision of innovation support services in line with other public measures. In this case the main scope of the research is to explore key elements for the efficient delivery of public support (Santos Silva, 2013; Sullivan & Marvel, 2011; Gallouj, 2006; Tekes, 2007).

By summarising different scientific suggestions (Antonelli, 2009; Cassiman & Veugelers, 2002; Miravete & Pern, 2000; Beerepoot, 2007; Blake & Hanson, 2005; Blindenbach,

2006) public innovation support can be defined as an activity which is planned, organized, implemented and controlled by public or private institutions under the public interest with the aim to foster innovation in all possible areas. By following this approach government, industry and universities can work in partnership in order to take all benefits of public support measures during the current global economic crisis. Adequate assessment of public innovation support can guarantee further development of the economy in a manner that is relevant to the needs of business, but also matching the public interest.

In recent years, the assessment of impact of public innovation support took a substantial evolution. According to the neoclassical tradition, the discussion on rationales for public intervention is robustly linked to the notion of optimality. According to the neoclassical theory classics (Vargas-Hernandez, 2011; Varghese, 2013; Bator, 1958; Medema, 2004; Mankiw *et al.*, 2002; Mohnen *et al.*, 2004) public sector should intervene to solve those market failures that prevent achieving the optimal development of innovation. As opposed to the neoclassical theories, the notion of optimality is considered to be irrelevant by the systems of innovation approach. It focuses on the evolutionary nature of innovation processes that are path dependent over time and it is not clear which path will be taken (Edquist & Chaminade, 2006). Therefore in systems that never achieve equilibrium, the notion of optimality is irrelevant. Under this paradigm the rationale for public innovation support is based on identification, analysis and elimination of systemic problems (Bastalich, 2010; Boehm & Fredericks, 2010; Camic & Grossm, 2012; Chaminade & Edquist, 2006; Hassink & Dong-Ho, 2005; Lundvall, 2007; Edquist, 2001; Heidenreich, 2004; Juma, 2005; Nelson, 2002). After an in-depth analysis of different theoretical approaches the concept of holistic innovation system was selected as the background to design a new proposition of an assessment model of public innovation support. Table 1 depicts the main methods used for the assessment of public innovation support and the main results from selected recent related studies.

Table 1. Recent studies for the assessment of the public innovation support impact

Year	Authors	Results
2012	Almus	Companies that participated in public R&D schemes increased R&D-investments with an amount corresponding to 4% of their turnover.
2013	Duguet	R&D subsidies add to the private R&D.
2013	Wong	Public subsidies contribute to private funding of R&D. Regression methods suggest that one additional dollar in R&D subsidy would increase private R&D spending by 0.41 USD.
2014	Schibany <i>et al.</i>	Firms with fewer than 10 employees and firms with more than 250 employees exhibit the highest leverage from public innovation support.

Source: own elaboration based on (Almus, 2012; Duguet, 2013; Wong, 2013; Schibany *et al.*, 2014).

Taking into account the holistic innovation system approach and the scientific studies, which were made to explore the impact of public innovation support, further analysis focused on identification and classification of various public support additionality concepts and their sub-dimensions. Additionally quantitative parameters as well as descriptive methods were used to explore how companies rate and rank the merits of public innovation support.

In the last years, a growing number of countries have adopted the innovation system approach to create and disseminate public innovation support systems. Nevertheless this process requires an extensive analysis that could be supported by new models for the assessment of such systems. For this purpose further research priorities were identified:

- research in which the possibility to apply neoclassical and systems of innovation theoretical approach to the assessment of public innovation support are evaluated;
- research in which classification of various public support impact concepts and their sub-dimensions are explored;
- research during which the models for creation, dissemination and evaluation of public innovation support are elaborated.

Taking into account the recent studies on assessment of public innovation support impact, a model for effectiveness assessment of public innovation support has been suggested by hereby authors. By following the proposed assessment principles new public innovation support effects has been identified. The suggested model for the assessment of public innovation support in the European Economic Area is depicted below (Figure 1).

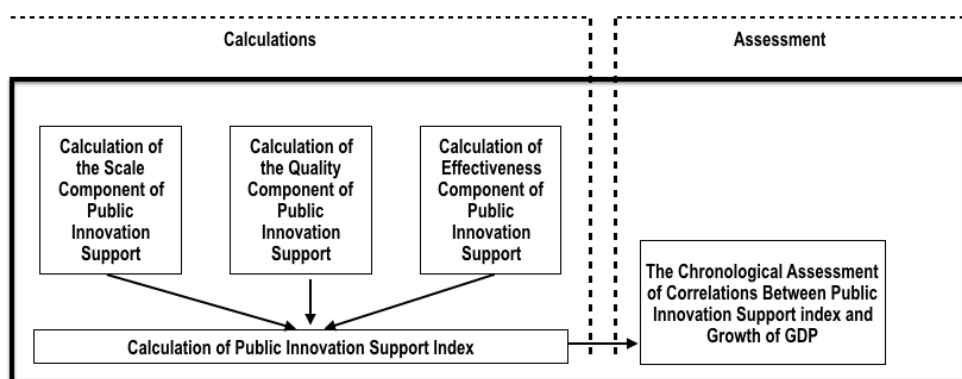


Figure 1. The model for the assessment of public innovation support

Source: own elaboration based on (Almus, 2012; Duguet, 2013; Wong, 2013).

The proposed assessment of public innovation support impact in the European Economic Area is based on public innovation support index and chronological assessment of correlations between public innovation support index and growth rate of GDP in particular country.

Public Innovation Support Index Calculation

By summarising analysed scientific literature, it can be stated that an accurate assessment is necessary for the better design and development of public innovation support systems. By applying common principles for assessment of the existing national support schemes we will be able to compare characteristics of available international experience in designing and development of public innovation support systems. In this context, it is important to propose a new index that can help characterize every public innovation support system in every country. In the context of social sciences index is the relative indicator of the phenomenon in question that characterizes it according to the selected reference system

(Diewert, 2009). For example – consumer price index is a set of prices (with a particular weight) that is expressed in a relative, synthetic and numeric form. In the figure below the summary of different indexes that can be used for public innovation support systems analysis is presented (Figure 2). In this case, the innovation index – the synthetic indicator that not only reflects innovation activities and related public support but also ranks countries/economies in terms of their environment to innovation and their innovation outputs.

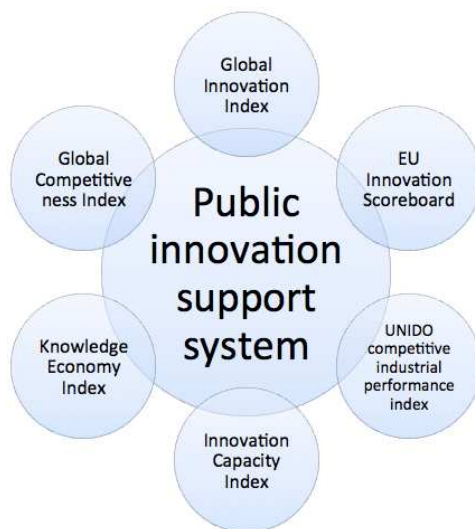


Figure 2. Indexes applicable for the comparative analysis of public innovation support systems

Source: own elaboration based on (World Bank, 2011; UNIDO, 2011; Porter & Stern, 2001; UNCTAD, 2011; Pro Inno Europe, 2012).

Table 1. Indexes that could be used for characterization of public innovation support system

Dimension of the innovation system	CIPI	GII	IS	GCI	KEI	ICI
Investment in Innovation Activities	x	x	x	x	x	x
Output of Innovation Activities	x	x	x	x		
Impact of Innovation Activities		x		x	x	x
Scale of Public Innovation Support		x	x	x	x	x
Quality of Public Innovation Support						x
Impact of Public Innovation Support					x	
Number of indicators in the index	8	81	24	11	12	61
Acronyms: CIPI– Competitive Industrial Performance Index; GII – Global Innovation Index; IS – EU Innovation Scoreboard; GCI – Global Competitiveness Index; KEI – Knowledge Economy Index; ICI – Innovation Capacity Index.						

Source: own elaboration based on (World Bank, 2011; Desai, 2002; UNIDO, 2011; Porter & Stern, 2001; UNCTAD, 2011; Pro Inno Europe, 2012; Claros & Yasmina, 2009).

Through an in-depth comparative analysis of all suggested indexes that could be used to characterize the public innovation support system, it was possible to identify the limitations that are vitally important for further development of public innovation support systems. The results of this analysis are presented in the Table 1.

With respects to conclusions of the comparative index analysis it is necessary to create a new, cumulative index that can reflect all important characteristics of existing public innovation support systems. The proposed public innovation support index should have a composite structure of qualitative and quantitative indicators that reflect three most important dimensions of public innovation support – scale, quality and impact. The proposed set of indicators is presented in the Table 2.

Table 2. Proposed structure of the public innovation support index

Component of the index	Indicator	Source
Quality of Public Innovation Support	Government expenditure on education (% of GDP)	UNESCO Institute for Statistics, UIS online database
	R&D expenditure in the public sector (% of GDP)	Eurostat
	State aid for R&D (% of GDP)	DG Competition, Eurostat
	Researchers in R&D (per million people)	World Development Indicators, World Bank
	New doctorate graduates (ISCED 6) per 1000 population aged 25-34	Eurostat
Impact of Public Innovation Support	Quality of scientific research institutions	World Economic Forum
	Quality of scientific research institutions	World Economic Forum
	Availability of scientists and engineers	World Economic Forum
	Extent of staff training	World Economic Forum
	Quality of the educational system	World Economic Forum
	Public policy stability	World Bank, Governance Indicators
	Government effectiveness index	World Bank, Governance Indicators
	Effectiveness of legal system	World Economic Forum
	Regulatory quality index	World Bank, Governance Indicators
	Rule of law index	World Economic Forum
	Regulatory quality	World Bank, World Governance Indicators
	Ease of starting a business	World Bank, Ease of Doing Business Index 2014
	Press freedom index	Reporters Without Borders, Press Freedom Index 2013
Quality of IPR system	World Economic Forum	

Source: own elaboration based on (World Bank, 2011; UNIDO, 2011; UNCTAD, 2011; Pro Inno Europe, 2012).

MATERIAL AND METHODS

Since the data used for calculation of proposed innovation support index is non-homogenous it should be normalized by applying the formula below.

$$R_n = \frac{R_i - R_{min}}{R_{max} - R_{min}} \quad (1)$$

where:

- R_n - normalized value of particular indicator;
- R_j - analysed value of particular indicator in the i country;
- R_{min} - lowest value of particular indicator;
- R_{max} - highest value of particular indicator.

Data normalization method for public innovation support index values is based on prior suggestions made by authors (Smith & Glass, 1987; Stake, 1995; Thomas & Nelson, 1996) and takes into account the both the maximum and the minimum value.

It is possible to attribute a specific significance for every component of the proposed public innovation support index by applying the formula below:

$$I_i = \frac{I_{mi}\omega_1 + I_{ki}\omega_2 + I_{vi}\omega_3}{\omega_1 + \omega_2 + \omega_3} \quad (2)$$

where:

- I_{mi} - indicator for the scale component of public innovation support index in the country referred as i ;
- I_{ki} - indicator for the quality component of public innovation support index in the country referred as i ;
- I_{vi} - indicator for the impact component of public innovation support index in the country referred as i ;
- ω - significance of the particular component in question.

It should be considered that all public innovation support system components may be equally important for countries in the European Economic Area, especially when taking into account different social, economic, and cultural context. To enable comparability, it is therefore suggested, to consider all components of the index as equally important (for example, as it is a case in calculation of global Entrepreneurship and Development Index).

Such assessment could be accomplished by applying regression analysis, where frequency tables of positive and negative “events” are generated. The “event” in this context is understood as a year to year increase of country’s GDP growth rate in the relation to the increased public innovation support index. It is also important to consider the fact that the impact of public innovation support that results in increase of GDP growth rate could happen with some delay (Drennan & McConnell, 2007; Hood & Miller, 2009; Brown, 2010). Nevertheless the precise quantitative expression of the delay in question still remains unsolved. The approach suggested for solving this challenge is based on application of proposed public innovation index in regression analysis with the GDP growth rate. It is possible to calculate the delay of public innovation support by performing a series of regression analysis with variable time shift (expressed in years) values.

The chronological assessment of interrelations between public innovation support index and the GDP growth rate for a particular country can be performed by following main methodological steps as described below.

At first, the sequence of yearly innovation support index values is created for as long period as possible. In order to achieve statistical significance of the analysis this period should be at least 10 years. The sequence of innovation support indexes is expressed in the following way:

$$I = \{I_k; I_{k+1}; \dots ; I_{k+n}\} \quad (3)$$

where:

- I_k - public innovation support index of the country in the year k ;
 n - the number of years used in the analysis.

Based on the sequence that is expressed by formula no. 3 the sequence of yearly Δ is calculated:

$$\Delta I = \{\Delta I_{k+1}; \Delta I_{k+2}; \dots ; \Delta I_{k+n}\} \quad (4)$$

$$\Delta I_{k+1} = I_{k+1} - I_k \quad (5)$$

where:

- ΔI_k - the change of public innovation support index of the country in the year k .

By following the same principles it is important to compose the sequences of changes in GDP growth rates in the following manner:

$$\Delta GDP_g = \{\Delta GDP_{g(k+1)}; \Delta GDP_{g(k+2)}; \dots ; \Delta GDP_{g(k+n)}\} \quad (6)$$

where:

- ΔGDP_{gk} - the change of GDP growth rate of the country in the year k .

By linking up the sequences expressed in the formula 4, 6 it is possible to compose the frequency table for the regression analysis as it is presented in the table 3.

Table 3. Frequency table for the expression of dependence of public innovation support index, GDP growth rate

$\Delta I \backslash \Delta BVP_g$	$\Delta BVP_g > 0$	$\Delta BVP_g = 0$	$\Delta BVP_g < 0$
$\Delta I > 0$	n_{11}	n_{12}	n_{13}
$\Delta I = 0$	n_{21}	n_{22}	n_{23}
$\Delta I < 0$	n_{31}	n_{32}	n_{33}

Source: own calculations based on data from the Eurostat.

In this case, the frequency expressed as n_{11} shows the number of cases of positive change in value of public innovation support index that resulted in positive GDP growth rate in the same k year. Further on, the regression analysis is performed and particular factors of regression equations are calculated. In the same manner it is possible to compose the frequency tables where the change of GDP growth rate of the country in the year k is compared not to the same year value change of public innovation support index but to the value change that happened earlier (for instance in the year $k-1$, $k-2$, $k-3$...). By doing so we are able to express and calculate the precise delay of public innovation support impact to the GDP growth rate in particular country.

RESULTS AND DISCUSSION

Chronological Assessment of Interrelations between Public Innovation Support Index and GDP Growth Rate in the European Economic Area

In this section the results of verification of the proposed model for the public innovation support characterization as well as for impact assessment is presented. The following

study was performed with data that covers the last 15 years of public innovation support efforts by all countries in the European Economic Area in the period 1997-2012 and that was linked to the GDP growth rate accordingly following the methodological suggestions that were presented in the paragraph above. Table 4 presents the results of calculation of public innovation support index in the European Economic Area with the data for 2012.

Table 4. Public innovation support index in the European Economic Area in 2012

No.	Country	Impact of Public Innovation Support	Scale of Public Innovation Support	Quality of Public Innovation Support	Public Innovation Support Index
1	Finland	6.23	6.07	6.37	6.22
2	Sweden	6.26	5.59	6.17	6.01
3	Denmark	6.25	5.41	6.18	5.95
4	Iceland	5.60	5.51	5.72	5.61
5	Norway	5.93	4.75	5.31	5.33
6	Netherlands	5.68	4.46	5.67	5.27
7	Ireland	5.45	4.37	5.48	5.10
8	Belgium	4.74	4.38	5.92	5.01
9	Austria	5.59	4.26	4.72	4.86
10	Germany	5.22	4.21	5.00	4.81
11	France	4.41	4.57	5.46	4.81
12	Great Britain	5.16	4.11	5.07	4.78
13	Luxembourg	5.91	3.19	3.40	4.17
14	Cyprus	4.89	3.04	4.25	4.06
15	Czech Rep.	3.71	3.93	4.49	4.04
16	Estonia	5.11	3.16	3.69	3.99
17	Liechtenstein	5.73	2.84	3.22	3.93
18	Slovenia	4.06	3.98	3.73	3.92
19	Malta	4.93	2.48	3.07	3.50
20	Portugal	3.87	2.84	3.11	3.28
21	Spain	2.86	3.40	3.50	3.25
22	Hungary	3.57	2.99	2.86	3.14
23	Lithuania	3.62	2.63	2.52	2.92
24	Poland	2.75	2.73	2.99	2.82
25	Latvia	3.40	2.35	2.16	2.64
26	Greece	2.91	2.75	2.18	2.61
27	Slovakia	3.34	2.41	1.97	2.57
28	Romania	2.48	2.41	2.11	2.33
29	Italy	2.41	2.41	2.08	2.30
30	Bulgaria	1.69	2.12	1.35	1.72

Source: own calculations based on data from the Eurostat 2012.

Summarising the data that is depicted in Table 4 all the countries in the European Economic Area can be grouped according to the development level of public innovation support system that in this case is expressed by the value of the proposed public innovation support index:

- Leaders in public innovation support. In this list – first ten countries with the most developed system of public innovation support: Finland, Sweden, Denmark, Iceland, Norway, Netherlands, Ireland, Belgium, Austria and Germany. This group includes countries in which the public innovation support is developed in average more than 20% above the EU average.
- The second group of public innovation support followers includes countries with a performance close to that of the EU average i.e. less than 20% above, or more than 80% of the EU average (Great Britain, Czech Republic, Estonia, Slovenia etc.).
- The last catching-up group includes countries that show public innovation support performance level well below that of the EU average, i.e. less than 60% of the EU average. This group includes Bulgaria, Latvia, and Romania.

By following same procedure, the public innovation support index values were calculated for the period 1997-2012 for all countries in the European Economic Area and then linked to the GDP growth rate accordingly. The results of the regression analysis suggest that there is no statistically significant links between the changes in public innovation support (expressed by proposed index) and country's GDP growth rate. In order to confirm the hypothesis that impact of public innovation support occurs with some delay the logit regression was performed repeatedly by shifting the data by one, two, three or more years. The hypothesis was confirmed when some statistically significant links between the public innovation support index values and GDP growth after 2 or more years. The findings of the research shows that the following delay could be expected to the GDP growth while improving the countries public innovation support system:

- expected public innovation support impact delay in the case of Ireland, Lithuania, Cyprus, Greece –3 years;
- expected public innovation support impact delay in the case of Germany, the Netherlands - 4 years;
- expected public innovation support impact delay in the case of Hungary, Romania - 2 years.

The empirical research results confirm the applicability of the proposed model for the characterization of public innovation support systems in the European Economic Area and its applicability for impact assessment. Proposed methodology for the impact assessment can be applied for a further development of public innovation support systems – e.g. if the index of public innovation support is less than 3 then the scale component of public innovation support should be developed, and if the index of public innovation support is above 3, then the quality component of public innovation support should be developed.

CONCLUSIONS

Generation and development of innovations are extremely important for modern societies facing social and economic challenges. Innovations enable international competitiveness and sustainable technological, political, economic and social growth of countries. The following patterns for the justification of public innovation support effectiveness assessment could be identified:

- innovation is related to risk and changes which result in high technical, technological, process and market uncertainty;
- effective public innovation support is able to reduce the risk of innovation and enhances the scale and performance of innovation in business;
- the diversity of support measures is caused by high investment to the development of public innovation support systems, therefore the assessment of interdependent impacts is very complicated.

Despite of the fact that a wide range of research and theoretical studies have been made on the subject of innovation, further exploration of public innovation support is needed due to a lack of its efficiency and limited opportunities to assess its progress.

The comparative analysis of innovation and public innovation support theoretical frameworks and models reveal that in majority cases the challenges of support effectiveness are solved according to the neoclassical and evolutionary approaches. This limits our understanding of how different public innovation support measures interact and how the support effects innovation in business. Therefore in order to increase the effectiveness of public support it is very important to follow these directions for scientific research: perform complex analysis of public innovation support systems; create and apply in practice methods for assessment and interpretation of the support impact.

Taking into considerations the diversity of public innovation support measures, the effectiveness assessment should be based on holistic innovation paradigm. By following it, public innovation support effectiveness assessment could be performed with the help of the proposed public innovation support index.

The empirical study where application of proposed model was performed revealed the important patterns for the public innovation support impact assessment.

The increase of public innovation support index is a necessary but insufficient condition for the growth of the countries innovation index. In order to successfully develop public innovation support it is important to focus on effectiveness and quality parameters and not on the scale.

The impact of public innovation support occurs only in the long run, the delay of the effect exists. The study revealed that the public innovation support impact to the countries innovativeness will occur with a 3 years delay (a case of Lithuania and some other EU countries).

The proposed index and approach for the impact assessment could be used in the development and implementation of innovation policies in order to assess the impact of public innovation support at both national and EU level. The application of the model is beneficial for: increase of efficiency of innovation support; increase of long term countries competitiveness; exploration of direct and indirect effects of public innovation support; international comparisons of public support systems according to its effectiveness.

REFERENCES

- Almus, M., & Czarnitzki, D. (2011). *The Effects of Public R&D Subsidies on Firms' Innovation Activities: The Case of Eastern Germany*. Manheim: ZEW.
- Antonelli, C. (2009). The economics of innovation: from the classical legacies to the economics of complexity. *Economics of Innovation and New Technology*, 18(7), 611-646. doi: 10.1080/10438590802564543

- Barrett, S., & Hill, M. (1984). Policy, Bargaining and Structure in Implementation Theory: Towards an Integrated Perspective. *Policy and Politics*, 12(3), 219-240.
- Bastalich, W. (2010). Knowledge economy and research innovation. *Studies in Higher Education*, 35(7), 845-857. doi: 10.1080/03075070903406533
- Bator, F. (1958). The Anatomy of Market Failure. *Quarterly Journal of Economics*, 72(3), 351-379.
- Beerepoot, M. (2007). Public Energy Performance Policy and the Effect of Diffusion of Solar Thermal Systems in Buildings: a Dutch Experience. *Renewable Energy*, 32, 1882-1897.
- Bhatta, G. (2003). Don't Just do Something, Stand There. Revisiting the Issue of Risks in Innovation in the Public Sector. *The Innovation Journal: A Special Issue on Innovation in Governance*, 8(2), 40-55.
- Blake, M., & Hanson, S. (2005). Rethinking Innovation: Context and Gender. *Environment and Planning*, 37, 681-701.
- Blindenbach, F. (2006). Innovation in Project-based Firms: the Context Dependency of Success Factors. *Research Policy*, 35, 545-561.
- Boehm, G., & Fredericks, L.J. (2010). Strategic innovation management in global industry networks: The TFT LCD Industry. *Asian Journal of Business Management*, 2(4), 110-120.
- Braczyk, H., Cooke, P., & Heidenreich, M. (1998). *Regional Innovation Systems*. London: UCL Press Limited.
- Brown, L. (2010). Balancing Risk and Innovation to Improve Social Work Practice. *British Journal of Social Work*, 40(4), 1211-1228.
- Cainelli, G., Evangelista, R., & Savona, M. (2004). The Impact of Innovation on Economic Performance in Services. *The Service Industry Journal*, 24(1), 66-81.
- Camic, Ch., Grossm, N., & Lamont, M. (2012). *Social Knowledge in the Making*. Chicago: University of Chicago Press.
- Cassiman, B., & Veugelers, R. (2002). *Complementarity in the Innovation Strategy: Internal R&D, External Technology Acquisition, and Cooperation in R&D*. London: Mimeo.
- Chaminade, C., & Edquist, C. (2006). *From Theory to Practice. The Use of the Systems of Innovation Approach in Innovation Policy*. Oxford: Oxford University Press.
- Claros, L., & Yasmina, M. (2009). *The Innovation Capacity Index: Factors, Policies, and Institutions Driving Country Innovation. Innovation for Development Report 2009-2010*. London: Palgrave Macmillan.
- Desai, P. (2002). *Knowledge Management Research Report*. Oxford: NCC, Blackwell.
- Diewert, W. E. (2009). *Dictionary of Economics. Index Numbers*. London: The New Palgrave.
- Drennan, L., & McConnell, A. (2007). *Risk and Crisis Management in the Public Sector*. London: Routledge.
- Duguet, E. (2013). Appropriation Strategy and the Motivations to Use the Patent System: An Econometric Analysis at the Firm Level. *Annales d'Economie et de Statistiques*, 49(2), 289-328.
- Earl, L. (2004). *A Historical Comparison of Technological Change, 1998-2000 and 2000-2002, in the Private and Public Sectors*. Ottawa: Statistics Canada.
- Edquist, C., & Chaminade, L. (2006). *Innovation Policy in the Systems of Innovation Approach: Some Basic Principles. In Knowledge, Complexity and Innovation Systems*. Vienna: Springer.
- Edquist, Ch. (2001). *Innovation Policy in the Systems of Innovation Approach: Some Basic Principles. In Knowledge, Complexity and Innovation Systems*. Vienna: Springer.

- Ertmer, P.A., & Ottenbreit-Leftwich, A.T. (2010). Teacher technology change: how knowledge, confidence, beliefs and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255-284.
- EUIFP. (2013). *EU Future Program 2014-2020*. Retrieved on November 12, 2014, from http://ec.europa.eu/citizenship/about-the-europe-for-citizens-programme/future-programme-2014-2020/index_en.htm
- Fung, A., & Wright, E. (2001). Deepening Democracy: Innovations in Empowered Participatory Governance. *Politics and Society*, 29(1), 5-42.
- Gallouj, F. (2006). Towards a Theory of Innovation in Services. University of Science and Technology of Lille. *Science and Public Policy*, 4(13), 11-45.
- Gavin, K., & Muers, S. (2002). *Creating Public Value: An Analytical Framework for Public Service Reform*. London: Pinter.
- Goel, S., Dwivedi, R., & Sherry, A. M. (2012). Critical factors for successful implementation of E-governance programs: a case study of HUDA. *Global Journal of Flexible Systems Management*, 13(4), 233-244. doi: 10.1007/s40171-013-0021-1
- Hassink, R., & Dong-Ho S. (2005). The Restructuring of Old Industrial Areas in Europe and Asia. *Environment and Planning*, 37, 571-580.
- Heidenreich, M. (2004). *The Dilemmas of Regional Innovation Systems*. London: Routledge.
- Hood, C., & Miller, P. (2009). *Risk and Public Services*. Oxford: ESRC.
- Juma, C., & Yee-Cheong, L. (2005). *UN Millennium Project. Innovation: Applying Knowledge in Development*. London: Sterling.
- Kosała, M., & Wach, K. (2014). Linking regional knowledge laboratory and growth of SMEs – empirical investigation in southern region of Poland. *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego*, 26, 113-131.
- Luke, B., Verreyne, M. L., & Kearins, K. (2010). Innovative and entrepreneurial activity in the public sector: The changing face of public sector institutions. *Innovation: Management, Policy & Practice*, 12, 138-153. doi: 10.5172/impp.12.2.138
- Lundvall, B. A. (2007). *National Innovation System: Analytical Focusing Device and Policy Learning Tool*. Ostersund: Swedish Institute for Growth Policy Studies.
- MacPherson, M. (2001). *Performance Excellence Principles - Drivers of Innovation in Public Sector Organisations*. Paper presented at the National Conference of the New Zealand, Organ.
- Mankiw, G., Kneebone, R., McKenzie, K., & Row, N. (2002). *Principles of Microeconomics: Second Canadian Edition*. United States: Thomson-Nelson.
- Medema, S. (2004). *Public Choice and Deviance*. US: An Elgar Reference Collection.
- Melnikas, B. (2005). Creation of Knowledge-based Economy in the European Union: the Main Typicalities and New Ideas of Clusterization. *Journal of Business Economics and Management*, 6(2), 87-100.
- Miles, I. (2004). *Innovation in Public Services*. Presentation at PRIME Conference. Manchester.
- Minogue, M. (2005). Apples and Oranges – Comparing International Experiences in Regulatory Reform. Occasional Lecture 13. Bath: Centre for the Study of Regulated Industries.
- Miravete, E., & Pern, J. (2000). *Innovation Complementarities and Scale of Production*. London: Mimeo.
- Mohnen, P., Mairesse, J., & Dagenais, M. (2004). Innovativeness: a Comparison Across Seven European Countries. *Economics of Innovation and New Technology*, 13(1-2), 23-35.

- Naštase, G. I. (2013). Innovative models of increasing competition and competitiveness in science. *Journal of Knowledge Management, Economics and Information Technology*, 2, 233-240.
- Nelson, R. (2002). Technology, Institutions, and Innovation Systems. *Research Policy*, 31, 265-272.
- Noor Al-Jedaiah, M. (2010). The impact of information technology (IT) on decision-making process in the public sector. *Interdisciplinary Journal of Contemporary Research in Business*, 2(5), 320-329.
- Pacharapha, T., & Ractham, V. V. (2012). Knowledge acquisition: the roles of perceived value of knowledge content and source. *Journal of Knowledge Management*, 16(5), 724-739. doi: 10.1108/13673271211262772
- Porter, M. E., & Stern, S. (2001). *National Innovative Capacity. The Global Competitiveness Report 2001-2002*. New York: Oxford University Press.
- Pro Inno Europe (2012). *European Innovation Scoreboard 2012: Comparative Analysis of Innovation Performance*. Luxembourg: Office for Official Publications.
- Rutkauskas, A. V., & Racinskaja, I. (2013). *Integrated intelligence and knowledge, innovation and technology management, nurturing country universal sustainable development*, in 2nd international scientific conference "Problems of modern economy: global, national and regional context", May 23-24, Grodno, Belarus. Grodno: Yanka Kupala State University of Grodno, 1-6.
- Santos Silva, L. C., & Kovaleski, J. L., Gaia, S., Garcia, M., & Junior, A. (2013). Technology transfer and knowledge management in technological innovation center: a case study in Brazil. *Journal of Management and Strategy*, 4(2), 78-87. doi: 10.5430/jms.v4n2p78
- Schibany, A., Gerhard, S., Gretzmacher, N., Falk, M., Falk, R., Knoll, N., Schwarz, G., & Wörter, M. (2014). Evaluation FFF – Impact Analysis. *InTeReg Research Report Series*, 22, 258-299.
- Sherwood, D. (2002). *Creating an Innovative Culture*. UK: Capstone Publishing.
- Smith, M., & Glass, G. (1987). *Research and Evaluation in Education and the Social Sciences*. New Jersey.
- Stake, R. (1995). *The Art of Case Study Research*. New York: Free Press.
- Straits, K. (2002). *Innovation in Singapore Organizations*. Singapore: Straits Knowledge.
- Sullivan, D. M., & Marvel, M. R. (2011). Knowledge acquisition, network reliance and early-stage technology venture outcomes. *Journal of Management Studies*, 48(6), 1169-1193. doi: 10.1111/j.1467-6486.2010.00998.x
- Tan, B. S. (2004). The Consequences of Innovation. *The Public Sector Innovation Journal*, 9(3), 23-39.
- Tekes (2007). Seizing the White Space: Innovative Services Concepts in the United States. *Technology Review*, 205, 15-88.
- Thomas, J., & Nelson, J. (1996). *Research Methods in Physical Activity*. 3rd ed. USA: Human Kinetics.
- UNCTAD. (2011). *World Investment Report 2011: Transnational Corporations and the Internationalization of R&D*. Geneva: United Nations.
- UNIDO. (2011). *Industrial Development Report 2005: Capability Building for Catching-up. Historical, Empirical and Policy Dimensions*. Vienna: United Nations Industrial Development Organization.
- Vargas-Hernandez, J. G., & Garcia-Santillan, A. (2011). Management in the innovation project, *Journal of Knowledge Management. Economics and Information Technology*, 7, 148-171.
- Varghese, P. G. (2013). A communication-focused model for learning and education. *Business Education & Accreditation*, 5(2), 117-130.
- Wong, P., & He, Z. (2013). The Moderating Effect of a Firm's Internal Climate for Innovation on the Impact of Public R&D Support Programmes. *International Journal of Entrepreneurship and Innovation Management*, 3, 56-74.

World Bank. (2011). *Knowledge Assessment Methodology*. Washington DC: World Bank.

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Sustainability of Pension Systems in the Baltic States

Olga Rajevska

ABSTRACT

Objective: The objective of the paper is to identify how the concept of sustainability is understood and ensured in the pension systems of Estonia, Latvia and Lithuania; and what implications it brings to the performance of pension schemes.

Research Design & Methods: Analysis of various conceptual and methodological approaches to the notion of sustainability of pension systems. Comparative analysis of present pension legislation, as well as preceding stage of pension reforms, accompanied by a number of numerical models.

Findings: The understanding of sustainability is limited by narrow 'fiscal' meaning in Latvia, compared to more a multifaceted concept that includes the principle of social fairness and which can be traced in the logic of Estonian and Lithuanian legislators.

Implications & Recommendations: In the long-term, pure financial appreciation of sustainability is misleading, low level of credibility may cripple a financially sound but socially unfair system; the perceived unfairness of redistribution can undermine the public support to, and, therefore, sustainability of pension systems.

Contribution & Value Added: The originality of this work lies in studying how differences at policy formulation stage and in the very design of pension schemes influence pension system sustainability in countries with a very similar initial conditions and socio-economic environment.

Article type: research paper

Keywords: pension systems; sustainability; equity; policy formulation; Baltic States

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INTRODUCTION

The notion of sustainability has many dimensions and many aspects. Firstly, this term emerged in environmental sciences, but quite soon this approach was caught up by scholars in other fields, as well as by politicians, and now can be addressed to economic sectors and individual enterprises, ecosystems, countries, lifestyles, etc. When this “yardstick” is applied to social insurance, particularly, to public pensions provision, it is worth comparing interpretations of the term purported by different actors. Since 2001, the provision of adequate, safe and sustainable pensions is a confirmed common objective at EU level. Generally, the main challenge pension systems sustainability is seen in the ageing of modern European societies and increasing burdens on public finances undermining fiscal sustainability (EC, 2010). However, social practices in the area of social security, or social sustainability (Rasnaca & Niklass, 2014, p. 13) are less commonly considered as a risk factor to a pension system.

We would like to consider how the concept of sustainability is understood and, consequently, ensured in the pension systems of the Baltic States. These countries have very much in common historically; they inherited the same social security systems from the former Soviet Union and underwent concurrent reforms in 1990s. In the middle of 1990s countries in transition were under the influence of a three-pillar model of pension systems propagated by the World Bank (World Bank, 1994). Therefore the general structure of reformed Latvian, Lithuanian and Estonian systems is practically the same and includes:

1. mandatory public pay-as-you-go pillar;
2. mandatory private funded pillar (voluntary in the case of Lithuania, but the vast majority of the working-age population are participating); and
3. voluntary private pension funds.

Funded pillars function similarly, with some minor variations in secondary elements of their design, and their sustainability depends mainly on the overall ability of financial markets to cope with the global challenges that the world economy is and will be facing. Experts point out that “financial crisis in 2008 and 2009 and currently ongoing crisis in euro zone countries indicated that the pension systems in Baltic countries were not properly protected against the real economic risks, which were related to long term unemployment and decrease of return rates below inflation rates, for instruments such as term deposits and government bonds, which historically were considered no risk financial investments” (Bitinas & Maccioni, 2014, p. 17).

Among significant differences between the three Baltic States pension systems, public pension benefit formulas stand out. In order to trace the “roots” of those differences one has to look back into policy formulation stages. The aim of the paper is to identify how the concept of sustainability is understood and ensured in the pension systems of the three Baltic countries.

LITERATURE REVIEW

Policy Formulation: Pension Reforms in the Baltic States

Many authors have stressed linkages between the policy formation and implementation processes. Danish researcher Soren Winter (1990) has identified that successful implementation is likely to be positively related by the level of attention by the policy proponents in the policy formation process. Level of attention is affected by the length of the decision-making period, the number of participants, and the number of competing issues on the agenda. Attention to one particular policy is affected by the way policies are grouped into the reform packages. Therefore, limited attention tends to produce decisions where no direct relationship and internal consistency among policy formation, policy goals and designs, policy implementation can be expected (Winter, 1990, pp. 25-26).

Pension reform in Latvia was performed with the active participation and with the guidance of the World Bank experts, who, inter alia, recommended Latvian legislators to adopt a then innovated Swedish concept of notional defined contribution individual pension accounts. Swedish specialists played a leading role in designing the reform in Latvia, while Latvians almost fully relied upon their experience and competence. From the very beginning, the working pension reform preparation group consisted only of two experts from the Latvian Ministry of Welfare and three Swedish experts. Despite that, all political parties in the Saeima (Latvian Parliament) supported the principles of pension reform presented by the working group to the government and then to the legislature in the beginning of March 1995. As a result, the law has passed the parliament very fast (in November 1995), the debates were short and no wide audience participated in discussions (Vanovska, 2006). Dominating issues on public and policy agenda were connected with severe banking crisis in Latvia in the spring and summer 1995 and national elections in autumn 1995. Latvia was the first country in the world to launch the notional defined contributions (NDC) system in January 1996. Under this scheme, the entire state-provided pension is dependent on individual's contributions to his or her notional pension account. As noted by Katarine Muller (2006), "it also led to the adoption of transition rules for the new NDC system that were highly arbitrary and created many horizontal inequities among similarly situated persons."

In Lithuania, a more dominant role was played by the Lithuanian Free Market Institute (LFMI), an NGO supported by the Cato Institute, a libertarian think tank in Washington, D.C. which has long sought to dismantle social security in the US. Romas Lazutka (2006) describes how, through a series of critical newspaper articles in the mid-1990s, the LFMI planted the seeds of public discontent with the state pension system. These articles portrayed the Chilean pension system as ideal for Lithuania. As to other intra-government actors, the Lithuanian Ministry of Social Security and Labour initially showed the typical Bismarckian-Beveridgean stance, defending social security and opposing the move towards mandatory prefunding. As elsewhere, this Ministry proved too weak to prevent pension privatisation, however.

Estonians were more cautious; they did not use any external assistance, demonstrated a much stronger self-reliance, and organised broad public and political debates on the reform. The draft law (prepared in 1997) was discussed in tripartite negotiations among the

Cabinet, employers, and trade unions to allow for the different potentially affected interests to be integrated in the draft. Compared with Latvia and Sweden, the Estonian state-provided pension scheme financed from the social security tax, consists of three different layers: a minimum flat pension rate, a contribution-related share (calculated based on coefficients rather than on exact contributions), and a share dependent on the length of employment. A possibility of implementing NDC was considered but rejected. The policymakers specifically stated that the system was developed independently and did not copy any existing systems in other countries (Tavits, 2003, p. 647). Their current so called “point system” resembles German and French schemes, and was launched three years later, in 1999. We fully agree with the conclusion of researcher M. Tavits that “the Estonian reform process was open, driven by collaborative networks, and relied on local activism, whereas the Latvian reform process was closed and accommodated fewer interests” (Tavits, 2003, p. 649).

Sustainability: Conceptual and Methodological Approaches

Generally, international experts recognize that the study countries have managed to achieve a relatively high level of sustainability. For instance Allianz Global Investors research group are computing what they call a “Pension Sustainability Index” (PSI). Three such reports edited by Dr Renate Finke have been published: in 2009, 2011 and 2014. The authors of the PSI are awarding Latvia and Estonia with the best scores not only among Eastern Europe: Latvia takes the first place and Estonia the second one, then follows Russia (that would lose such high score should the very recent pension reform be taken into account by Allianz experts), and Lithuania takes the fourth place in the region, - but also compared to many developed countries – better than the United Kingdom, Canada, Finland Germany, Austria, France, Luxembourg and many others.

For the purpose of this article, the fundamental issue is not the high scoring, but the meaning of “sustainability” that the above experts are attributing: what factors are taken into account. In the methodology description Allianz provides the “overview of sub- indicators that would weight results positively:

- The national pension system has been designed to meet the needs of an aging society, e.g.:
 - the first pillar PAYG system offers moderate benefits and covers a large percentage of the workforce;
 - the legal retirement age is high and/or is linked to life expectancies;
 - funded pillars are in place to provide additional old-age income.
- National demographics do not put much pressure on reform, e.g.:
 - the old-age dependency ratio is favourable;
 - any changes in the work-to-retirement balance are expected to be moderate;
- The government is in a position to cushion reform pressures, e.g.:
 - public pension payments are low;
 - the state has deep pockets so that it can either take on more debt or increase the burden on the economy to finance rising pension payments.”

Another think tank of pension financial experts, Australian Centre for Financial Studies, starting from 2009, annually calculates another index: Melbourne Mercer Global Pension Index. The team of the researched includes professors from Oxford University, University of Toronto, University of Melbourne, and other institutions. This year it has been calculated for the 6th time, and covered 25 countries across the world (the Baltic States are not included in this short list). The overall index value for each country represents the weighted average of the three sub-indices. The weightings used are: 40% for the adequacy sub-index + 35% for the sustainability sub-index + 25% for the integrity sub-index. Each sub-index is based on a set of indicators. The sustainability sub-index considers a number of indicators that include: economic importance of the private pension system, its level of funding, the length of expected retirement both now and in the future, the labour force participation rate of the older population and the current level of government debt. Thus, one can find practically the same set of parameters as are used by Allianz Group.

These approaches are also similar to the one of the World Bank experts whose definition of sustainability of a pension system is the following: “a sustainable system is one that is financially sound and can be maintained over a foreseeable horizon under a broad set of reasonable assumptions” (Holzmann *et al.*, 2008).

The same logic can be found in the indicator of financial sustainability gap S2, devised by the European Commission’s Working Group on Ageing, with a focus on how population ageing contributes to the fiscal sustainability gap (Zaidi, 2010). The S2 indicator approximates the gap (as % of GDP) that must be closed permanently in order to ensure that governments will be able to finance all future public budget obligations. The indicator provides a compact measure to approximate the size of risks to public finance sustainability when a long-term perspective is taken. The S2 indicator can be decomposed into two components so as to also point to the sources of the risks and appropriate policy response required. Firstly, there is the gap arising due to the starting fiscal position, referred to as the Initial Budgetary Position. Secondly, there are the additional costs related to population ageing and expenditures on pensions, healthcare and long-term care. This component is referred to as the Long Term Changes. While Estonia demonstrated low values (lower than EU average), both Lithuania and Latvia were classified into the group of the countries with high sustainability gap, thus having higher risks of underfinancing future obligations.

Aaron George Grech of London School of Economics argues that “there appear to be four concerns in terms of ensuring pension system sustainability. From a political economy perspective, the adequacy of the system for the average voter needs to be ensured. If a system is not seen as beneficial by the electoral majority, namely by not helping them maintain their pre-retirement living standards, it could be voted out. Similarly, if a system is not seen as able to alleviate poverty, the political pressures that led to the setting up of social assistance to elderly people during the early part of the twentieth century might re-emerge. In the process of achieving these two goals, policymakers need, however, to take into consideration the balance of transfers between different generations. Political pressures for reform can arise either because systems are not achieving the goals that individuals expect of them or because individuals are unhappy about the deal they are getting compared to previous generations. Individuals can be concerned about the level of taxes they pay to finance the system, but also by the level of their pension transfers compared

to previous generations. Social sustainability can only be achieved if policymakers understand these tradeoffs and optimise pension systems in this light.” (Grech, 2010, p. 11) The aspect of adequacy will not be discussed in detail in this paper; those interested are invited to address the author’s article “Pensions Adequacy in the Baltic Region” (Rajevska, 2014). Here I would like to draw the reader’s attention to one more dimension, tangentially mentioned by Dr Grech. This dimension can be traced in other sources, as well.

Thus, according to OECD definition (OECD, 2009), “fiscal sustainability implies four main characteristics:

- solvency, or governments’ ability to finance existing and probable future liabilities/ obligations;
- growth, or the capacity of government to sustain economic growth over an extended period;
- *fairness, or governments’ ability to provide net financial benefits to future generations that are not less than the net benefits provided to current generations*; [emphasis added – O.R.] and
- stable taxes, or the capacity of governments to finance future obligations without increasing the tax burden.”

A similar, yet more multifaceted approach to pension’s sustainability can be found in EU documents (EC, 2010):

“Member States are committed to providing [...] the financial sustainability of public and private pension schemes, bearing in mind pressures on public finances and the ageing of populations, and in the context of the three-pronged strategy for tackling the budgetary implications of ageing, notably by: supporting longer working lives and active ageing; *by balancing contributions and benefits in an appropriate and socially fair manner*; [emphasis added – O.R.] and by promoting the affordability and the security of funded and private schemes; [...]”.

Krzysztof Hagemeyer and John Woodall (2014) note that the understanding of the “socially fair manner” is likely to differ significantly as between different societies, at different times, and in differing economic conditions:

“The designs and shapes of pension systems are usually the result of social contracts, which may be more or less explicit in character. Societies define their objectives through an ongoing debate around a following set of questions:

- What should “retirement” (as a status) represent: simply the condition of a person who is no longer able to work, or rather a well- deserved period of rest after working life?
- At what age or after how many years of a working career should retirement (as an event) typically take place?
- What level of benefits is seen as appropriate by the society as representing an adequate guarantee to its elderly members – should this comprise only the alleviation of poverty for those unable to support themselves, a (defined) minimum income for all residents in old-age, or a guaranteed level of replacement rates (as a proportion of pre-retirement income)?
- What is the desired degree of solidarity in financing the incomes of retired persons; should individuals save for themselves, should the younger generation(s) support the

elderly as a matter of principle; or should support be restricted to a minimal level for those unable to save enough for their own needs?" (Hagemeyer & Woodall, 2014).

For example, Latvian researches add the following criteria to the list of necessary conditions making Latvian pension sustainable: a) a substantial part of the retired persons' welfare will be depending on family support (Puķis & Dundure, 2012); and b) reversal of gender discrimination should be achieved (Dundure, 2013).

Furthermore, the EU documents stress that "the sustainability of PAYG pensions ultimately depends on the strength of the underlying economy, such as fewer people working and paying contributions, lower economic growth and depending also on institutional arrangements on national public debt" (EC, 2012b). Therefore, not only financial indicators should be looked at when assessing sustainability, but also (and even more important) other parameters of economic life: productivity, competitive ability, embeddedness into global chains, infrastructure, and many others.

MATERIAL AND METHODS

The analysed literature led to formulation of two research hypotheses:

1. Differences at policy formulation stage in the levels of involvement of foreign actors resulted in significant dissimilarities at implementation stage.
2. Different actors read different meanings in the notion of sustainability. A narrower, purely fiscal, or a broader, socially oriented interpretation of the term can be traced in the design and performance of pension schemes in three Baltic States.

In order to see what understanding of sustainability prevails among legislators of the study countries, the institutional designs of existing pension systems are analysed. Comprehensive descriptions of the status quo can be found in the most recent ASISP country reports on pensions, health and long-term care: for Estonia (Vork & Paat-Ahi, 2013), Latvia (Zilvere, 2013) and Lithuania (Medaiskis & Jankauskiene, 2013). Normative acts and regulations in force are obtained at the web-sites of state social insurance bodies: the Social Insurance Board of the Republic of Estonia (<http://www.sotsiaalkindlustusamet.ee>), the State Social Insurance Agency of the Republic of Latvia (<http://www.vsaa.gov.lv>) and the State Social Insurance Fund Board of the Republic of Lithuania (<http://www.sodra.lt>). All three institutions also provide statistical data on pensions.

RESULTS AND DISCUSSION

Pension Systems of the Baltic States – Current Status

The first-pillar benefit in Estonia and Lithuania comprises of two main components: a basic non-contributory one (in Estonia it is absolutely flat and presently – December, 2014 – equals to EUR 126.82, in Lithuania it depends on the length of service and lies in the interval from EUR 62.56 to EUR 125.11), and an insurance component, constructed quite similarly in the two countries and based on what is called a point-system. A person is annually awarded with a number of points that are equal to the ratio between his/her salary and nationwide average insured wage in the respective year (average insured wage differs from average wage, since the first takes into account those unemployed, on sick-leave, on maternity or child-care leave, etc.). Thus, if one's salary was equal to the average insured

wage – s/he gets one point, if it was twice higher than average – two points, if twice lower – 0.5 points, and so on. The points earned throughout the working career are then summarized, and the sum multiplied by the monetary value of one year. There is also the third component for the pre-reform service period (however, it is losing its importance as the years go by), and it is calculated likewise. In Estonia, all pre-reform years of service (i.e. those before 1 January 1999) have a value of one point, irrespectively of actual earnings. In Lithuania for each pre-reform year of service (i.e. those before 1 January 1994), a person gets as many points, as was his/her average ratio in post-reform working career (or as was his ratio in 1984-1993 if reliable wage data for this period is available).

Both the basic component and the monetary value of one year are from time to time revised and approved by the government. In Estonia, the law prescribes annual revisions according to strict and univocal rules: a) in no case these values can decrease, even in periods of deflation and/or downfall in average insured wage; and b) the basic component grows faster than the monetary value of one year. In Lithuania, both figures are approved discretionary, which makes easier to manipulate the flattening (by increasing the basic part) and differentiation (by increasing the one-year value) of pensions. There is no rule prohibiting diminution, and in 2009 the monetary value of one year was even lowered by 21.4% (but the basic part was concomitantly increased by 9.1%).

Latvian first-pillar benefits do not include any basic flat component. The benefit is earned by all insured individuals by “directing” part of their social insurance contributions to the personalized notional pension capital account. No actual money transfer takes place, this capital exists only as a record in State Social Insurance Agency database, and the whole scheme is known as NDC: notional (or, in another abbreviation expansion, also ‘non-financial’) defined-contribution. The pension value is the sum of notional capital at retirement divided by the projected life expectancy at retirement age. The notional capital for the pre-reform period (years of service prior to 1996) is calculated based on average actual personal earnings in 1996-1999, and this rule is extremely unfair to those whose wages were low, unemployed or those employed in shadow economy (that was quite widespread in 1990s).

The below diagram (Figure 1) shows a theoretical old-age pension benefit for a person with 40 years of employment record whose wage during all his/her working life was changing in accordance with changes of average countrywide wage. Although in the case of average wage the resulting figures for Estonia and Latvia are quite close, the difference for those having earned twice more or twice less than average is very clearly visible. Lithuania has the lowest nominal pension benefits, but if one expresses them in purchasing power (and not in EUR), the difference will become much smaller. Latvia also implies the highest income taxes on pensions, as well as to employment earnings (Skačkauskienė, 2013).

It is recognized (see, for example, Chlon-Dominczak & Strzelecki, 2013) that NDC systems almost lack redistribution instruments, and therefore are not adequate for countries with a relatively large gap between the rich and the poor (and Latvia has the highest GINI index in Europe) – material stratification is not smoothed in old age, and combined with low replacement rates, it leads to massive poverty: almost 60% of Latvian pensioners get a net pension benefit lower than the official subsistence minimum, meanwhile 0.5% get more than 1000 euro per month, and there are pensions of 5000 euro and higher.

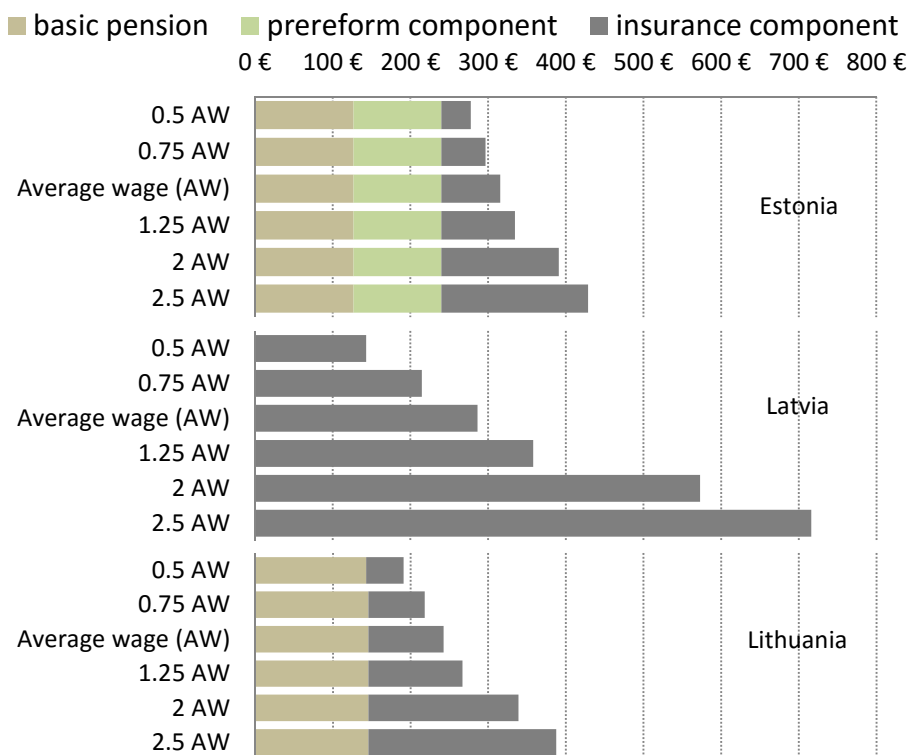


Figure 1. Pension benefit for a person retiring in December 2014 with 40 years service record (EUR) depending on his/her wage

Source: own calculations based on statistical (historical average insured wages in Latvia) and normative data of national social insurance boards.

The accrued notional capital is annually valorised (up-rated) in line with increase in the covered wage bill. These annual indices imitate the role of interest rates in funded schemes. When the total amount of wages on a nationwide scale drops below the last year figure – the interest rate is negative, and all prospective pensioners will suffer lower pensions. This mechanism was incorporated into the system in order to maintain financial sustainability in times when the cardinality of cohorts entering the labour market is lower than the cardinality of cohorts retiring from the labour market. It was anticipated that the constant growth in wage rates and labour productivity would neutralise the effect of decreasing working population and the index therefore would manage to remain above one. Massive emigration, accompanied by wage-cuts and sharp rise in unemployment in the crisis years resulted in negative pension capital indexation in three successive years 2009-2011, and the average amount of a newly-awarded pension benefit dropped by 15% in the first quarter of 2012 compared to the first quarter of 2009. Abolition of the so-called “supplements” (one euro per each pre-reform year of service, i.e. prior to 1996) for newly awarded pensions from 2012 had enhanced this tendency. It was calculated, that a person with 45 years’ service record who was receiving the average nationwide wage throughout his/her career retiring in 2009 got a 24% higher benefit, than a similar person retiring in

2012 did. Pension indexation rules have been recently amended in Latvia, the pre-crisis formula was prescribing annual indexation according to changes in the consumer price index, but it was revoked in 2009, and since then the government has only made ad hoc indexation of small pensions (not exceeding 285 euros) in 2013. In 2014 another ad hoc indexation took place: indexation was applied to all pensions, but only to the part below 285 euros. Further on, the threshold amount for indexation will be set at 50% of average insured wage, and the indexation ratio is to be based on both consumer price index (75%) and increase in the covered wage bill (25%).

Thus, both Latvian and Estonian pension systems include similar balancing mechanisms of matching the assets with liabilities by annual wage-bill index (total amount of wages paid nationwide). Estonian legislation prohibits diminution in benefits for the newly-qualified pensioners: for the same service record (same contributions) they will get as much as those who already enjoy retirement, while valorisation of notional pension capital in Latvian scheme generates serious distortions: if we compare two pensioners with the same service record – for instance, 45 years of service and average salary, a person who retired in 2010 received (and is still receiving) a 24% higher benefit than one who retired in 2012.

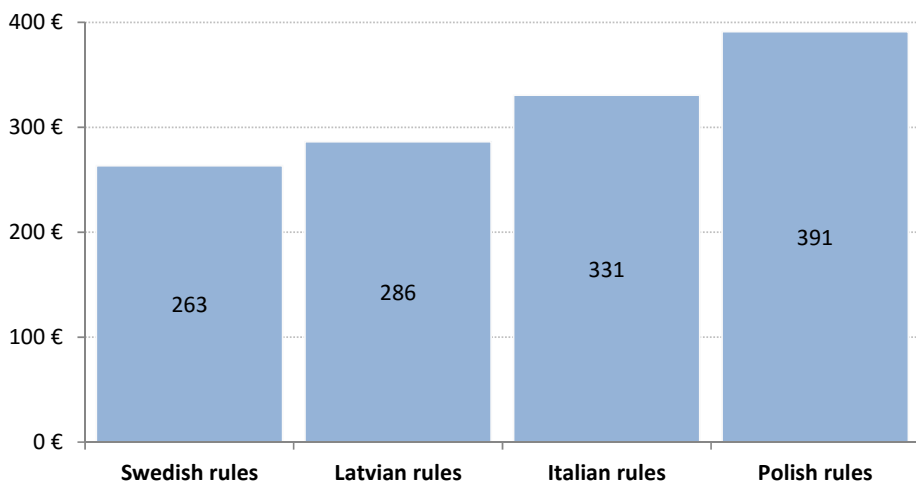


Figure 2. Pension benefit for a person retiring in December 2014 with 40 years service record (EUR) and average wage, depending on NDC valorisation rules (what-if simulation)

Source: own calculations based on statistical data of the State Social Insurance Board (historical average insured wages) and Central Statistical Bureau of Latvia (consumer price indices and GDP).

This is not an intrinsic feature of NDC – valorisation rules differ among countries, for instance indexation of notional capital in Poland is linked not only to the wage-bill index, but also to consumer price index (and in no case can it be lower than inflation), in Sweden, valorisation ratio is linked to average wage growth (3-year sliding average), in Italy – to GDP growth (5-year sliding average). Should Latvia have also adopted such valorisation principles, the benefits would be significantly different (Figure 2).

Indexation of notional pension capital in Latvia can be negative, and it was negative during the three consecutive years 2009-2012. The effective value of contributions made prior to 2008 has contracted by almost one third from 2009 to 2012.

The system is designed so as to achieve the balance between the inflows and outflows as fast as possible and at the expense of individual participants, who bear all the risks.

There are possibilities of premature retirement (up to two years before the legally stipulated retirement age in Latvia, three years in Estonia and five years in Lithuania), but in such case the amount of pension is reduced. The premature pension benefit makes 50% of an ordinary calculation in Latvia irrespectively of the time left until the official pension age, while in Estonia and Lithuania, the amount the premature benefit is reduced by 0.4% for each month falling short of the legally stipulated retirement age (4.8% per year). As to the postponed retirement, in Estonia the pension benefit is increased by 0.9% for each month by which a person postpones his or her application for the pension (that is 10.8% per year), in Lithuania the pension is increased by 8% for each year of postponement. In Latvia, since the factor of average life expectancy is a part of general formula, the benefit is automatically increased when a person opts to retire later than the official pensionable age and no additional incentives for late retirement are provided.

The second pillar is mandatory in Estonia for people born in 1983 and later and in Latvia for people born on July 1, 1971 and later. Participation is voluntary in Lithuania irrespectively of age, voluntary for those born between July 2, 1951 and June 30, 1971 in Latvia, and was open for voluntary subscription until October 31, 2010 for those born in 1942-1983 in Estonia. Those who have joined the 2nd pillar voluntarily do not have the right to "change their mind" and leave the pillar, with the only exclusion for the period from 01/04/2013 till 30/11/2013 in Lithuania, where they could switch back to fully PAYG scheme in Lithuania while their accumulated accounts will be managed by pension accumulation companies until their retirement age (by the end of the transition period 24 thousands or 2.1% of the 2nd pillar participants had used this opportunity). Practically, almost all potential voluntary participants have exercised their right to join the II pillar because of massive advertising campaign by private pension funds. However, recent studies (Bartkus, 2013) demonstrate that capital growth in the majority of pension plans is insufficient to provide the adequate amounts of future pension annuities (as was anticipated at the time of introduction of the funded pillar).

In Estonia and Lithuania, if a participant dies before reaching the pension age, units of mandatory funded pensions are inheritable. In Latvia, on a contributor's death, funds are returned to the first pillar and subsumed in the overall pensions budget.

While the role of funded pillars is increasing with the ageing of population they do not contribute to ensuring compliance with the equitability goal: benefits in funded schemes are very much depending on rates of return produced by the pension plan(s) chosen by a participant, and on volatile security markets. Thus the rule "same benefits for same contributions" conflicts the very nature of funded pillars. No redistribution from lifetime rich to lifetime poor is provided in these pillars, as well. Even more, promotion of third pillar voluntary pension plans (by granting tax reliefs on the contributions made to private funds) can be successful only among those persons who have enough "extra" money that can be directed to long-term savings. Those who live from paycheck to paycheck can

hardly afford to withdraw any additional amounts from their household budgets and cannot, therefore, expect any significant third-pillar supplement to their mandatory 1st and 2nd pillar old-age pension benefits. This effect is further enhanced by the level of financial literacy: as shown in recent international research findings (Lusardi & Mitchell, 2011), people with higher levels of education – who, as a rule, have higher incomes and therefore make larger contributions to pension funds, - are better informed in financial matters and are less vulnerable to risks of choosing an inappropriate investment strategy. These conclusions are supported by Latvian researches as well in respect of this country (Stavausis, 2013). Less educated persons, whose incomes are lower, are more exposed to the risk of making a wrong investment choice. In this context, funded pillars are rendering a disservice to lifetime poor, causing further distortion in income distribution at old age. The larger share of total pension tax goes to the second pillar – the higher degree of inequity the system generates.

The design of Latvian system was strongly influenced by the narrow understanding of sustainability, i.e. pure balancing assets with liabilities; such aspect fairness (or equity in other terms) is lacking in Latvian pension scheme.

CONCLUSIONS

The approach realized in Latvian pension legislation can be considered as a solution for financial sustainability in its very narrow sense. In our opinion, it is to a great extent rooted in the strong influence of the World Bank experts on pension reform orchestration in 1990s. In the Latvian pension scheme, all the risks of contemporary globalized economy to the maximum extent have been transferred to the taxpayers. Pension systems in Estonia and Lithuania demonstrate more signs of a fair distribution of benefits and risks both in the I and II pillars, and therefore have better compliance with the principles of social sustainability. Meanwhile, the Estonian system is the most transparent and has the most clearly defined “rules of the game”.

A pension system cannot be sustainable when people do not trust in it. The level of credibility granted to pension system by the population is significantly higher in Estonia. Public opinion polls show that Estonians are much less concerned about whether their income at old age will be sufficient to live in dignity, demonstrating more positive results than EU average. Estonians return higher ratings when requested to evaluate the situation with pension provision in their country and its anticipated development; they are, on the one hand, more aware of coming population ageing, but, on the other hand, less worried about this fact. They demonstrate significantly higher level of credibility in their pension system. The numbers of emigrants from Latvia and Lithuania are by an order of magnitude greater than from Estonia, in general – Latvian and Lithuanian people are less motivated to pay taxes honestly, thus reducing the taxation base and increasing the burden on those who are paying, and in the long-term, such policy does not seem sustainable at all. In our opinion, the misleading purely financial perception of sustainability prevailing among Latvian decision makers is caused by the nature of policy design at the policy formulation and implementation stages.

REFERENCES

- Barr, N. (2006), Non-Financial Defined Contribution Pensions: Mapping the Terrain. In Holzmann, R. & Palmer, E. (Eds.), *Pension Reform: Issues and Prospects for NDC Schemes* (pp.57-70). The International Bank for Reconstruction and Development / The World Bank.
- Bartkus, A. (2013). On Future Pensions from Second Pillar Pension Funds. *Organizations and Markets in Emerging Economies*, 4-1(7), 121-140.
- Bitinas, A., & Maccioni, A.F. (2014). Lithuanian Pension System's Reforms Transformations and Forecasts. *Universal Journal of Industrial and Business Management*, 2(1), 13-23.
- Chłoń-Domińczak, A., & Strzelecki, P. (2013). The minimum pension as an instrument of poverty protection in the defined contribution pension system – an example of Poland. *Journal of Pension Economics and Finance*, 12, 326-350.
- Dundure, I. (2013). Role of the Elderly in Building Sustainability of Pension System. *Journal of International Scientific Publication: Economy & Business*, 6(2), 131-141.
- European Commission. (2009). Monitoring the social impact of the crisis: public perceptions in the European Union. Analytical report. *Flash EB Series No. 276*. Retrieved on November 1, 2014, from http://ec.europa.eu/public_opinion/flash/fl_276_en.pdf
- European Commission. (2010). Progress and key challenges in the delivery of adequate and sustainable pensions in Europe. *European Economy*, 71. Brussels: DG Economic and Financial Affairs.
- European Commission. (2012a). *Active Ageing*. Report. Special EB no. 378. Retrieved on November 1, 2014, from http://ec.europa.eu/public_opinion/archives/ebs/ebs_378_en.pdf
- European Commission. (2012b). *Pension Adequacy in the European Union 2010-2050*, p. 118. Retrieved on November 1, 2014, from <http://ec.europa.eu/social/BlobServlet?docId=7805&langId=en>
- Grech, A.G. (2010). *Assessing the sustainability of pension reforms in Europe*. Centre for Analysis if Social Exclusion, London School of Economics. Retrieved on November 1, 2014, from <http://sticerd.lse.ac.uk/dps/case/cp/CASEpaper140.pdf>
- Hagemeyer, K., & Woodall, J. (2014). How should the adequacy of pension coverage be balanced against financial sustainability? *Australian Journal of Actuarial Practice*, 2, 21-32.
- Holzmann, R., & Hinz, R.P. (2005). *Old Income Support in the 21st Century: An International Perspective on Pension Systems and Reform*. Washington, DC: The World Bank.
- Holzmann, R., Hinz, R.P., & Dorfman, M. (2008). Pension Systems and Reform Conceptual Framework. *Social Protection Discussion Paper 0824*, The World Bank. Retrieved on November 1, 2014, from <http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/SP-Discussion-papers/Pensions-DP/0824.pdf>
- Holzmann, R. (2012). Global Pension Systems and Their Reform: Worldwide Drivers, Trends and Challenges. *Social Protection & Labor Discussion Paper 1213*. The World Bank.
- Lazutka, R. (2006). Pension Reform in Lithuania. In E. Fultz (Ed.), *Pension Reform in the Baltic States* (pp. 267-350). Budapest: International Labour Office.
- Leppik, L., & Võrk, A. (2006). Pension Reform in Estonia. In E. Fultz (Ed.), *Pension Reform in the Baltic States* (pp. 17-142). Budapest: International Labour Office.
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of Pension Economics and Finance*, 10, 497-508.
- Medaiskis, T. (2011). Pensions at the Time of Recession. The Case of Lithuania. *Zeitschrift fur Socialreform (Journal of Social Policy Research)*, 57(3), 251-266.

- Medaiskis, T., & Jankauskiene, D. (2013). ASISP Country Document. Pensions, health and long-term care. Lithuania. Retrieved on November 1, 2014, from http://socialprotection.eu/files_db/1334/LT_asisp_CD13.pdf
- Muller, K. (2006). The Political Economy of Pension Privatisation in the Baltics. In E. Fultz (Ed.), *Pension Reform in the Baltic States* (pp. 397-420). Budapest: International Labour Office.
- OECD (2009). *Policy Brief: The Benefits of Long-term Fiscal Projections*. Retrieved on November 1, 2014, from <http://www.oecd.org/governance/budgetingandpublicexpenditures/43836144.pdf>
- Pūķis, M., & Dundure, I. (2012). Sustainability of the Pension System in Latvia. *Journal of Economics and Management Research*, 1, 139-154.
- Rajevska, O. (2013). Equity Criterion in Pension Systems Assessment and Its Manifestation in Estonian and Latvian Pension Schemes. *Journal of Economics and Management Research*, 2, 118-130.
- Rajevska, O. (2014). Adequacy of Pensions in the Baltic Region. *Reģionālais Ziņojums (Regional Review)*, 10, 41-51.
- Rajevska, F., Rajevska, O., & Stavausis, D. (2014). Challenges for the Sustainability of Latvian Pension System. In B. Bela (Ed.), *Latvia. Human Development Report 2012/2013. Sustainable Nation* (pp. 13-33). Riga: Advanced Social and Political Research Institute of the University of Latvia.
- Rasnača, L., & Niklass, M. (2014). Social Sustainability: Are Unequal Societies Sustainable?. In B. Bela (Ed.), *Latvia. Human Development Report 2012/2013. Sustainable Nation* (pp. 34-44). Riga: Advanced Social and Political Research Institute of the University of Latvia.
- Schokkaert, E., & Van Parijs, P. (2003). Social Justice and the Reform of Europe's Pension Systems. *Journal of European Social Policy*, 13(3), 245-279.
- Skačkauskienė, I. (2013). Peculiarities of Labour Income Taxation in the Baltic States. *Entrepreneurial Business and Economics Review*, 1(4), 57-69.
- Stavausis, D. (2013). Izglītības veicināšana finanšu jautājumos kā spējinašanas instruments Latvijā: valsts fondēto pensiju gadījums. In F. Rajevska (Ed.), *Sociālā cilvēkdrošība: spēju attīstība, sadarbība, iekļaušana* (pp. 141-160). Rīga: LU Akadēmiskais apgāds.
- Tavits, M. (2003). Policy Learning and Uncertainty: The Case of Pension Reform in Estonia and Latvia. *The Policy Studies Journal*, 31(4), 643-657.
- Vanovska, I. (2006). Pension Reform in Latvia. In E. Fultz, (Ed.), *Pension Reform in the Baltic States* (pp. 143-266). Budapest: International Labour Office.
- Vork, A., & Paat-Ahi, G. (2013). ASISP Country Document 2013. Pensions, health and long-term care. Estonia. Retrieved on November 12, 2014, from http://socialprotection.eu/files_db/1372/EE_asisp_CD13.pdf
- Winter, S. (1990). Integrating implementation research. In D. Palumbo, & Calista, D. (Eds.), *Implementation and the Policy process. Opening-up the Black Box* (pp. 19-38). New York: Greenwood Press.
- World Bank. (1994). *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*. Oxford: Oxford University Press.
- Zaidi, A. (2010). Sustainability and Adequacy of Pensions in EU countries: Synthesis from a Cross-national Perspective. *European Papers on the New Welfare*, 15, 65-76.
- Zilvere, R. (2013). ASISP Country Document 2013. Pensions, health and long-term care. Latvia. Retrieved on November 1, 2014, from http://socialprotection.eu/files_db/1415/LV_asisp_CD13.pdf

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